The Acquisition of French as a Second Language

Edited by
Martin Howard

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Contents

About the Editor

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Editorial

Introductory Article: French in Second Language Acquisition Research

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Emerging in the late 1960s and early 1970s with the ground-breaking work of Stephen Pit Corder, followed by Larry Selinker (1972) conceptualisation of 'interlanguage', second language acquisition (SLA) has developed into a highly buoyant independent field within the wider terrain that is applied linguistics. Over the last number of decades, Corder's and Selinker's initial innovative characterisation of the learner's language system, interlanguage, ignited extensive investigation of the nature of interlanguage development and second language (L2) processes and representation. That extensive body of work has drawn on and served to inform diverse approaches to SLA, including those for example within generative, formal, functionalist, and variationist traditions. Through their detailed tracking of learner language using diverse data elicitation types, ranging from judgement and completion tasks to narrative and personal retellings, along with other free production tasks such as semi-guided conversations, studies have sought to capture the detail underlying various aspects of the learner's language system as it evolves during the learning trajectory. Crucially, that detail has informed our understanding of the nature of language acquisition and the acquisition challenge at play in an L2, in some cases in comparison with first language (L1) learning and bilingual L1 acquisition (2L1), including heritage language learning, as well as third language (L3) learning.

While interlanguage studies have served to considerably shape our understanding of L2 acquisition processes and outcomes, the early 2000s saw a social turn complementing the more psycholinguistic orientation which was seen to previously predominate, albeit not exclusively, in much previous work. In contrast with the universality of common language-neutral developmental processes across learners that a more psycholinguistic tradition was often seen to underline and which did not sufficiently account for individual differences across learners, a more sociallyoriented focus foregrounded the critical need to explain such differences. In so doing, we now have a substantial body of work that highlights the wide-ranging learner-internal factors that are at play in the learner's language experiences and developmental trajectory, of both an ascribed and acquired nature. They include age and gender, aptitude and cognitive capacity and orientation, and personality, along with motivation and attitudes, self-regulation, and agency, among others. Such factors make for a complex array of factors that highlight the individual nature of language learning where the learner's personal socio-biographical characteristics are observed to play a critical role.

The latter sociallyoriented approach has also highlighted the need to cast our lamp on how such learner-internal factors interact with the external in terms of other factors at play in the learning experience. For example, that learning experience is also influenced by other actors who serve as interlocutors in various ways, be they other learners, instructors, or members of a host community, who shape the learner's engagement with the language. On the latter count, activities are carried out through the language where the learner is called on to interact in the language in various ways, be it in the foreign language classroom or in the target language host community. The learner's characteristics and their experiences of such activities at a micro and macro level interact in various ways to mutually shape each other, such as learner motivation giving rise to motivated engagement with host interlocutors or negative host experiences negatively impacting learner attitudes

and agency. The complex interplay between such learner characteristics and external factors has foregrounded the individualised nature of the learning experience, making it often difficult to make generalisations across learners.

A final area of pivotal focus in relation to external factors has been the attention given to the role of input and interaction matters. Their role has a long-standing place in the SLA enterprise, such as through Michael Long's Interaction Hypothesis and the conceptualisation of input and interactional modifications, along with the vast sub-field that is instructed second language acquisition. In the latter regard, the field benefits from wide-ranging studies which track the relationship between different instructional input types, such as varying degrees of explicit and implicit treatment of grammar, and learner development on different grammatical and other linguistic features. Building on such work, since the 2000s, there has been increased acknowledgement of the need to better understand the role of input. Developments have seen increased focus on the relation between learner perception and noticing of input features, parsing and processing, and subsequent intake and use of those features in the learner's language system.

Beyond the different thematic lenses referred to, other innovative work has further complemented our understanding of L2 acquisition, with other approaches in evidence in eye-tracking studies, reaction time studies, neurolinguistic approaches, sociolinguistic approaches, biographical analyses, and social network analyses, among others. Taken together, the significant body of existing work highlights the diversity of approaches, issues and questions that prevail among learners with different L1–L2 combinations and in different learning contexts, from instructed learning to naturalistic learning, including immersion and study abroad, for different purposes and with different statuses, such as the case of migrants whose choice of L2 is often imposed, and at different levels in their learning trajectory, from beginner to near-native. Against this background, this special issue aims to capture recent work which broadly spans the three-fold thematic lens we have presented concerning linguistic development, language input, and individual factors with specific reference to French as an L2.

The focus on French complements a range of previous volumes which have brought together collections of studies, or in some cases, have constituted single manuscripts, such as Bartning (1997), Dewaele (2005), Guijarro-Fuentes et al. (2015), Labeau and Myles (2011), Lindqvist and Bardel (2012), and Myles and Towell (2004) in the former case, and Perdue (1995), Prévost (2009), and Véronique (2009) in the latter case. Others, such as Ayoun (2013), Leclercq and Howard (2015), Forsberg Lundell (2008), Howard and Ågren (2019), and Mougeon et al. (2010), have respectively drawn on French to explore specific features, such as tense-aspect-modality, collocational language, the sandhi phenomenon of liaison, and sociolinguistic competence. Indeed, a further edited volume by Dewaele and Mougeon (2002) has contributed to the latter area with a collection of studies on French. Such collections reflect the long-standing buoyant work of SLA researchers working on French, which has constituted a pivotal language within significant international research projects since the outset of the field. Examples include a European Science Project on language acquisition in crosslinguistic perspective among naturalistic migrant learners initiated in the 1980s, leading to multiple publications in areas such as temporality, spatiality, and utterance structure (see for example Perdue 1993). Another case in point is the Canadian body of studies on French language acquisition in an immersion education context in that country, allowing insight into the role of age and different manipulations of immersion configurations (see Harley 1992). Other work on Canadian French immersion learners has also considerably illuminated our understanding of the acquisition of sociolinguistic competence in that language, situated within the sociolinguistic wave of studies that emerged in the early 2000s (see Mougeon et al. 2010, who collated a range of specific studies of different sociolinguistic variables). A further case in point is the body of work stemming from the InterFra project among Swedish university learners, which has contributed to our understanding of the advanced learner variety (see Bartning 1997), and has further led to investigations at more advanced stages of acquisition with reference to near-native speakers

and native speaker competence (see Forsberg Lundell and Bartning 2015). Other efforts have been within the area of corpus linguistics, where the FLLOC corpora (French learner language oral corpora [see Myles 2005]) constitute a database which collates different corpora collected among learners of French in different contexts.

The non-exhaustive sample of studies referred to highlights the long-standing contribution of French in a field where there is a consistent need to provide studies that go beyond the ever-increasing focus on English, which is generally seen as holding global lingua franca status for many. Indeed, given the status of English, the need to test and apply theories and constructs to other languages is increasingly acknowledged, whereby the specificity of other languages may be such that those theories and constructs can be nuanced as a reflection of their applicability to languages other than English (LOTEs). As Oakes and Howard (2019) noted in the case of the dominance of studies of learners of English within research on the role of motivation in L2 acquisition, "[W]hile this might seem understandable given the latter's rise as the new global lingua franca, the fact that the field has undergone such a profound paradigm shift prompted by the learning of one very particular language is potentially problematic. Like basing sociolinguistic theory on the language usage solely of men, there is a real risk of generalising to all FLs [foreign languages] the very specific motivations for learning EFL [English as a foreign language]." For example, in the case of the study of L2 motivation as a factor in L2 acquisition, and specifically with regard to the predominant motivational model proposed by Zoltán Dörnyei in his L2 Motivational Self System (L2MSS), Boo et al. (2015) noted that during the period 2005–2014, over 70% of studies were conducted on learners of English, making for a bias in the data available. In that case, the reasons why learners choose other languages, and the makeup of motivational factors that drive their acquisition are crucial to our understanding of language acquisition when the target language is not English. While French is undoubtedly a global language, though to a lesser extent than perhaps English, Oakes and Howard (2019) highlighted the need for more nuanced interpretation of the L2MSS to learners of French in so far as their motivational makeup emerges as more complex than studies of English have previously suggested. In a global world where English dominates, the authors' findings highlight how the field can benefit from the contribution of studies of languages other than English.

Against this background, the studies presented here offer a timely update on a range of areas within contemporary research on the acquisition of French as an L2, advancing the hard-won insights that previous collections focusing on French have provided to the field. This special issue presents a series of 12 articles which, as we noted, broadly span the three-fold thematic lens of linguistic development, input and interaction matters, and the role of individual factors. Taken together, they offer innovative perspectives on different contemporary issues within each, drawing on investigations of learners at different stages of acquisition, in different learning contexts and with a wide range of L1 backgrounds. The focus on linguistic development explores different linguistic features spanning verbal and nominal morphology, such as tense-aspect-modality, spatial movement, agreement, and determination, as well as discourse cohesion and scope particles, syntax, and lexis. Moving beyond linguistic development, the consideration of input matters includes a focus on instructional input and learner outcomes, as well as naturalistic acquisition. Other articles explore individual factors, namely motivation in an instructed setting, as well as other individual factors and their impact on learner success in a naturalistic setting.

In the case of learner development on different linguistic features, Dalila Ayoun presents an article entitled 'A longitudinal study in the L2 acquisition of the French TAM system'. Within a generative paradigm, the author presents an extensive longitudinal study of university learner use of different verb morphological features for the marking of tense-aspect-modality on the verb in French. While the findings highlight the systematic morphological distinctions made in the learners' written language production, they also point to ongoing fragile zones on some features, reflecting conceptual entities that hold particular difficulty in advanced stages of French learner language.

The article by Pascale Leclercq, entitled 'Future or movement? The L2 acquisition of *aller* + V forms' continues the focus on tense-aspect-modality, but more specifically in relation to the expression of futurity and movement, reflecting the different spatial, temporal, and modal values of the specific form under investigation. The author considers such differential conceptual expression in the language production of learners at different proficiency levels, thereby tapping into the emergence and use of the form to express its polysemantic values. The quantitative findings offer a developmental profile of the form-function relations underpinning the specific form in the L2 learner's language system.

In a further study of verb morphology, Malin Ågren, Sonia Gerolimich, Cyrille Granget, Pascale Hadermann, Marie-Eve Michot, and Isabelle Stabarin explored the fragile zone of subject-verb agreement in their article entitled '"Les copains *dit au revoir": On subject-verb agreement in L2 French and cross-linguistic influence'. Their quantitative analysis of four different source-language learner groups allows rich consideration of the potential impact of crosslinguistic influence on the acquisition of this feature of French, whereby those source languages differ on the feature concerned to varying degrees from the target language. The comparative nature of the findings across two proficiency levels allows the authors to identify how such a factor contributes to the nuanced crosslinguistic influence pinpointed.

While the previous articles focus on the verb, a further article focuses on the noun phrase in an article entitled 'The emergence of determination in French L2 from the point of view of L1/L2 comparison' by Marzena Watorek, Pascale Trévisiol, and Rebekah Rast. As its title indicates, the study presented especially focuses on the determiner system in French, and is based on a longitudinal case-study analysis of spoken data elicited from two adult naturalistic learners. The learners come from two different L1 backgrounds, where the results point to both similarities and differences between the learners in the characteristics of their evolving expression of determination over the course of the study. The analysis also draws on previous work on child L1 acquisition, pointing to an important effect of the learners' source language in a way that clearly distinguishes them from child L1 development.

A remaining article explores discourse cohesion issues in relation to the expression of addition, focusing on the additive particle 'aussi' among German learners of French. Entitled 'Additive linking in L2 French discourse by German learners: syntactic embedding and intonation patterns', Sandra Benazzo, Fabian Santiago, and Christine Dimroth followed a developmental perspective across two proficiency levels and considered the characteristics of use of the particle in the learners' language production, from three perspectives, namely frequency of use, syntactic placement, and L1 prosodic effects. The cross-sectional findings allow a characterisation of the learners' use of the particle, which points to some learner-specific tendencies compared to native speaker discourse, as well as offering insight into putative crosslinguistic effects which are not supported by the findings presented.

While the focus of the previous articles has been placed on the grammatical dimensions of L2 acquisition, the area of lexical development is the focus of Christina Lindqvist's article on 'Vocabulary knowledge in L3 French: A study of Swedish learners' vocabulary depth'. In this case, the participants are less advanced third language (L3) learners in an instructed setting, where the author offers a cross-sectional comparison of aspects of their lexical knowledge in a written production task. The quantitative analyses highlight the scope of the concept of lexical knowledge with a focus on orthography, form-meaning, and word components. The findings, thus, document different facets of lexical development which are shown to be differentially more/less developed at different stages among the learner cohorts within their educational trajectory.

Amanda Edmonds and Aarnes Gudmestad continued the focus on lexical development, but in this case, within a study abroad context. Entitled 'Collocational development during a stay abroad', the article presents a quantitative longitudinal investigation of noun-adjective collocations in the written productions of British university learners before a year-long stay in France, at the end of the stay, and eight months post-study abroad. The

findings do not show evidence of an impact of the stay abroad on the frequency of the collocations. In contrast, a positive impact was found on collocational strength over time in the case of one of the measures used, but not for the other, suggesting an effect of lexical frequency. The findings, thus, provide a nuanced understanding of the role of study abroad as a context of learning on aspects of phraseological development.

Livia Dewaele and Jean-Marc Dewaele also focussed on learners in a study abroad context. Entitled 'Actual and self-perceived linguistic proficiency gains in French during Study Abroad', their article offers a mixed-methods study of proficiency development, measured through a lexical test, among British university learners of French. With three data collection times, the data capture the positive developmental gains to be made during study abroad, while also highlighting the inter-individual variation which overrides such development in a study abroad context. The authors problematised such variation in the qualitative analysis, highlighting the complexity of factors underlying the learners' experience abroad, especially the role of initial proficiency level at the outset of such a sojourn. The findings showcase the difficulty to generalise study abroad findings across learners for whom study abroad is a highly individual experience, but, notwithstanding, point to the gains to be made oftentimes irrespective of how the experience abroad evolves.

While the previous articles by Edmonds and Gudmestad, on the one hand, and Dewaele and Dewaele, on the other, focussed on study abroad as a learning context, other articles extend to an otherwise different consideration of input issues, on the one hand, and instructional practice issues, on the other. In the first case, Anita Thomas presented an article entitled 'Input issues in the development of L2 French morphosyntax'. She offers an overview of a selection of studies which treat the relation between input characteristics such as saliency, frequency, and regularity, on the one hand, and learner perception of and development on different morphosyntactic forms, on the other hand. The reflections presented highlight the critical role of input issues in need of greater consideration within the SLA field, and underscore the complex challenge that the learner faces in noticing such features in order to advance in their acquisition process.

A further article more specifically considers instructed learning in the foreign language classroom. Katherine Rehner, Anne Popovich, and Ivan Lasan wrote 'How the CEFR is impacting French-as-a-second-language in Ontario, Canada: Teachers' self-reported instructional practices and students' proficiency exam results', looking at the areas of foci which are in some way prioritised within the classroom instruction and the learners' developmental outcomes. The former areas are elicited in self-report data among a cohort of teacher-participants, while the latter areas are based on results from an international proficiency test of different language skills. The quantitative findings illuminate the learners' proficiency outcomes and the instructional input practices of their instructors, offering insight into possible instructional impact on linguistic development that remains to be explored.

A further article continues the consideration of instructional practice issues, with an article by Céline Rocher Hahlin and Jonas Granfeldt on 'Strengthening French L3 motivation: the differential impact of vision-enhancing activities'. In this case, the focus extends to individual factors in L2 acquisition, whereby the article concentrates specifically on a well-investigated factor, namely learner motivation within Dörnyei's L2MSS. Moreover, the study is situated within L3 LOTE learning, reflecting the specific need to extend the scope of inquiry beyond English. In particular, the authors focussed on the longitudinal impact of instructional practice on development of the motivational construct of the ideal L3 self within Dörnyei's model, along with intended learning effort, among Swedish L3 learners. While the quantitative findings point to a limited overall impact, a more positive impact is found to pertain to intended effort. The findings also highlight a gender effect underpinning learner development of both constructs.

A final article by Fanny Forsberg Lundell and Klara Arvidsson is entitled 'Understanding high performance in late L2 acquisition—what's the secret? A contrasting case study in L2 French'. Continuing the focus on individual factors, the authors offer a qualitative

study of a wide range of factors that they hypothesise influence success in L2 learning among long-term Swedish residents in France. They situate their study in relation to the near-native vs. passing-as-a-native quality of linguistic attainment among their participants with a view to exploring what factors might distinguish the former from the latter. The results identify both similarities and differences which offer insight into the complexity of factors underpinning ultimate success in very late, high-proficiency stages of acquisition in a naturalistic context.

References

Ayoun, Dalila. 2013. *The Second Language Acquisition of French Tense, Aspect, Mood and Modality*. Amsterdam and Philadelphia: John Benjamins.

Bartning, Inge. 1997. Les Apprenants Avancés. Special issue, Acquisition et Interaction en Langue Etrangère, no. 9.

Boo, Zann, Zoltán Dörnyei, and Stephen Ryan. 2015. L2 motivation research 2005–2014: Understanding a publication surge and a changing landscape. *System* 55: 147–57. [CrossRef]

Dewaele, Jean-Marc, and Raymond Mougeon. 2002. L'acquisition de la variation par des apprenants du français langue étrangère. Special issue, Acquisition et Interaction en Langue Etrangère, no. 17.

Dewaele, Jean-Marc. 2005. *Focus on French as a Foreign Language*. Clevedon and Toronto: Multilingual Matters.

Forsberg Lundell, Fanny, and Inge Bartning. 2015. *Cultural Migrants and Optimal Language Acquisition*. Bristol and Toronto: Multilingual Matters.

Forsberg Lundell, Fanny. 2008. *Le Langage Préfabriqué—Formes, Fonctions et Fréquences en Français Parlé L2 et L1*. Bern: Peter Lang.

Guijarro-Fuentes, Pedro, Katrin Schmitz, and Natascha Müller. 2015. *The Acquisition of French in Multilingual Settings*. Bristol and Toronto: Multilingual Matters.

Harley, Birgit. 1992. Patterns of second language development in French immersion. *Journal of French Language Studies* 2: 159–83. [CrossRef]

Howard, Martin, and Malin Ågren. 2019. The Acquisition of Liaison in French as a Second Language. Special issue. *Language, Interaction and Acquisition* 10: 1–10. [CrossRef]

Labeau, Emmanuelle, and Florence Myles. 2011. *The Advanced Learner Variety. The Case of French*. Frankfurt am Main: Peter Lang.

Leclercq, Pascale, and Martin Howard. 2015. The Morphological Expression of Temporality on the Verb in French as a Second Language/L'Expression Morphologique de la Temporalité sur le Verbe en Français Langue Seconde. Special issue. *Language, Interaction and Acquisition* 6: 1–14. [CrossRef]

Lindqvist, Christina, and Camilla Bardel. 2012. *The Acquisition of French as a Second Language*. Amsterdam and Philadelphia: John Benjamins.

Mougeon, Raymond, Katherine Rehner, and Terry Nadasdi. 2010. *The Sociolinguistic Competence of Immersion Students*. Bristol and Toronto: Multilingual Matters.

Myles, Florence, and Richard Towell. 2004. The Acquisition of French as a Second Language. Special issue. *Journal of French Language Studies* 14: 209. [CrossRef]

Myles, Florence. 2005. Interlanguage corpora. *Second Language Research* 21: 373–91. [CrossRef]

Oakes, Leigh, and Martin Howard. 2019. Learning French as a foreign language motivation in a globalised world: An empirical critique of the L2 Motivational Self System. *International Journal of Bilingual Education and Bilingualism*. in press. [CrossRef]

Perdue, Clive. 1993. *Adult Language Acquisition: Cross-Linguistic Perspectives. Vol. I: Field Methods, Vol. II: The Results*. Cambridge: Cambridge University Press.

Perdue, Clive. 1995. *L'Acquisition du Français et de l'Anglais par des Adultes*. Paris: CNRS Editions.

Prévost, Philippe. 2009. *The Acquisition of French: The Development of Inflectional Morphology and Syntax in L1 Acquisition, Bilingualism, and L2 Acquisition*. Amsterdam and Philadelphia: John Benjamins.

Selinker, Larry. 1972. Interlanguage. *International Review of Applied Linguistics* 10: 209–30. [CrossRef]
Véronique, Daniel. 2009. *L'acquisition de la Grammaire du Français Langue Etrangère*. Paris: Didier.

A Longitudinal Study in the L2 Acquisition of the French TAM System

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Abstract: Empirical studies investigating the second language (L2) acquisition of tense, aspect, mood/modality (TAM) systems offer an enlightening window into L2 learners' linguistic competence because they involve all areas of a language, making them ideal testing grounds for the Interface hypothesis and ultimately whether adult learners may achieve a native-like TAM system. This longitudinal study used a pre-test, repeated exposure, delayed post-test design guided by a main research question—does the L2 learners' interlanguage display contrasts and systematicity? Sixteen L2 French learners—L1 English (n = 9), HL French (n = 4), and HL Spanish (n = 3) speakers enrolled in a fourth-year college Film and Fiction class read five novels that were extensively discussed in class and used as essay topics, thus providing controlled, repeated exposure to oral and written input over a semester. Qualitative and quantitative findings reveal a highly accurate production of several forms, but with an over-reliance on the indicative present. The learners' TAM system appears to be contrasted and varied, but unbalanced. Findings regarding the Interface hypothesis are mixed.

Keywords: tense; aspect; mood; modality; L2 French; Interface hypothesis; longitudinal study

1. Introduction

Empirical studies investigating the second language (L2) acquisition of tense, aspect, mood/modality (TAM) systems offer an enlightening window into L2 learners' linguistic competence because they involve all areas of a language, making them ideal testing grounds for the Interface hypothesis and ultimately to determine whether adult learners may achieve a native-like TAM system (Ayoun and Rothman 2013; Reinhart 2006; Salaberry and Ayoun 2005). Initially proposed to account for residual variability at advanced stages of L2 acquisition (Sorace 2000, 2003, 2005), the Interface hypothesis has been extended to bilingual L1 acquisition, the early stages of L1 attrition, language breakdown, and diachronic change (Sorace 2011; Sorace and Filiaci 2006). The Interface hypothesis adopts a modularity view that distinguishes between internal interfaces (i.e., between two linguistic modules such as syntax and morphology) and external interfaces (i.e., between a linguistic module and cognition). External interfaces are defined as overlapping points in the mental representation of grammar with the interaction of properties between at least one linguistic module and an aspect of cognition. Properties at internal interfaces are acquirable albeit with developmental delay, while properties at external interfaces may never be fully acquired leading to residual L1 effects, optionality, and indeterminacy in L2 grammars.

TAM properties stand at both internal (i.e., syntax, morphology, semantics) and external interfaces (e.g., pragmatics and cognition) allowing us to test the hypothesis that properties situated at external interfaces are more complex and thus more difficult to acquire than narrow syntactic properties e.g., (Sorace and Serratrice 2009). Grammar-internal properties include inflectional morphology for tense-marking, while grammar-external properties concern mood selection, which requires L2 learners to process pragmatic and discourse information (Collentine 2003). Hence, according to the Interface hypothesis, L2 French learners should eventually successfully acquire tense-marking

inflectional morphology that depends on syntax, semantics, and the lexicon in addition to morphology (i.e., internal interfaces), but exhibit persistent optionality and/or indeterminacy in mood selection such as the indicative vs. the subjunctive, the conditional, or the imperative (i.e., external interfaces). Internal and external interfaces are thus expected to yield different outcomes e.g., (Sorace and Serratrice 2009; Tsimpli and Sorace 2006), but in order to test the Interface hypothesis, we need to examine an entire TAM system.

However, most TAM L2 studies tend to be narrowly focused on a few specific properties such as the aspectual distinction between the perfective and the imperfective in the past, and are rarely longitudinal (see e.g., Ayoun 2013 for a review). We are hence lacking a more complete picture of the TAM system L2 learners may develop as they progress toward the target language and we do not know whether they experience more difficulties with internal or external interfaces. Another important caveat is a lack of control over the input to which L2 learners are exposed prior to completing elicitation tasks as participants in empirical studies in spite of the well-known importance of the input e.g., (Gass 2013; Piske and Young-Scholten 2009). This prevents us from establishing a potential causality between the type of input and participants' performance.

The present study addresses these two caveats by analyzing six essays written by instructed learners who were enrolled in a French Film and Fiction class over the course of an academic semester. They were either English native speakers or heritage speakers of Spanish or French, which is why we will now give a brief overview of the TAM system of these three languages.

2. The French, English and Spanish TAM Systems

The concept of time is expressed by the two distinct grammatical categories of tense that "relates the time of the situation referred to some other time, usually to the moment of speaking" (Comrie 1976, pp. 1–2) and aspect defined as the "different ways of viewing the internal temporal constituency of a situation" (Comrie 1976, p. 3). Thus, tense situates events along a timeline in reference to others (i.e., past, present, future), whereas aspect reflects the speaker's viewpoint (i.e., perspective) on a given situation (i.e., perfective for completed, imperfective for incomplete, progressive for in progress). Aspect is further divided into lexical aspect and grammatical aspect. The latter concerns the internal constituency of a situation and is expressed with inflectional morphology or morphological forms. For instance, the aspectual distinction between perfective and imperfective in French is expressed through *passé composé/passé simple* and *imparfait*, respectively e.g., (Smith 1991, 1997). Lexical aspect refers to the inherent semantic properties of verbs or predicates as states, activities, achievements, and accomplishments (Mourelatos 1978; Vendler 1967).

French and Spanish are Romance languages that exhibit a hybrid TAM system that relies mostly on moods with an important indicative-subjunctive mood alternation, while expressing modality with auxiliary and lexical verbs[1]. Both languages use the present, past, and future temporalities, and the main aspectual distinction in the past is between the perfective and the imperfective although Spanish also grammaticalizes the progressive that is only lexicalized in French. In contrast, English is primarily a modal language that relies on modal auxiliaries as in (1a, b, c).

1.　　a.　　Je ne peux pas y aller avec toi, je dois rendre ce rapport demain. *No puedo ir contigo, tengo que entregar este informe mañana.* 'I cannot go with you, I have to turn in this report tomorrow'.

　　　b.　　*Je voudrais bien y aller avec toi, mais ce n'est pas possible. Me gustaría ir contigo, pero no puedo.* 'I would like to go with you, but I can't'.

　　　c.　　*Tu aurais dû me le dire, je t'aurais aidé. Me lo tendrías que haber dicho, te hubiera ayudado.* 'You should have told me, I would have helped you'.

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[1]　As a marked mood necessary to express various modalities (i.e., the speaker's attitude towards the utterance), the subjunctive is considered as a benchmark in the L2 acquisition of French.

The indicative-subjunctive alternation characterizes the French and Spanish TAM systems, see e.g., (Collentine 2010 for Spanish and Ayoun 2013 for French), while the English subjunctive has dwindled to the point that it is no longer considered a mood e.g., (James 1986).

2. a. Elle a échoué à ses examens parce qu'elle était malade. *Suspendió sus exámenes porque estaba enferma.* 'She failed her exams because she was sick'.

    b. *Je suis triste qu'elle soit malade. Me apena que esté enferma.* 'I'm sad that she is sick'.

    c. *Il est dommage vous n'ayez pas pu venir avec nous. Es una lástima que no pudiera venir con nosotros.* 'It's a pity that you couldn't come with us'.

The examples in (2a) are in the indicative because they express a certainty, while the sentences in (2b, c) are in the subjunctive because they express subjectivity (i.e., the way the locutor feels about the event). Generally, the indicative expresses a commitment to the truth-value of a statement, contrary to the subjunctive (Palmer 2001), or realis vs. irrealis. The French subjunctive generally appears in the embedded clause following a triggering element in the main clause such as a verb or lexical expression expressing doubt, (im)probability, (im)possibility, volition, judgment, commands, regrets, or desire. Only certain verbs of opinion trigger the subjunctive particularly in the negative or interrogative, but not always as exemplified in (3): The subjective is required in (3a), but both moods are possible in (3b, c) with the indicative allowing the speaker to express a much greater certainty than with the subjunctive.

3. a. *Elle pense que c'est-*IndPres *possible/*ce soit-*SubjPres *possible.* 'She thinks it's possible'

    b. *Elle ne pense pas que c'est-*IndPres *vrai/ce soit-*SubjPres *vrai.* 'She does not think it's true'

    c. *Pense-t-elle que c'est intéressant-*IndPres */ce soit-*SubjPres *intéressant?* 'Does she think it's interesting?'

An indefinite antecedent may be used with the subjunctive, indicative, or conditional as shown in (4a, b). Again, the indicative allows the speaker to express the belief that such a translator or colleagues do exist, whereas the subjunctive and conditional express irrealis regarding the existence of these people.

4. a. *Paul cherche un traducteur qui sait-*IndPres*/sache-*SubjPres */saurait-*CondPres *l'arabe.* 'Paul is looking for a translator who knows Arabic'.

    b. *Lisa aimerait travailler avec des collègues qui la respectent-*IndPres*- *SubjPres */respecteraient-*CondPres. 'Lisa would like to work with colleagues who respect her'.

We note that for verbs ending in *-er,* the indicative and subjunctive forms are indistinguishable, creating some ambiguity. Both French and Spanish exhibit polarity subjunctive, but not in the same contexts. In Spanish, it is licensed with epistemic, perception, and communication verbs whereas it is only licensed with negated epistemics in French (Borgovono and Prévost 2003). Both languages require the subjunctive after certain conjunctions (e.g., *bien que* 'although', *pour que* 'so that'; *para que* 'so that', *ojalá* 'hopefully'). To sum up, in both French and Spanish, the subjunctive may be obligatory (the majority of cases particularly for French) or optional.

Examples of subjunctive still used in Standard English are akin to frozen expressions (e.g., Long live the King! May he rest in peace), use modal auxiliaries (e.g., I'm surprised that Anne should think that) (Palmer 2003, p. 4), or the verb remains uninflected as in (5–8) (Celce-Murcia and Diane 1999, pp. 632–47):

5. a. They insist that all the students sign up for a counselor.

    b. They insist that this student sign up for a counselor

6. a. The customer is demanding that the stores return his money.

    b. The customer demanded that the store return his money

7. a. We insist that he be the one to make the call.
    b. The customer demanded that his money be returned.
8. a. We insist that he not make the telephone call.
    b. *We insist that he do/does make the telephone call.

Thus, the subjunctive mood does survive in Standard English in specific contexts, but it is a more marked form than it is in French or Spanish.

French and Spanish differ in the use of the progressive with verbal morphology in the latter as in English, but not the former as in (9).

9. a. Estaba caminado sola, no sé por qué. *Elle marchait seule, je ne sais pas pourquoi.* 'She was walking by herself, I don't know why'.
    b. *Estoy pensando en este nuevo proyecto. Je suis en train de réfléchir à ce nouveau projet.* 'I'm thinking about this new project'.
    c. *Estaba cocinando la cena. Il préparait/était en train de préparer le dîner.* 'He was cooking dinner'.

Thus, in the past, the progressive may be expressed with the *imparfait* or the indicative present in French in addition to the lexical periphrasis *être en train de* 'to be in the middle of doing something', whereas the Spanish progressive may also be combined with perfective and imperfective forms as well as future and conditional forms (King and Suñer 1980), while French perfective forms disallow the progressive.

The main aspectual distinction in the past is between the perfective and the imperfective in both French and Spanish, but it is between the perfective and the progressive in English. *Imparfait* in French can correspond to an imperfective or a progressive in Spanish or in English; the latter may also render an imperfective as a perfective or a modal auxiliary as in (10).

10. Quand je vivais à Nice, je jouais au tennis en été. *Cuando vivía en Nice, jugaba al tenis durante el verano.* 'When I lived in Nice, I would play tennis in the summer'.

English and Spanish display a form composed of an auxiliary and past participle–present perfect for the former and *pretérito perfecto compuesto* for the latter—to express either an indefinite past as in (11a) or an event that started in the past and is still relevant in the present as in (11b). In contrast, French uses *passé composé* in (11a), while French and Spanish use an indicative present in (11c).

11. a. Lo han vendido. *Ils l'ont vendu.* 'They have sold it'.
     b. *Han empezado a construir la casa nueva. Ils ont commencé à construire la nouvelle maison.* 'They have started to build the new house'.
     c. *Hace much tiempo que lo conozco. Je le connais depuis longtemps.* 'I have known him for a long time'.

French does distinguish between a definite and an indefinite past, but by using *passé composé* for the former (12a) and the indicative present for the latter that is still relevant in the present (12b).

12. a. Sophie est sortie-PC avec ses amis hier soir. Sophie went out with her friends last night.
     b. *Sophie sort-*INDPRES *avec ses amis de temps en temps.* Sophie has been going out with her friends once in a while.

French also uses *passé simple* as a perfective past form like *passé composé,* but it is typically limited to written contexts, more elevated registers, or to refer to the historic past in oral contexts (Labeau 2007, 2009).

This very brief overview shows that there is no strict correspondence between tense and temporality and that a rich morphology is used to express not only temporal, but also modal and aspectual distinctions. French and Spanish exhibit TAM systems with some similarities, but also with some notable differences.

3. Literature Review of French TAM Studies

Among the few studies that have tackled more than a single aspect of the TAM system that L2 learners develop toward their L2 acquisition of French are (Herschensohn and Arteaga 2009), (Howard 2008, 2012, 2015) and Ayoun (2013, 2015). Myles (2005) is another longitudinal study, but with a focus on the emergence of syntactic structure and verbal morphology by 12–13-year-old Anglophone children (n = 14). The analysis of the syntactic structure of their utterances from oral narratives showed that the children initially produce lexical phrases without verbs, then untensed verbs (e.g., *ma mère regarder le magasin*; Myles 2005, p.100), and finally tensed verbs after a period during which finite and nonfinite verbs coexist before the children use verbal morphology appropriately. Other studies with older and more advanced L2 learners show that they eventually show a good mastery of the rich and complex French verbal morphology. Thus, in Herschensohn and Arteaga (2009), three advanced Anglophone learners of L2 French who performed oral and written production tasks as well as grammaticality judgment tasks over a seven- to nine-month period showed they could use a variety of morphological forms (i.e., *passé composé*, *imparfait*, present conditional) with nearly perfect accuracy. Herschensohn and Arteaga argued that their participants' performance indicates that adult learners can eventually acquire the target language contra impairment hypotheses such as the Failed Functional Features Hypothesis that claim that features that are not instantiated in the L1 cannot be acquired in the L2, resulting in incomplete acquisition and permanent deficits e.g., (Hawkins and Chan 1997; Hawkins and Liszka 2003).

Howard (2012) investigated the acquisition of the future, conditional, and subjunctive in the L2 French acquisition of Irish college students (n = 18, aged 20–22) by conducting individual sociolinguistic interviews, thus obtaining natural, spontaneous speech, but few tokens: 116 tokens for futurity, 100 contexts requiring the subjunctive, 215 contexts requiring the modal, hypothetical use conditional[2]. Participants in all three groups had been learning French for eight to nine years and were majoring in French in college: Group 1 and group 3 had completed two and three years of French instruction, respectively, while group 2 had also spent one year studying abroad. The indicative present was used the most often in future contexts (32%, 27%, and 61% for group 1, 2, and 3, respectively), the subjunctive was rarely clearly marked (4.5%, 16%, 13%), while the conditional was produced the most often (55%, 66%, 74%), but it was provided by the interviewer's hypothetical 'if' questions. The same data were used in (Howard 2005) for past events taking place prior to another one (e.g., *quand Sophie est arrivée, la soirée était déjà finie* 'when Sophie arrived, the party had already ended'). Such contexts require *plus-que-parfait*, but Howard also considered other forms expressing a temporal contrast. Few verbal tokens were used with *plus-que-parfait* (9%, 35%, and 31% for groups 1, 2, and 3, respectively).

Ayoun (2005) analyzed personal narratives written by instructed English learners (aged 20 to 24) who were at three different proficiency levels as determined by a pre-test (n = 14 at intermediate-mid, n = 12 at intermediate-high, n = 11 at advanced); they produced appropriately inflected morphological forms in well-formed sentences (with appropriate negation and adverb placement), indicating they had acquired the functional categories associated with the strong features of verbs triggering their syntactic movement. The various forms they accurately produced also showed different semantic contrasts such as the aspectual distinction between *passé composé* and *imparfait*. However, their performance on the cloze test was noticeably worse with significant differences between groups.

In a similar study, Ayoun (2013) reports the results of written production, sentence completion tasks, and cloze tests. The results of a pre-test yielded three groups of participants (n = 14 at beginning, n = 15 at intermediate, n = 13 at advanced averaging 22.5, 22.4, and 24.46 in age, respectively) Participants' production was accurate on the first task, but limited to a few morphological forms such as indicative present or *passé composé*. Clear proficiency and lexical class differences emerged on the cloze tests

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2 Howard (2009) used the same 215 tokens for the conditional to explore his participants' production in more detail. The percentages are based on the total number of verbal tokens produced.

and sentence completion tasks. Participants struggled with modals and the indicative/subjunctive alternation (e.g., even the advanced group's performance depended on the type of semantic/syntactic triggers for the subjunctive).

Other studies also found that L2 learners were highly accurate for the indicative present, but not the subjunctive e.g., (Herschensohn and Arteaga 2009; Howard 2008, 2012; Lealess 2005; McManus and Mitchell 2015). For instance, the longitudinal case study of Billy—an Anglophone learner who started acquiring French in an instructed setting at 14 in Ayoun (2015)—reveals an interlanguage grammar with contrasts and systematicity between different temporalities and with the indicative-subjunctive alternation, but again, accuracy percentages were noticeably better on guided production tasks than on some elicitation tasks such as sentence completion tasks.

In Ayoun (2013), the performance of Anglophone L2 learners improved with proficiency on a sentence completion task (19.89%, 50.32%, and 61.91% for the beginning, intermediate, and advanced groups, respectively) for the subjunctive present. Moreover, there was a significant effect for the semantic/syntactic trigger with the best performance on order/interdiction semantic triggers.

It is interesting to note that McManus and Mitchell (2015) report similar findings with Anglophone learners who had spent nine months abroad and who completed two production tasks (a written argumentative task and an oral, guided interview) and a grammaticality judgment task.

To the best of our knowledge, there are no longitudinal TAM studies of Hispanophone learners of L2 French, and only a few cross-sectional studies such as (Izquierdo and Collins 2008) that compared Hispanophone (n = 17) and Anglophone (n = 15) instructed learners in their acquisition of the perfective/imperfective aspectual distinction with a 68 item cloze test and a retrospective interview. They found that Anglophone learners preferred the perfective and relied on verb semantics, while Hispanophone learners benefited from L1-L2 similarities. (Izquierdo 2009) also administered a cloze test to Hispanophone learners (n = 44) exemplifying prototypical and nonprototypical uses of the perfective and imperfective. All proficiency levels marked a preference for prototypical uses and a persistent challenge for nonprototypical uses. In a study designed to investigate multimedia instruction effects on the acquisition of (non)prototypical past forms by Hispanophone learners, (Izquierdo 2014) found an improvement only for learners at the lowest proficiency levels.[3]

To sum up, longitudinal studies of L2 French learners report an improvement in performance with proficiency, indicating that they do eventually acquire target-like verbal morphology, but with strong task effects (hence the importance of administering different elicitation tasks), and with learnability difficulties to which we now turn.

4. Learnability Issues and Research Questions

The fact that L2 learners experience difficulties in mapping TAM abstract features to morphological forms is formally explained by hypotheses such the Missing Inflection hypothesis (Haznedar and Schwartz 1997), the Missing Surface Inflection hypothesis (Prévost and White 2000), the Prosodic Transfer hypothesis (Goad et al. 2003), or the Feature Assembly Hypothesis (Lardiere 2008, 2009) in addition to the Interface hypothesis.

According to the first two hypotheses, the fact that L2 learners fail to produce certain morphological forms reveals difficulties with the realization of surface morphology itself, rather than a syntactic impairment related to the strength or projection of functional categories. This is referred to as a mapping problem in that L2 learners may not always be able to reassemble L1 features into the appropriate L2 configurations (Lardiere 2000), but it does not indicate a permanent deficit. For instance, root infinitives are typical of the "basic variety" in interlanguage grammars (Klein and Perdue 1997)

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[3] Izquierdo and Kihlstedt (2019) focuses even more narrowly on *imparfait* in written narratives by Hispanophone learners (n = 94).

but are replaced with the appropriate inflectional morphology in obligatory contexts over time e.g., (Herschensohn 2001; Prévost and White 2000; Prévost 2003).

The Prosodic Transfer Hypothesis emphasizes the role that prosodic structures play in achieving a target-like representation of functional morphology and are derived from properties of the surface phonetic string and constrained by Universal Grammar.

All these hypotheses are relevant to the L2 acquisition of TAM systems, but we will focus on the Interface hypothesis because it allows us to factor in the complexity of TAM properties spanning across internal and external interfaces. The Interface hypothesis predicts that L2 French learners should eventually acquire tense-marking inflectional morphology that depends on syntax, semantics, and the lexicon in addition to morphology (i.e., internal interfaces), but exhibit persistent optionality and/or indeterminacy in mood selection such as the indicative vs. the subjunctive, the conditional or the imperative (i.e., external interfaces). The properties at the external interfaces are hypothesized to be more difficult to acquire because integrating information from various sources is cognitively costly e.g., (Ahern et al. 2016).

In concrete terms, to acquire a target-like TAM system, learners need to acquire: (a) The strong features of functional categories such as Agreement Phrase and Tense Phrase; (b) the perfective-imperfective aspectual distinction in the past (*passé composé* vs. *imparfait*); (c) the values of the *imparfait* (durative, imperfective, iterative); (d) the idiom *être en train de* for the progressive, which is lexicalized but not grammaticalized; (e) the indicative-subjunctive present alternation; (f) the fact that modal verbs (e.g., *devoir, falloir*) behave like lexical verbs with different modalities being expressed by moods; and (g) past, present, and future temporalities.

The main hypothesis to be tested is whether our L2 learners will display a systematically well-contrasted TAM system defined as the appropriate use of all three temporalities, aspectual distinctions, and the forms subsumed under the indicative, conditional, and subjunctive moods. Contrasted means that learners are able to differentiate between the present and the past temporalities, for instance, and systematic means that they are able to do so consistently, in obligatory contexts, and in a target-like manner.

Regarding the Interface hypothesis, the main research question will ask whether external interfaces (i.e., mood selection among the indicative, subjunctive, conditional, and imperative) are more difficult to acquire than internal interfaces (i.e., inflectional morphology across all three temporalities). Appropriate mood selection is considered to be part of the external interfaces because it involves pragmatics and discourse, although it could be argued that it also concerns internal interfaces. The indicative (expressing realis) is the most common, unmarked choice whereas the subjunctive and the conditional (expressing irrealis) are marked choices that must be triggered by at least one lexical or syntactic element (i.e., grammar-internal) or by the intention of the speaker to express indefiniteness/uncertainty (i.e., grammar-external) or the context be it uncertain or hypothetical (i.e., grammar-external).

We are also making the following predictions: (a) There will be a morphological form effect with a better performance and overreliance on the indicative present and *passé composé*; (b) participants will be highly accurate as essays allow learners to avoid forms they may not have fully acquired yet; (c) French and Spanish heritage speakers will benefit from a facilitative effect.

5. Materials and Methods

5.1. Participants

Participants were college students enrolled in a 4th-year French course at a major North American university. They were instructed learners of French as a foreign language and were compensated with extra-credit for their participation. They were told that the study was about learning French as a foreign language. All agreed to participate. Table 1 displays their background information.

Table 1. Participants' background information.

	L1 English n = 9	Heritage French n = 4	Heritage Spanish n = 3
gender	F (n = 7), M (n = 2)	F (n = 4)	F (n = 2), M (n = 1)
age	21 (20–22)	22 (20–24)	21.7 (20–23)
college status		undergraduate	
college major	French (n = 5)	French (n = 2)	French (n = 3)
age of onset	15–17	0	15–17
L2 setting	instructed	home/instructed	instructed
Francophone stay	no (n = 6) yes (n = 4) 6 weeks to a year	yes (n = 4) 4–12 years	no (n = 3)
motivation		very to extremely motivated	

To ensure that the same participants would be followed for an entire semester so that they would be exposed to the same input and complete the same tasks, all the students enrolled in the same class had to be selected. This led to a heterogenous, but interesting, group of participants classified by their linguistic backgrounds as follows: Monolingual English native speakers (n = 9) and heritage speakers of either French (n = 4) or Spanish (n = 3).

The Spanish heritage speakers, who were bilingual in American English and Mexican Spanish, were born and raised in or had immigrated to the United States before the age of 5 and had strong personal ties to both Mexico and the United States, but were only schooled in English in the United States. The French heritage speakers were born and raised in France but had moved to the United States before the age of 5, so they had never been schooled in France, nor had they received formal instruction in French until they started taking French college classes. At least one of their parents was a French native speaker, and they also indicated having strong personal ties to both France and the United States. All the participants were undergraduate students, most majoring in French (n = 10). None of the Spanish heritage speakers had spent time in a Francophone country, while 6 L1 English learners had, with stays ranging from 6 weeks to 1 year. They all indicated being very to extremely motivated to continue learning French. The participants were either only enrolled in this class (n = 7), in a second 4th-year class (n = 6), or in two other 4th-year classes (n = 3). They were all content classes taught in French.

5.2. Classroom Setting and Materials

The participants were enrolled in a 4th-year Film and Fiction class that met three times a week for 50 min each time. The instructor chose five novels that had been made into movies as course materials. The class was organized as follows: Participants would first watch the movie at home to familiarize themselves with the storyline and the characters. They would then read 20 to 30 pages at a time at home to come to class prepared to discuss the story and the characters and share their opinions and reactions during instructor-led interactions. These interactions focused on the novels. Recasts[4] were used to implicitly indicate when a form was not target-like without interrupting the flow of the interaction, but no explicit grammatical clarification was given unless the participants requested it.

The participants were thus exposed to controlled, repeated input during their readings and class discussions of five novels during an entire semester. Three had very similar themes and storylines that provided that repeated, controlled input: *Un secret, Elle s'appelait Sarah, Les enfants de la liberté*–take

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[4] Recasts are defined as a corrective reformulation of an erroneous utterance during a natural interaction, they are thus a form of implicit negative feedback e.g., (Spada 1997).

place during the second world war and narrate the characters' personal stories during the Holocaust and the French Résistance movement. *Oscar et la dame en rose* and *L'élégance du hérisson*[5]–revolve around smart, endearing children who befriend an adult who understands why they are not as carefree as other children and plays a supportive role. Oscar is a 10-year-old boy who is dying of an uncurable cancer, while Paloma is a precocious 12-year-old girl who has decided to commit suicide on her 13th birthday and set her home on fire because she feels adults and their world are hopeless.

5.3. Procedure and Tasks

The data were collected for a larger longitudinal study in the L2 acquisition of French morpho-syntax. Participants completed three written, computerized tasks per session during four sessions that took place at the beginning, middle, end of the semester and one month later for the delayed post-test. They first filled out a background information questionnaire and completed a grammaticality judgment task targeting various morpho-syntactic properties as an independent measure of proficiency. Participants also completed cloze tests whose results are reported elsewhere (Ayoun 2013). The present study reports on the quantitative and qualitative analyses of the 6 essays that the participants wrote at home every three weeks throughout the 16-week semester. The participants were given the same essay topics with instructions for length (see Appendix A) to ensure that their performance would be comparable while keeping in mind that it is impossible to guarantee that all would produce narratives of the same length. There were no time constraints as it was impossible to control, but all essays had a due date.

The essays were coded for appropriate uses of tense and mode given the obligatory contexts. For instance, if a participant started to write *il faut que mes parents* . . . 'my parents have to . . . ', the subjunctive was required and thus expected; or a sentence starting with *si j'avais eu le temps* . . . 'if I had had time . . . ' requires the use of past conditional in the main clause such as *j'aurais pu finir tout cela* 'I could have finished all that'. If a participant used present conditional or *imparfait,* it was classified as an error. If a spelling error made it difficult to determine the tense and/or mode used, it was not taken into account.

6. Results

The results of an ANOVA run on the GJT used as a pre-test revealed that the Heritage language (HL) French group's performance (84.9% overall accuracy mean) was better and statistically significant from the performance of the HL Spanish group (69.8%) and the L1 English group (62.8%) (sum of squares = 0.113, df = 2, mean squares = 0.057, $F = 4.708$, $p = 0.029$).

The topics of the essays related to one of the novels/films that were discussed in class (see Appendix A) were sufficiently varied to provide ample opportunities to use different forms anchored in the present, past, and future temporalities. The results appear in Tables 2–4.

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[5] *Un secret*, novel by Philippe Grimbert (2007) and movie by Claude Miller (2007); *Elle s'appelait Sarah,* novel by Tatiana de Rosnay (2010) and movie by Gilles Paquet-Brenner (2010); *Les enfants de la liberté,* novel by Marc Lévy (2008), no film adaptation; *Oscar et la dame en rose*, novel and film by Eric Emmanuel Schmitt (2009); *L'élégance du hérisson*, novel by Muriel Barbéry (2009) and film by Mona Achache (2009).

Table 2. L1 English group's essays by verbal tokens and forms.

L1 English (n = 9)	Essay 1	Essay 2	Essay 3	Essay 4	Essay 5	Essay 6	Total Average
words	8681	8704	8346	8859	9326	16,126	60,042
verbal tokens	**1289**	**1274**	**1277**	**1126**	**1193**	**2800**	**8959**
IndPres	815	691	827	527	626	1161	4647
IndPres %	**63.22%**	**54.24%**	**64.76%**	**46.8%**	**52.47%**	**41.46**	**52%**
Errors	36–4.41%	9–1.30%	9–1.08%	16–3.03%	8–1.27%	44–3.78%	**122–2.65%**
PC	110	197	114	223	104	673	1421
PC %	**8.53%**	**15.46%**	**8.92%**	**19.8%**	**8.71%**	**24.03%**	**15.9%**
Errors	21–19.09%	18–9.13%	7–6.14%	10–4.48%	3–2.88%	46–6.83%	**105–7.4%**
IMP	97	186	82	143	39	322	869
IMP %	**7.52%**	**14.6%**	**6.42%**	**12.7%**	**3.26%**	**11.5%**	**9.7%**
Errors	8–8.24%	9–4.83%	3–3.65%	10–6.99%	1–2.56%	14–4.34%	**45–5.2%**
InfPres	205	141	195	160	190	405	1296
InfPres %	**15.9%**	**11.06%**	**15.37%**	**14.21%**	**15.92%**	**14.46%**	**14.5%**
Errors	27–13.17%	9–6.38%	11–5.64%	14–8.75%	11 -5.78%	23–5.67%	**95–7.3%**
PartPres	16	14	11	15	17	25	98
PartPres %	**1.24%**	**1.18%**	**0.86%**	**1.33%**	**1.42%**	**0.003%**	**1.09%**
Errors	2–12.5%	2–14.28%	0–0%	4–26.67%	1–5.88%	0–0%	**9–9.2%**
CondPres	13	9	7	16	70	43	158
CondPres %	**1.01%**	**0.71%**	**0.55%**	**1.42%**	**5.86%**	**1.53%**	**1.76%**
Errors	3–23.1%	5–55.6%	0–0%	10–62.5%	5–7.14%	8–18.6%	**31–19.6%**
SubjPres	12	13	18	7	24	14	88
SubjPres %	**0.93%**	**1.02%**	**1.41%**	**0.62%**	**2.0%**	**0.5%**	**0.98%**
Errors	3–25%	1–7.69%	0–0%	0–0%	0–0%	14–100%	**18–20.4%**
PQP	4	3	3	15	0	49	74
PQP %	**0.31%**	**0.23%**	**0.23%**	**1.33%**	**0.0%**	**1.75%**	**0.82%**
Errors	0–0%	0–0%	0–0%	0–0%	0–0%	6–12.2%	**6–8.1%**
Future	4	3	8	6	107	58	186
Future %	**0.31%**	**0.23%**	**0.63%**	**0.53%**	**8.96%**	**2.07%**	**2.07%**
Errors	0–0%	0–0%	1–12.5%	0–0%	0–0%	0–0%	**1–0.53%**
FutPro	7	3	1	1	3	11	26
FutPro %	**0.54%**	**0.23%**	**0.078%**	**0.089%**	**0.25%**	**0.39%**	**0.29%**
Errors	0–0%	0–0%	0–0%	1–100%	0–0%	1–9.1%	**2–7.7%**
InfPast	3	2	4	7	9	10	35
InfPast %	**0.23%**	**0.15%**	**0.31%**	**0.62%**	**0.75%**	**0.35%**	**0.39%**
Errors	1–33.3%	0–0%	0–0%	0–0%	1–11.1%	0–0%	**2–5.7%**
CondPast	1	9	4	3	0	4	21
CondPast %	**0.07%**	**0.71%**	**0.31%**	**0.26%**	**0.0%**	**0.14%**	**0.23%**
PresProg	1	1	0	0	1	3	6
PresProg %	**0.07%**	**0.078%**	**0.0%**	**0.0%**	**0.084%**	**0.11%**	**0.067%**
SubjPast	1	1	0	2	0	6	10
SubjPast %	**0.07%**	**0.078%**	**0.0%**	**0.18%**	**0.0%**	**0.21%**	**0.11%**
Errors	0–0%	0–0%	0–0%	0–0%	0–0%	1–16.7%	**1–10%**
PS	0	1	0	0	0	3	4
PS %	**0.0%**	**0.078%**	**0.0%**	**0.0%**	**0.0%**	**0.11%**	**0.044%**
Errors	0–0%	0–0%	0–0%	0–0%	0–0%	2–66.7%	**2–50%**
IMPProg	0	0	2	0	0	0	2
IMPProg %	**0.0%**	**0.0%**	**0.15%**	**0.0%**	**0.0%**	**0.0%**	**0.022%**
Errors	0–0%	0–0%	1–50%	0–0%	0–0%	0–0%	**1–50%**
PastPart	0	0	1	1	2	1	5
PastPart %	**0.0%**	**0.0%**	**0.078%**	**0.089%**	**0.16%**	**0.03%**	**0.056%**
FutProg	0	0	0	0	1	0	1
FutProg %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.084%**	**0.0%**	**0.011%**
Imperative	0	0	0	0	0	12	12
Imperative %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.43%**	**0.133%**

Table 3. HL French group's essays by verbal tokens and forms.

HL French (n = 4)	Essay 1	Essay 2	Essay 3	Essay 4	Essay 5	Essay 6	Total Average
words	4872	5043	5532	5296	5071	9617	35,431
verbal token	**891**	**850**	**850**	**738**	**704**	**1703**	**5736**
IndPres	539	428	458	217	376	601	2619
IndPres %	**60.5%**	**50.3%**	**53.9%**	**29.4%**	**53.4%**	**35.3%**	**45.6%**
Errors	4–0.74%	6–1.4%	2–0.43%	1–0.46%	2–0.53%	25–4.2%	**40–1.5%**
PC	62	109	60	134	63	239	667
PC %	**6.9%**	**12.8%**	**7.1%**	**18.2%**	**8.95%**	**14.0%**	**11.6%**
Errors	2–3.2%	5–4.6%	3–5%	5–3.73%	2–3.2%	15–6.3%	32–4.8%
IMP	73	143	108	152	22	319	817
IMP %	**8.2%**	**16.8%**	**12.7%**	**20.6%**	**3.12%**	**18.7%**	**14.2%**
Errors	1–1.4%	6–4.2%	7–6.5%	17–11.2%	2–9.1%	11–3.4%	**44–5.4%**
InfPres	180	128	171	158	152	407	1196
InfPres %	**20.2%**	**15.1%**	**20.1%**	**21.4%**	**21.59%**	**23.9%**	**20.85%**
Errors	0–0%	0–0%	2–1.2%	0–0%	7–4.6%	1–0.24%	10–0.83%
PartPres	4	12	14	10	10	18	68
PartPres %	**0.44%**	**1.41%**	**1.64%**	**1.35%**	**1.42%**	**1.1%**	**1.18%**
Errors	1–25%	0–0%	0–0%	0–0%	1	0–0%	**2–2.9%**
CondPres	8	6	7	7	7	3	**38**
CondPres %	**0.89%**	**0.71%**	**0.82%**	**0.95%**	**0.99%**	**0.01%**	**0.66%**
Errors	0–0%	0–0%	2–28.6%	3–42.8%	0–0%	0–0%	**5–13.2%**
SubjPres	7	5	6	4	7	20	49
SubjPres %	**0.78%**	**0.58%**	**0.71%**	**0.54%**	**0.99%**	**1.17%**	**0.08%**
PQP	6	5	1	25	5	19	61
PQP %	**0.67%**	**0.58%**	**0.11%**	**3.38%**	**0.71%**	**1.1%**	**1.06%**
Errors	0–0%	0–0%	0–0%	2–8%	0–0%	0–0%	**2–3.3%**
Future	4	9	19	9	51	12	104
Future %	**0.44%**	**1.05%**	**2.22%**	**1.22%**	**7.24%**	**0.07%**	**1.81%**
Errors	0–0%	1–11.1%	0–0%	1–11.1%	0–0%	2–16.7%	**4–3.8%**
FutPro	2	0	1	2	4	8	17
FutPro %	**0.22%**	**0.0%**	**0.11%**	**0.27%**	**0.56%**	**0.04%**	**0.29%**
Errors	0–0%	0–0%	0–0%	1–50%	0–0%	0–0%	**1–5.9%**
InfPast	0	1	3	2	2	2	10
InfPast %	**0.0%**	**0.11%**	**0.35%**	**0.27%**	**0.28%**	**0.01%**	**0.17%**
CondPast	0	0	0	3	0	5	8
CondPast %	**0.0%**	**0.0%**	**0.0%**	**0.41%**	**0.0%**	**0.02%**	**0.13%**
SubjPast	0	0	0	2	0	1	3
SubjPast %	**0.0%**	**0.0%**	**0.0%**	**0.27%**	**0.0%**	**0.005%**	**0.05%**
PS	4	4	1	11	3	27	50
PS %	**0.44%**	**0.47%**	**0.11%**	**1.49%**	**0.42%**	**1.58%**	**0.87%**
Errors	0–0%	0–0%	0–0%	1–9.1%	0–0%	1–3.7%	2–4%
PastPart	1	0	0	2	1	6	10
PastPart %	**0.11%**	**0.0%**	**0.0%**	**0.27%**	**0.14%**	**0.03%**	**0.17%**
Errors	1–100%	0–0%	0–0%	2–100%	1–100%	6–100%	10–100%
Imperative	1	0	0	0	1	16	18
Imp. %	**0.11%**	**0.0%**	**0.0%**	**0.0%**	**0.14%**	**0.09%**	**0.32%**
ImpProg	0	0	1	0	0	0	1
ImpProg %	**0.0%**	**0.0%**	**0.11%**	**0.0%**	**0.0%**	**0.0%**	**0.017%**

Table 4. HL Spanish group's essays by verbal tokens and forms.

HL Spanish (n = 3)	Essay 1	Essay 2	Essay 3	Essay 4	Essay 5	Essay 6	Total/Average
word	2849	3230	2946	3052	2815	5300	20,192
word average	949.67	1076.67	982	1017.33	938.33	1766.67	6730.67
verbal token	**521**	**496**	**460**	**428**	**431**	**1041**	**3377**
IndPres	320	240	246	178	240	387	1611
IndPres %	**61.4%**	**48.38%**	**53.48%**	**41.59%**	**55.68%**	**37.17%**	**47.7%**
Errors	10–3.1%	7–2.9%	2–.81%	5–2.8%	4–1.7%	12–3.1%	40–2.5%
PC	40	75	51	109	28	256	559
PC %	**7.78%**	**15.12%**	**11.16%**	**25.46%**	**6.49%**	**24.61%**	**16.6%**
Errors	5–12.5%	0–0%	2–3.9%	5–4.6%	1–3.6%	13–5.1%	**26–4.6%**
IMP	21	64	64	31	2	109	291
IMP %	**4.03%**	**12.9%**	**13.91%**	**7.24%**	**0.46%**	**10.47%**	**8.62%**
Errors	1–4.76%	4–6.25%	19–29.7%	3–9.7%	0–0%	5–4.6%	32- 10.9%
InfPres	112	91	76	78	72	197	626
InfPres %	**21.5%**	**18.34%**	**16.52%**	**16.22%**	**16.71%**	**3.58%**	**18.53%**
Errors	8–7.1%	9–9.9%	4–5.3%	3–3.8%	0–0%	2–1.0%	**26–4.2%**
PartPres	3	3	3	5	3	6	23
PartPres %	**0.57%**	**.60%**	**0.65%**	**1.16%**	**0.69%**	**0.57%**	**0.68%**
Errors	0–0%	0–0%	1–33.3	0–0%	0–0%	0–0%	1–4.3%
CondPres	3	3	3	2	13	19	43
CondPres %	**0.57%**	**.60%**	**0.65%**	**0.46%**	**3.02%**	**1.82%**	**1.27%**
Errors	0–0%	1–33.3%	2–66.7%	1–50%	0–0%	3–15.8%	7–16.3%
SubjPres	4	5	3	5	8	16	41
SubjPres %	**0.76%**	**1.0%**	**0.65%**	**1.16%**	**1.86%**	**1.53%**	**1.21%**
Errors	1–25%	1–20%	0–0%	0–0%	0–0%	2–12.5	4–9.7%
PQP	2	7	3	8	0–0%	12	32
PQP %	**0.38%**	**1.41%**	**0.65%**	**1.86**	**0.0%**	**1.15%**	**0.94%**
Future	3	2	7	3	57	15	87
Future %	**0.57%**	**0.40%**	**1.52%**	**0.7%**	**13.22%**	**1.44%**	**2.57%**
Errors	2–66.7%	1–50%	0–0%	1–66.7%	0–0%	2–13.3%	6–6.9%
FutPro	9	2	1	2	3	8	25
FutPro %	**1.72%**	**0.40%**	**0.21%**	**0.46%**	**0.69%**	**0.77%**	**0.74%**
Errors	2	0–0%	0–0%	0–0%	0–0%	0–0%	2–8.0%
InfPast	3	2	0	5	3	7	20
InfPast %	**0.57%**	**0.40%**	**0.0%**	**1.16%**	**0.69%**	**0.67%**	**0.59%**
CondPast	0	0	0	1	0	3	4
CondPast %	**0.0%**	**0.0%**	**0.0%**	**0.23%**	**0.0%**	**0.29%**	**0.12%**
PresProg	0	0	1	0	1	0	2
PresProg %	**0.0%**	**0.0%**	**0.21%**	**0.0%**	**0.23%**	**0.0%**	**0.06%**
SubjPast	0	0	0	0	0	1	1
SubjPast %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.09**	**0.03%**
Imperative	1	0	0	0	1	1	3
Imperative %	**0.19%**	**0.0%**	**0.0%**	**0.0%**	**0.23%**	**0.09**	**0.89%**
Past participle	0	2	0	1	0	0	3
Past participle %	**0.0%**	**0.40%**	**0.0%**	**0.23%**	**0.0%**	**0.0%**	**0.89%**
InfPresProg	0	0	2	0	0	0	2
InfPresProg %	**0.0%**	**0.0%**	**0.43%**	**0.0%**	**0.0%**	**0.0%**	**0.06%**
ImpProg	0	0	0	0	0	3	3
ImpProg %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.29%**	**0.89%**
RecentPast	0	0	0	0	0	1	1
RecentPast %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.09**	**0.03%**

The 'words' column corresponds to the total number of words produced; the 'verbal tokens' column lists the total number of verbal tokens produced. Then, for each form, the first line corresponds to the number of tokens produced, while the second line gives the percentage for that form out of the total number of verbal tokens produced; the third line gives the number and percentage of erroneous forms (if there were no errors, that line was omitted). Thus, for instance, in essay 1, the L1 English group produced 1289 verbal tokens and 815 or 63.22% were indicative present; 36 or 4.41% were erroneous (i.e., they should have been in another form given the context in which it was produced)[6].

The 'words' and 'verbal tokens' columns show that the participants' production only varied slightly except for the last essays that are longer. They are very prolific in terms of different forms (between 5 and 19 different forms). However, the majority of the tokens are in the indicative present (52% average across the 6 essays) followed by *passé composé* (15.9%), infinitive present (14.5%), and then *imparfait* (9.6%). Participants do produce a few tokens of less commonly used forms such as *plus-que-parfait* (between 0 and 15 tokens), and the subjunctive present (between 7 and 24). It is also noteworthy that participants distinguish between two ways of expressing future temporality: Simple future (e.g., *le musicien jouera demain* 'the musician will play tomorrow') and near future (e.g., *le musicien va bientôt jouer* 'the musician is about to play').

The HL French group's productivity was also relatively the same for the first five essays and much greater for the final essay both in terms of total number of words and verbal tokens. Indicative present is the most frequent form (45.6% average) followed by infinitive present (20.85%), *imparfait* (14.2%), and *passé composé* (11.6%).

They averaged between 7.75 and 11.75 forms per essay with a total of 17 different forms. They also used the subjunctive present (0.08%) and *plus-que-parfait* (1.06%), but both forms represent a very small percentage of their overall production. Note that their past temporality includes *passé simple* and that their future temporality is expressed by simple future and near future with a preference for the former.

The HL Spanish group's performance to the other two groups is similar in terms of productivity as displayed in Table 4.

The HL Spanish group's last essays were longer, they averaged 9.3 forms across the 6 essays and used up to 19 different morphological forms. Most verbal tokens are indicative present (47.7% average), followed by infinitive present (18.5%), *passé composé* (16.6%), and *imparfait* (8.62%). They produce a total of 32 tokens with *plus-que-parfait* (94% of total verbal tokens), and 41 with subjunctive present (1.21%). In expressing future temporality, they also distinguish between simple future with a total of 87 verbal tokens (2.6%) and near future with 24 verbal tokens (0.74%). Pairwise comparisons reveal that regarding the number of verbal tokens produced, the only significant difference is between the HL French group and the L1 English group ($p = 0.007$).

A Pearson χ^2 analysis performed with nine forms revealed a significant difference (Pearson $\chi^2 = 304.162$, df = 16, $p < 0.000$)[7]. A follow-up Tukey Post Hoc test indicated that there is no statistical difference between groups for subjunctive present or *plus-que-parfait*, but there is a statistical difference ($p = 0.05$) for: (a) *passé composé, imparfait*, infinitive present, present participle, and conditional present (L1 English, HL Spanish ≠ HL French); (b) future (L1 English, HL French ≠ HL Spanish); (c) indicative present (L1 English ≠ HL French, HL Spanish).

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[6] The abbreviations used for the forms are as follows: IndPres (indicative present), PC (*passé composé*), IMP (*imparfait*), InfPres (infinitive present), PartPres (present participle), CondPres (conditional present), SubjPres (subjunctive present), PQP (*plus-que-parfait*), FutPro (*future proche*, near future), InfPast (infinitive past), CondPast (conditional past), PresProg (present progressive), SubjPast (past subjunctive), PS (*passé simple*), IMPProg (*imparfait* progressive), PastPart (past participle), FutProg (future progressive).

[7] The forms were chosen because they were either frequent (i.e., indicative present, infinitive present, *passé composé, imparfait*, future) or provided a temporality and/or mood contrast (i.e., subjunctive present, *plus-que-parfait*, present participle, conditional present).

Overall, all three groups were quite accurate in producing different verbal forms. Table 5 presents a summary of the number and percentage of the most frequent erroneous forms by groups. The other forms had only a total of 1–2 errors.

Table 5. Summary of most frequent erroneous forms.

	L1 English		HL French		HL Spanish	
	Erroneous Tokens	Percentage	Erroneous Tokens	Percentage	Erroneous Tokens	Percentage
IndPres	122	2.65%	40	1.5%	40	2.5%
PC	105	7.4%	32	4.8%	26	4.6%
IMP	45	5.2%	44	5.4%	32	10.9%
InfPres	95	7.3%	10	0.83%	26	4.2%
PartPres	9	9.2%	68	1.18%	1	4.3%
CondPres	31	19.6%	5	13.2%	7	16.3%
SubjPres	18	20.4%	0	0%	4	9.7%
PQP	6	8.1%	2	3.3%	0	0%
Future	1	0.53%	4	3.8%	6	6.9%
PastPart	5	0.56%	10	100%	0	0%

The L2 English participants produced the most errors with subjunctive present (20.4%) and conditional present (19.6%), the least with *passé composé* (7.4%) and *imparfait* (5.2%) for forms with the most tokens. The HL groups have the highest percentage of erroneous forms with conditional present (16.3% and 13.2% for HL Spanish and HL French, respectively). An error analysis conducted with a General Linear Mixed Model[8] revealed a significant difference for a) future ($p = 0.007$) with all three groups producing the most tokens in essay 5, clearly a consequence of the topic, but with error percentages from 0.53%, 3.8%, and 6.9% for the L1 English, Hl French, and HL Spanish group, respectively; b) *passé simple* for group ($p = 0.011$) and an interaction of essay by group ($p = 0.011$) as expected given that the L1 English group produced only four tokens in two essays, the HL Spanish did not produce any, while the HL French produced a total of 50 with a wide range between essays (1–27); both groups produced only two errors, but corresponding to 4% for HL French and 50% for L1 English; c) an interaction of essay by group for *imparfait* ($p = 0.05$); the HL Spanish group (n = 3) is much less productive (total of 291 tokens, 2–109 range, but with the highest percentage of errors at 10.9%) than the HL French group (n = 4) (total of 817 tokens, 22–319 range, 5.4% errors) and the L1 English group (n = 9) (total of 869 tokens, 39–322 range, 5.2% errors).

Some of the subjunctive forms were ambiguous in that it could not be distinguished from an indicative form (e.g., *il faut que tu restes* 'you have to stay', *restes* is both indicative and subjunctive present) as opposed to indicative and subjunctive present inflections presenting clear contrasts (e.g., *il faut que tu partes* 'you have to leave-SᴜʙᴊPʀᴇs' vs. *quand pars-tu* 'when are you leaving-IɴᴅPʀᴇs'). This is the case for all the verbs ending in -*er* at the infinitive except for first and second plural forms.

The percentage of ambiguous forms across essays is as follows: L1 English (20.5%); HL French (36.7%), HL Spanish (43.9%). There are no statistically significant differences between groups ($p = 0.192$).

7. Discussion

The main hypothesis according to which the participants would display a well-contrasted TAM system is supported for all three groups who: (a) Use a variety of forms to express present, past, and future temporalities with low inaccuracy percentages; (b) make appropriate aspectual distinctions in the past (i.e., *passé composé vs. imparfait*); (c) select different moods (i.e., indicative, subjunctive, conditional, imperative, infinitive); (d) their performance varies with the essay topics as illustrated in the following Figures 1–3. This is important to support the hypothesis of a well contrasted TAM

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[8]   A General Linear Mixed Model (GLMM) was used to test for significant differences in mean error percentage for the fixed effects of groups, essays, and their interaction. Subject intercept was used as a random effect. A separate GLMM was conducted for each error type.

system. The irregular lines showing the learners' production from essay 1 to essay 6 indicate that they are not stuck on a plateau: Their production varies depending on the narratives they are writing even for forms they do not produce often such as the subjunctive present (e.g., 3–16 for HL Spanish) or the conditional present (e.g., 7–70 for L1 English), while the indicative present use varies as well.
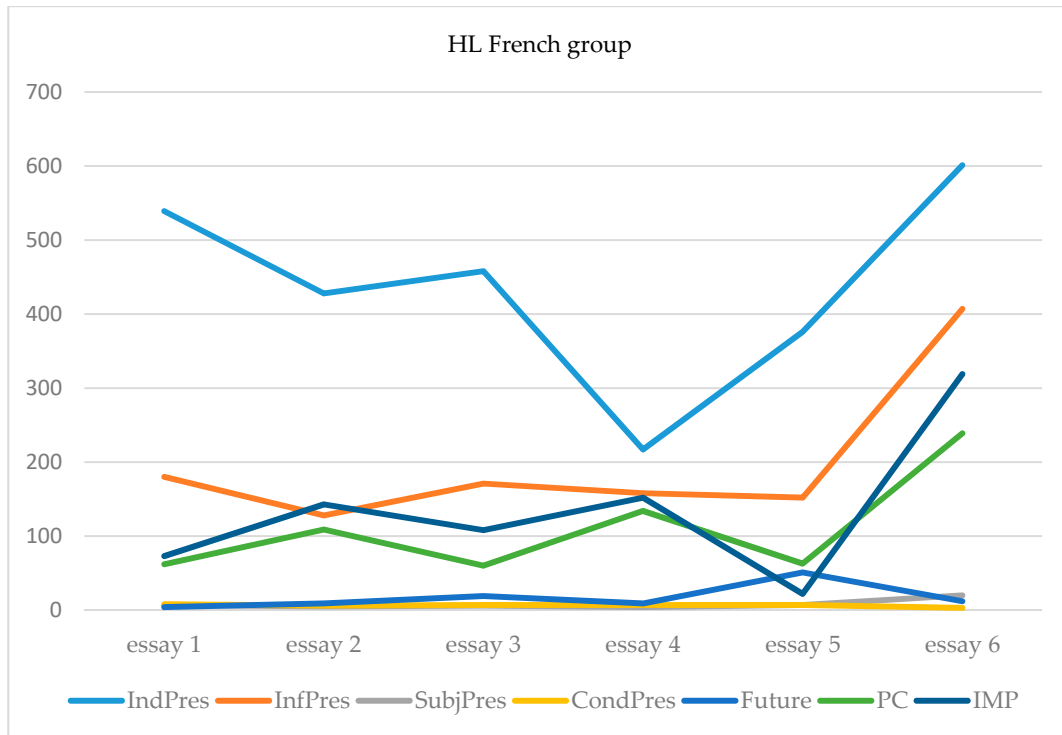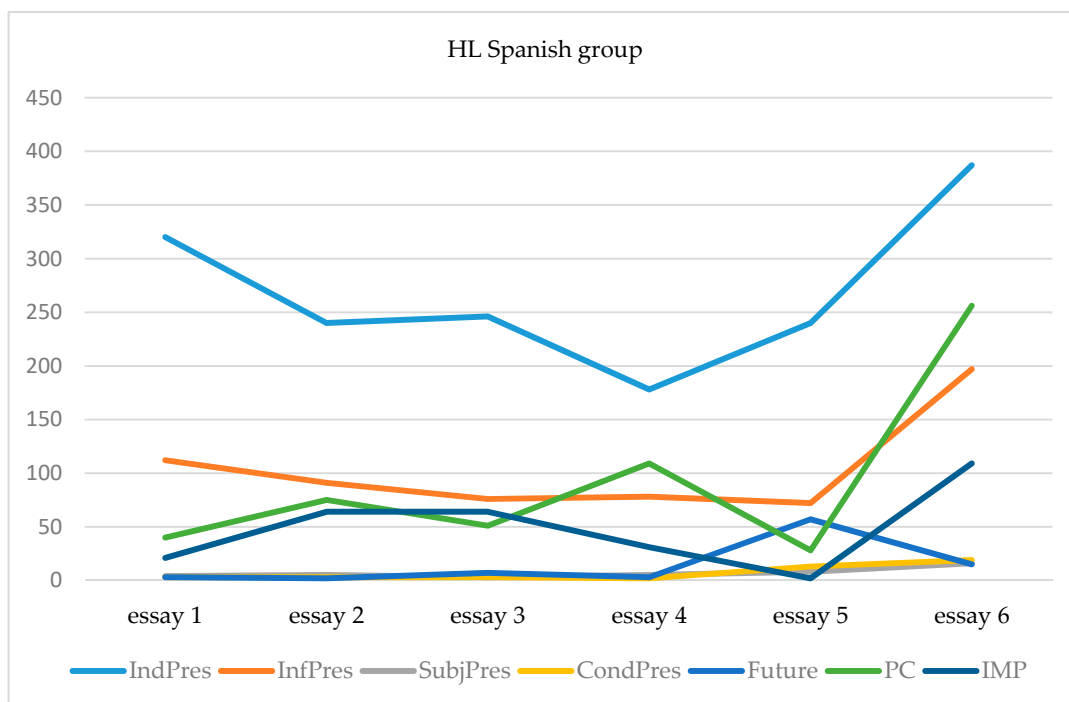

Figure 1. Forms used across essays (HL French group).

Figure 2. Forms used across essays (HL Spanish group).
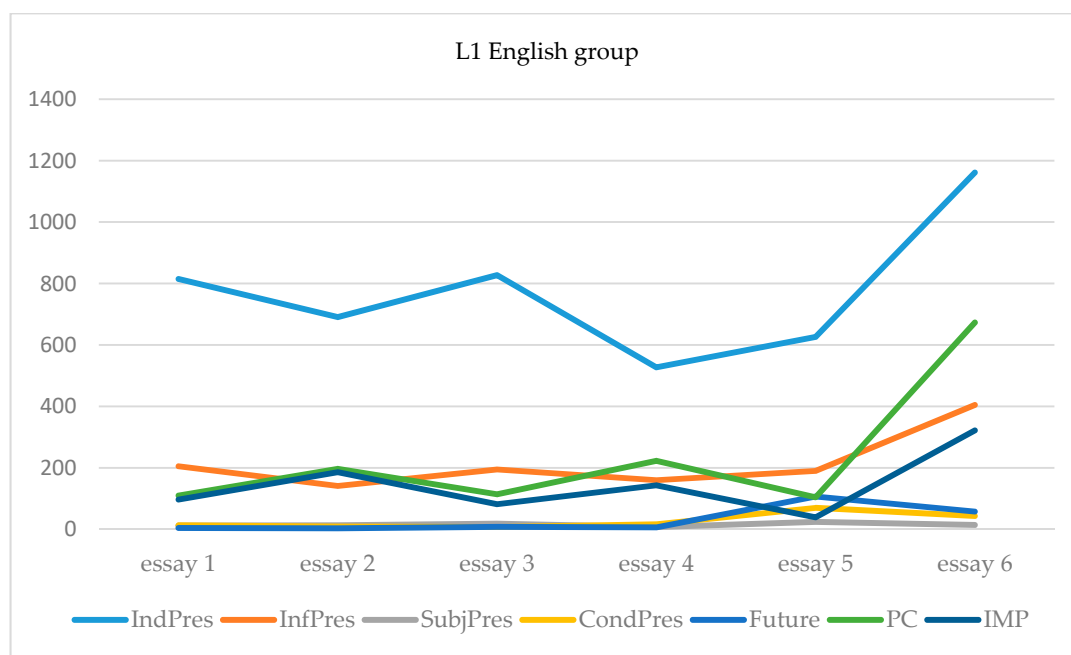
Figure 3. Forms used across essays (L1 English group).

The following examples illustrate how participants distinguished between various moods and forms.

13. *Une âme sœur est*-IndPres *quelqu'un qu'on aime*-IndPres, *et qui nous aide*-IndPres *à devenir*- InfPres *la meilleure personne qu'on puisse*- SubjPres *être*-InfPres. A soulmate is someone we love and who helps us to become the best person we can be'.

14. *Donc la mort de Renée n'est*-IndPres *pas inutile parce qu'elle a*- IndPres *un but, la mort de Renée permet*- IndPres *que Paloma vive*-SubjPres. 'So Renée's death is not useless because it has a goal, Renée's death allows Paloma to live'.

Both (13) (essay 3, HL French) and (14) (essay 3, HL Spanish) show that the participants differentiate between the indicative and subjunctive present. (13) also illustrates that this participant distinguishes between finite and non-finite forms as all three groups did in appropriate contexts such as after a finite verb or a preposition, as in (15) and (16), respectively (essay 4, L1 English).

15. *Tandis que tous les policiers déshumanisent*-IndPres *les juifs, un policier écoute*- IndPres *Sarah et la laisse*-IndPres *s'échapper*-InfPres *du camp.* 'While all the policemen dehumanize Jews, one policeman listens to Sarah and lets her flee the camp'.

16. *Les concierges qui ont*- IndPres *du courage et de la sympathie pour les familles juives et ceux qui ont*- IndPres *peur des policiers et qui sont-indpres coupables de dénoncer*- InfPres *les familles.* 'Building managers who are brave and feel for the Jewish families, and those who are afraid of the policemen and who are capable of denouncing families'.

These examples also partially explain why the indicative present accounts for over half of the verbal tokens: It is used for descriptions even in past contexts. An example of a rare exception of an erroneous nonfinite form appears in (17):

17. *Quand elle est arrivée, elle a demandé de voir M. Lamarc, elle a dû attendre seulement quelques minutes pour lui *apparaître*-Inf *et *mener*-Inf *elle à son bureau* (essay 5, L1 English group) 'When she arrived, she asked to see Mr. Lamarc, she only had to wait a few minutes for him to appear and show her to his office'

In this complex sentence with seven verbal tokens, *apparaître* and *mener* are erroneously nonfinite, but it is likely due to a negative L1 transfer since nonfinite forms are appropriate in English and not to the inability to distinguish between finite and nonfinite forms[9].

The next examples show how the same L1 English participant can use verbs with *plus-que-parfait* appropriately in (18) and (19), including a past conditional (and a passive voice), but not in (20) (essay 4).

18. *Si Julia n'avait pas trouvé-*PQP *le secret de la famille de son mari, sa vie n'aurait sans doute pas été touchée-*COND PAST. 'If Julia had not found her husband's family, it would probably not have changed her life'.

19. *Parce que leur famille avait déménagé-*PQP *dans l'appartement de Sarah il y a plusieurs années, Julia avait trouvé-*PQP *le lien vers les deux familles.* 'Because her family had moved into Sarah's apartment several years ago, Julia had found the connection between the two families'.

20. *Peut-être que si l'Holocauste n'a pas eu lieu-**PC/PQP, *Sarah aurait vécu-*COND PAST *une longue vie innocente.* 'Maybe, if the Holocaust had not taken place, Sarah would have lived a long, innocent life'.

(18) also illustrates that participants generally used *passé composé* instead of *plus-que-parfait*.

In expressing future temporality, participants typically used simple future as in (21) (essay 5, HL Spanish participant), but also near future as in (22) (essay 5, L1 English participant).

21. *Dans cette partie, on apprendra-*FUT *une chose secrète de chaque personnage et Jeannot révèlera-* FUT *son vrai nom.* 'In this part, we will learn a secret about each character and Jeannot will reveal his real name'.

22. *Dans mon film, je vais changer-*FutPro *le rôle de Marcel Langer un peu, et l'acteur qui peut-*IndPres *compléter-*InfPres *ce personnage est-*IndPres *Gerard Butler.* 'In my movie, I'm going to change the role of Marcel Langer a bit, and the actor who can complete this character is Gerard Butler'.

It thus appears that at least at times, our participants may have started to acquire forms that they do not yet produce very often because their writing does not create the discursive contexts that would require them. However, they are able to produce complex sentences that combine different temporalities as in (23) (essay 4, HL French participant).

23. *Par contre, le petit frère de Sarah n'avait pas été trouvé-*PQP, *car il s'était caché-*PQP *et Sarah nous racontera-*FUT *les malheurs et sentiments qu'elle a ressentis-*PC *durant plus d'un mois.* 'On the other hand, Sarah's little brother was not found because he hid and Sarah will tell us about the misfortunes and feelings she experienced for over a month'.

This participant wrote a complex sentence in a past context using four verbal tokens with two past forms–*plus-que-parfait* and *passé composé*–but also with simple future for one token, demonstrating the ability to use two different temporalities in a single sentence.

The first prediction that participants would perform better and rely more on the indicative present and *passé composé* was confirmed since the former averaged 47%, 49%, and 52% in the total production of the HL French, HL Spanish, and L1 English groups, respectively. It is not confirmed as strongly for the *passé composé* that is indeed used more often than the *imparfait* or the *plus-que-parfait* to express past temporality, but not overwhelmingly so.

The second prediction is confirmed by a highly accurate production of verbal tokens with very low percentages of erroneous forms. All three groups made the most errors with conditional present.

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9 The appropriate verbal forms would be: *Quand elle est arrivée, elle a demandé de voir M. Lamarc, elle a dû attendre seulement quelques minutes pour qu'il apparaisse-*SubjPres *et la mène-*SubjPres *à son bureau.*

24. *Quand sa famille a été soudainement arrêtée*-pc *pour la déportation, Sarah a verrouillé*-pc *son petit frère Michel dans le placard de sorte qu'il serait*-*CondPres *sûr et caché jusqu'à ce qu'elle puisse*- SubjPres *retourner*-InfPres *le sauver*-InfPres. 'When her family was suddenly arrested to be deported, Sarah locked up her little brother Michel in the closet so that he would be safe and hidden until she could come back and save him'.

In (24), out of six finite and nonfinite verbal tokens (essay 4, L1 English), only one is erroneously used with conditional present instead of subjunctive present (i.e., *serait* instead of *soit*) that she does know (i.e., *puisse*). In (25) (essay 5, L1 English), out of four finite and nonfinite forms, the conditional present form (*changerais*) is again the only erroneous one.

25. *J'ai bien aimé*-pc *le livre, mais pour l'adapter*-InfPres *pour le cinéma il faut*-IndPres *que je changerais*-*CondPres/SubjPres *plusieurs parties de l'histoire.* 'I liked the book, but to turn it into a movie, I need to change several parts of the story'.

In (26) (essay 3, L1 English), *a travaillé*-*pc should be *travaille*-IndPres as *depuis* triggers indicative present because although the event is anchored in the past, it is still ongoing.

26. *Renée est*-IndPres *une veuve et concierge qui a travaillé*-*pc/IndPres *dans l'appartement depuis 27 ans, mais elle cache*-IndPres *qu'elle aime*- IndPres *la philosophie, Ia litterature, la gastronomie et la musique classique parce qu'elle croit*- IndPres *que les residents ne voudraient*-CondPres *pas cela.* 'Renée is a widow and building manager who has been working for 27 years, but she hides that she likes philosophy, literature, gastronomy, and classical music because she thinks that the residents would not like it'.

The exemple in (27) (essay 2, HL French) shows how *plus-que-parfait* is used inconsistently, replaced by *passé composé*, although it is appropriately followed by two other past forms.

27. *François avait toujours imaginé*-PQP *que ses parents sportifs se sont rencontrés*-*pc/PQP *au bord de la piscine ou au stade et qu'il avait*-imp *un frère, jusqu'un jour il a appris*-pc *la vérité.* 'François had always imagined that his athletic parents had met by the pool or the stadium and that he had a brother until he learned the truth one day'.

Finally, the last prediction according to which an L1 facilitative effect would be found is partially confirmed for the HL French, but not for the HL Spanish participants. The former outperformed the other groups in terms of productivity, accuracy, and variety of forms used, but their performance was inconsistent. A positive transfer does not appear to be favoring the HL Spanish participants whose performance on *passé composé* and *imparfait* instantiating the perfective-imperfective distinction as in Spanish varies quite a bit as does their performance on the present and past subjunctive, used more frequently in Spanish than in French, with similar semantic and syntactic triggers e.g., (Fernández 2008; Izquierdo and Collins 2008)[10].

Our findings are mixed regarding the Interface hypothesis. On the one hand, the participants do not exhibit persistent optionality and/or indeterminacy in their selection of moods (they use all of them appropriately) and are able to contrast the expression of realis (i.e., indicative) with the expression of irrealis (i.e., subjunctive, conditional). On the other hand, their production was lopsided in favor of the indicative and most of the triggers they used were cases of obligatory subjunctive (e.g., *bien que* 'although', *vouloir* 'want'), not of optional subjunctive such as superlatives (n = 3) or indefinite

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[10] The Sonoran Mexican Spanish of our participants does not differ from European Spanish in its use of past aspectual distinctions or indicative-subjunctive alternation (Carvalho 2018, personal communication).

antecedents (they did not produce any)[11]. So one may argue that internal interfaces (i.e., inflectional morphology across all three temporalities) are indeed easier to acquire than external interfaces (i.e., mood selection). There is stronger and more reliable evidence for the former than the latter from this dataset. A free production task shows what participants are comfortable producing, but it allows them to avoid forms they may feel uncertain about. The results of the preference/grammaticality judgment task in the longitudinal case study of Billy, an Anglophone instructed learner (Ayoun 2015), suggest difficulties with optional subjunctive. Billy preferred the indicative and incorrectly rejected the corresponding sentence with the subjunctive (e.g., *mes parents sont les seules personnes que je connais*-INDPRES/*connaisse*-SUBJPRES *ici* 'my parents are the only people I know here'). The findings from a greater number of participants at different proficiency levels from this and other forced-choice tasks such as a sentence completion task would help us determine whether external interfaces remain more difficult than internal interfaces.

8. Conclusions

The present longitudinal study focused on the L2 acquisition of the French TAM system by three different groups of instructed learners who benefitted from a specific, targeted input with repeated exposure. Their performance on six essays reflects high accuracy percentages and a large number of different forms as well as the complex morpho-syntax required for the subjunctive since it only occurs in subordinate clauses.

We acknowledge the limitation of a small and unequal number of participants per group, but that is offset by the benefits of controlling a targeted input. The choice of topics may have also influenced the participants' production as they may not have been equally inspired by all, although they indicated they enjoyed the novels and films. Second, it would have been interesting to collect written samples in the classroom as well, some of which could have been designed as more guided production tasks in an effort to elicit verbal forms that the participants do not spontaneously produce, but may have acquired at least to a certain degree such as *plus-que-parfait* or subjunctive present.

Future studies may want to investigate whether a different pedagogical approach would lead to a different outcome. In the present study, instructor-led discussions focused on the content of the novels. Recasts were used to implicitly signal to the learner when a form was not target-like, but without interrupting the flow of the interaction, so there was no explicit focus on forms. Although implicit negative feedback in the form of recasts has been empirically proven to be effective e.g., (Li 2010) but see (Ellis and Sheen 2006) for a critical review, meta-analyses strongly suggest that explicit instruction may be more effective than implicit instruction (Norris and Ortega 2000). More specifically, an oral and written treatment was significantly more effective than written treatments alone in either implicit or explicit conditions (Norris and Ortega 2015).

Future studies should administer both oral and written explicit feedback. In the specific case of L2 French, explicit instruction may be useful for difficult aspectual distinctions, mood alternations, and less frequently used forms (i.e., *plus-que-parfait*, future perfect) along with less morphologically salient forms (e.g., subjunctive forms of verbs ending in -*er*) and non-prototypical forms as suggested elsewhere e.g., (Blyth 2005). Yang and Lyster (2010) offer encouraging results in that Chinese-speaking learners of L2 English who were provided with prompts showed greater accuracy in post-tests in producing regular past tense forms. However, learners do not necessarily notice all the written corrective feedback they receive, and the linguistic accuracy of their revised output may depend on the type of errors and feedback (Cerezo et al. 2019).

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[11] The 160 subjunctive tokens were used with the following triggers: *de sorte que* (n = 1), *afin que* (n = 2), *après que* (n = 1)—although it is followed by the indicative in prescriptive grammars, French native speakers use it with the subjunctive—*bien que* (n = 26), *avant que* (n = 6), *pour que* (n = 14), *jusqu'à ce que* (n = 17), *que* (n = 20), *falloir* (n = 6), *aimer* (n = 3), *souhaiter* (n = 1), *vouloir* (n = 34), *ne pas croire* (n = 1), *le fait que* (n = 2), noun/adjective *que* (n = 23), superlative (n = 3).

It would thus be helpful to continue investigating the L2 acquisition of TAM systems from an Interface hypothesis perspective with a combination of written and oral elicitation tasks such as cloze tests, production tasks followed by explicit feedback, as well as preference and grammaticality judgment tasks; an interpretation task that would present a short paragraph followed by a comprehension question to be answered in two or three sentences could be insightful as well. It would be interesting to see if the Interface hypothesis can be extended beyond promising current findings for Spanish subjunctive e.g., (Ahern et al. 2016; Borgonovo et al. 2015; van Osch et al. 2017).

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Appendix A Essays' Topics [Translated from French]

Essay 1. Oscar et la dame rose

1. Summarize the novel in a few sentences. 2. The narrator is also the main character, how does it impact the story? What is the only exception towards the end? Why? 3. Who are the other characters and what roles do they play in Oscar's life. 4. Is Oscar a little boy like the others? 5. How old is Oscar at the end of the story? Please explain. 6. Critic the story. How did you react? Did you find answers to questions you may have had about childhood, sickness, death or God?

Essay 2. Un secret

1. Summarize the novel in a few sentences. 2. There are several similarities between *Oscar* and *Un secret*, please choose three and explain what they are. 3. Was François a happy child? Why or why not? Who are the adults who play an important part in his life? 4. How does History play a part in the story of François' family? 5. Why could one say that the end is both dramatic and sad, but also ironic for Maxime and Tania? 6. Critic the story. How did you react? What did like, dislike? What moved you?

Essay 3. L'élégance de l'hérisson

1. Summarize the novel in a few sentences. 2. How is this novel original? Find two or three ways. For instance, think about the narrator(s) along the story as well as the way the novel is divided in several parts. 3. The novel is full of contrasts, find and explain three of them. 4. How does the novel answer these questions: what is a life worth? What's a soul mate? Is René's death useless? 5. Did this novel change your perspective on life? What did like, dislike? What moved you?

Essay 4. Elle s'appelait Sarah

1. Summarize the novel in a few sentences. 2. Describe the narration techniques used by the author? How do they impact the reader? 3. How did World War II change the lifes of the three main families. How do they become closer after the war? 4. Find two parallels between *Un Secret* and *Elle s'appelait Sarah*. 5. What have you learned about World War II? Which character touched you the most and why?

Essay 5. Adaptation of Les enfants de la liberté

Adapt Marc Lévy's novel into a movie by writing the script. Choose the actors for the main characters, explain your selection, that is, why are they good choices to interpret the parts?

Essay 6. Choose one of the following movies: *Il y a longtemps que je t'aime* (Claudel 2008), *Les choristes* (Barratier 2004), *La vie rêvée des anges* (Zonca 1998). Take notes as you watch it, then write a 4–6 page short story.

References

Ahern, Aoife, José Amenós-Pons, and Pedro Guijarro-Fuentes. 2016. Mood interpretation in Spanish: Towards an encompassing view of L1 and L2 interface variability. In *Acquisition of Romance Languages: Old Acquisition Challenges and New Explanations from a Generative Perspective*. Edited by Pedro Guijarro-Fuentes, Pilar Larrañaga and Maria Juan-Garau. Berlin: Mouton de Gruyter, pp. 141–69.

Ayoun, Dalila. 2005. The acquisition of tense and aspect in L2 French from a Universal Grammar perspective. In *Tense and Aspect in Romance Languages: Theoretical and Applied Perspectives*. Edited by Dalila Ayoun and Rafael Salaberry. Amsterdam: John Benjamins, pp. 79–127.

Ayoun, Dalila. 2013. *The Second Language Acquisition of French Tense, Aspect, Mood and Modality*. Amsterdam: John Benjamins.

Ayoun, Dalila. 2015. There is no time like the present: A longitudinal case study in L2 French acquisition. In *The Acquisition of the Present*. Edited by Dalila Ayoun. Amsterdam: John Benjamins, pp. 87–113.

Ayoun, Dalila, and Jason Rothman. 2013. Generative approaches to the L2 acquisition of temporal-aspectual-mood (TAM) systems. In *Research Design and Methodology in Studies on Second Language Tense and Aspect*. Edited by Rafael Salaberry and Llorenc Comajoan. Berlin: Mouton de Gruyter, pp. 119–56.

Blyth, Carl. 2005. From empirical results to the teaching of aspectual distinctions. In *Tense and Aspect in Romance Languages*. Edited by Dalila Ayoun and Rafael Salaberry. Amsterdam: John Benjamins, pp. 211–52.

Borgonovo, Claudia, Joyce Bruhn de Garavito, and Philippe Prévost. 2015. Mood selection in relative clauses. *Studies in Second Language Acquisition* 37: 33–69. [CrossRef]

Borgovono, Claudia, and Philippe Prévost. 2003. Knowledge of polarity subjunctive in L2 Spanish. Paper presented at 27th Boston University Conference on Language Development, Somerville, MA, USA, November 1–3; pp. 150–61.

Celce-Murcia, Marianne, and Diane Larsen-Freeman. 1999. *The Grammar Book. An ESL/EFL Teacher's Course*, 2nd ed. Boston: Heinle & Heinle.

Cerezo, Lourdes, Rosa Manchón, and Florentina Nicolás-Conesa. 2019. What do learners notice when processing written corrective feedback? In *The Routledge Handbook of Second Language Research in Classroom Learning: Processing and Processes*. New York: Routledge, pp. 173–87.

Collentine, Joseph. 2003. The development of subjunctive and complex-syntactic abilities among FL Spanish learners. In *Studies in Spanish Second Language Acquisition: The State of the Science*. Edited by Barbara Lafford and Rafael Salaberry. Washington: Georgetown University Press, pp. 74–97.

Collentine, Joseph. 2010. The acquisition and teaching of the Spanish subjunctive: An update on current findings. *Hispania* 93: 39–51.

Comrie, Bernard. 1976. *Aspect*. Cambridge: CUP.

Ellis, Rod, and Younghee Sheen. 2006. Reexamining the role of recasts in second language acquisition. *Studies in Second Language Acquisition* 28: 575–600. [CrossRef]

Fernández, Claudia. 2008. Reexamining the role of explicit information in processing instruction. *Studies in Second Language Acquisition* 30: 277–305. [CrossRef]

Gass, Susan. 2013. *Input, Interaction and the Second Language Learner*. Mahwah: Lawrence Erlbaum Associates.

Goad, Heather, Lydia White, and Jeffrey Steele. 2003. Missing inflection in L2 acquisition: Missing syntax or L1-constrained prosodic representations? *Canadian Journal of Linguistics* 48: 243–63.

Hawkins, Roger, and Cecilia Yuet-hung Chan. 1997. Partial availability of Universal Grammar in second language acquisition: The failed formal features hypothesis. *Second Language Research* 13: 187–226. [CrossRef]

Hawkins, Roger, and Sarah Liszka. 2003. Locating the source of defective past tense marking in advanced L2 English speakers. In *The Interface between Syntax and Lexicon in Second Language Acquisition*. Edited by Roeland van Hout, Aafke Hulk, Folkert Kuiken and Richard Towell. Amsterdam: John Benjamins, pp. 21–44.

Haznedar, Belma, and Bonnie Schwartz. 1997. Are there optional infinitives in child L2 acquisition? In *Proceedings of the 21st Annual Boston University Conference on Language Development*. Edited by Elizabeth Hughes, Mary Hughes and Annabel. Somerville: Cascadilla Press, pp. 257–68.

Herschensohn, Julia. 2001. Missing inflection in second language French: Accidental infinitives and other verbal deficits. *Second Language Research* 17: 273–305. [CrossRef]

Herschensohn, Julia, and Debbie Arteaga. 2009. Tense and verb raising in advanced L2 French. *Journal of French Language Studies* 19: 291–318. [CrossRef]

Howard, Martin. 2005. The emergence and use of the plus-que-parfait in advanced French interlanguage. In *Focus on French as a Foreign Language*. Edited by Jean-Marc Dewaele. Clevedon: Multilingual Matters, pp. 63–85.

Howard, Martin. 2008. Morpho-syntactic development in the expression of modality: The subjunctive in French L2 acquisition. *Revue Canadienne de Linguistique Appliquée* 11: 171–91.

Howard, Martin. 2009. Expressing irrealis in L2 French: A preliminary study of the conditional and tense-concordancing in L2 acquisition. *Issues in Applied Linguistics* 17: 113–35.

Howard, Martin. 2012. From tense and aspect to modality: The acquisition of future, conditional and subjunctive morphology in L2 French. A preliminary study. *Cahiers Chronos* 24: 201–23.

Howard, Martin. 2015. At the interface between sociolinguistic and grammatical development: The expression of futurity in L2 French. A preliminary study. *Arborescence* 5: 97–125. [CrossRef]

Izquierdo, Jesús. 2009. L'aspect lexical et le développement du passé composé et de l'imparfait en français L2: Une étude quantitative auprès d'apprenants hispanophones. *The Canadian Modern Language Review* 65: 587–613. [CrossRef]

Izquierdo, Jesús. 2014. Multimedia instruction in foreign language classrooms: Effects on the acquisition of the French perfective and imperfective distinction. *The Canadian Modern Language Review* 70: 188–219. [CrossRef]

Izquierdo, Jesús, and Laura Collins. 2008. The facilitative role of L1 influence in tense-aspect marking: A comparison of Hispanophone and Anglophone learners of French. *The Modern Language Journal* 92: 350–68. [CrossRef]

Izquierdo, Jesús, and Maria Kihlstedt. 2019. L2 imperfective functions with verb types in written narratives: A cross-sectional study with instructed Hispanophone learners of French. *The Modern Language Journal* 103: 291–307. [CrossRef]

James, Francis. 1986. *Semantics of the English Subjunctive*. Vancouver: University of British Columbia Press.

King, Larry D., and Margarita Suñer. 1980. The meaning of the progressive in Spanish and Portuguese. *Bilingual Review* 7: 222–39.

Klein, Wolfgang, and Clive Perdue. 1997. The Basic Variety (or couldn't natural languages be much simpler?). *Second Language Research* 13: 301–47. [CrossRef]

Labeau, Emmanuelle. 2007. Pas si simple! La place du PS dans l'interlangue d'apprenants. *Cahiers Chronos* 19: 177–97.

Labeau, Emmanuelle. 2009. Le PS: Cher disparu de la rubrique nécrologique? *Journal of French Language Studies* 19: 61–86. [CrossRef]

Lardiere, Donna. 2000. Mapping features to forms in second language acquisition. In *Second Language Acquisition and Linguistic Theory*. Edited by John Archibald. Oxford: Blackwell, pp. 102–29.

Lardiere, Donna. 2008. Feature assembly in second language acquisition. In *The Role of Formal Features in Second Language Acquisition*. Edited by Juana Liceras, Helmut Zobl and Helen Goodluck. New York: Lawrence Erlbaum, pp. 106–40.

Lardiere, Donna. 2009. Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research* 25: 173–227. [CrossRef]

Lealess, Allison. 2005. En Français, il Faut Qu'on Parle Bien: Assessing Native-Like Proficiency in L2 French. Master's thesis, University of Ottawa, Ottawa, ON, Canada.

Li, Shaofeng. 2010. The effectiveness of corrective feedback in SLA: A meta-analysis. *Language Learning* 60: 309–65. [CrossRef]

McManus, Kevin, and Rosamond Mitchell. 2015. Subjunctive use and development in L2 French: A longitudinal study. *Language, Interaction & Acquisition* 6: 42–73.

Mourelatos, Alexander. 1978. Events, processes, and states. *Language and Philosophy* 2: 415–34. [CrossRef]

Myles, Florence. 2005. The emergence of morpho-syntactic structure in French L2. In *Focus on French as a Foreign Language: Multidisciplinary Approaches*. Edited by Jean-Marc Dewaele. Clevedon: Multilingual Matters, pp. 88–113.

Norris, John, and Lourdes Ortega. 2000. Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning* 50: 417–528. [CrossRef]

Norris, John, and Lourdes Ortega. 2015. Implicit and explicit instruction in L2 learning. Norris & Ortega (2000) revisited and updated. In *Implicit and Explicit Learning of Languages*. Edited by Patrick Rebuschat. Amsterdam: John Benjamins, pp. 443–82.

Palmer, Frank R. 2001. *Mood and Modality*. New York: Cambridge University Press.

Palmer, Frank R. 2003. Modality in English: Theoretical, descriptive and typological issues. In *Modality in Modern English*. Edited by Roberta Facchinetti, Manfred Krug and Frank R. Palmer. Berlin: Mouton de Gruyter.

Piske, Thorsten, and Martha Young-Scholten. 2009. *Input Matters in SLA*. Bristol: Multilingual Matters.

Prévost, Philippe. 2003. On the nature of root infinitives in adult L2 French. In *Romance Linguistics: Theory and Acquisition. Selected Papers from the 32nd Linguistic Symposium on Romance Languages (LSRL)*. Edited by Ana Teresa Pérez-Leroux and Yves Roberge. Amsterdam: John Benjamins, pp. 367–84.

Prévost, Philippe, and Lydia White. 2000. Missing surface inflection or impairment in second language acquisition? Evidence from tense and agreement. *Second Language Research* 16: 103–34. [CrossRef]

Reinhart, Tanya. 2006. *Interface Strategies. Optimal and Costly Computations*. Cambridge: MIT Press.

Salaberry, Rafael, and Dalila Ayoun. 2005. The development of L2 tense/aspect in the Romance languages. In *Tense and Aspect in Romance Languages: Theoretical and Applied Perspectives*. Edited by Dalila Ayoun and Rafael Salaberry. Amsterdam: John Benjamins, pp. 1–34.

Smith, Carlota. 1991. *The Parameter of Aspect*. Dordrecht: Kluwer.

Smith, Carlota. 1997. *The Parameter of Aspect*, 2nd ed. Kluwer: Dordrecht.

Sorace, Antonella. 2000. Syntactic optionality in non-native grammars. *Second Language Research* 16: 93–102. [CrossRef]

Sorace, Antonella. 2003. Ultimate L2 attainment. In *Handbook of Second Language Acquisition*. Edited by Michael Long and Cathy Doughty. Oxford: Blackwell, pp. 130–51.

Sorace, Antonella. 2005. Selective optionality in language development. In *Syntax and variation. Reconciling the Biological and the Social*. Edited by Leonie Cornips and Karen P. Corrigan. Amsterdam: John Benjamins, pp. 55–80.

Sorace, Antonella. 2011. Pinning down the concept of interface in bilingualism. *Linguistic Approaches to Bilingualism* 1: 1–33. [CrossRef]

Sorace, Antonella, and Francesca Filiaci. 2006. Anaphora resolution in near-native speakers of Italian. *Second Language Research* 22: 339–68. [CrossRef]

Sorace, Antonella, and Ludovica Serratrice. 2009. Internal and external interfaces in bilingual development: Beyond structural overlap. *Bilingualism* 73: 89–134. [CrossRef]

Spada, Nina. 1997. Form-focused instruction and second language acquisition: A review of classroom and laboratory research. *Language Teaching* 29: 1–25.

Tsimpli, Ianthi, and Antonella Sorace. 2006. Differentiating interfaces: L2 performance in syntax-semantics and syntax-discourse phenomena. In *Proceedings of the 30th Annual Boston University Conference on Language Development, BUCLD 30*. Edited by David Bamman, Tatiana Magnitskaia and Colleen Zaller. Somerville: Cascadilla Press, pp. 653–64.

van Osch, Brechje, Aafke Hulk, Petra Sleeman, and Suzanne Aalberse. 2017. Knowledge of mood in internal and external interface contexts in Spanish heritage speakers in the Netherlands. In *Multidisciplinary Approaches to Bilingualism in the Hispanic and Lusophone World*. Edited by Kate Bellamy, Michael W. Child, Paz González, Antje Muntendam and M. Carmen Parafit Couto. Amterdam: John Benjamins, pp. 67–92.

Vendler, Zeno. 1967. Verbs and times. In *Linguistics and Philosophy*. Edited by Zeno Vendler. Ithaca: Cornell University Press, pp. 97–121, reprinted in *Philosophical Review* **1957**, *66*, 143–160.

Yang, Yingli, and Roy Lyster. 2010. Effects of form-focused practice and feedback on Chinese EFF learners' acquisition of regular and irregular past tense forms. *Studies in Second Language Acquisition* 32: 235–63. [CrossRef]

Article

Future or Movement? The L2 Acquisition of *Aller* + V Forms

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Abstract: This study aims to advance the understanding of the impact of the discursive context in the form-function mappings of *aller* + V forms by native speakers (NSs) and learners of French (NNSs), and to further knowledge about the developmental patterns of use of such forms at three proficiency levels (lower intermediate, upper intermediate, and advanced). While *aller* + V is often referred to as a periphrastic future form, i.e., a way to express temporal reference, it also takes a range of diverse semantic values (including spatial, aspectual, and modal values), and discursive functions. We therefore set out to examine data from a cross-sectional oral narrative and a longitudinal semi-guided interview task to find out to what extent *aller* + V forms are used by NSs and NNSs in a study abroad context. Our main results show that at lower intermediate level, spatial values dominate, while temporal and modal values emerge at upper intermediate and advanced levels. As regards the discursive functions of *aller* + V, learners make context appropriate choices (among others, narrative function in oral narratives, and stance-marking in interviews), but even at advanced level, their range of semantic values and discursive functions is more restricted than native speakers'.

Keywords: *aller* + V; SLA; spatial reference; tense; aspect; modality; discursive function

1. Introduction

According to Athanasopoulos et al. (2017), time and space are fundamental and inextricably linked concepts for human cognition. As a clear instance of the spatio-temporal metaphor, we examine the use of *aller* + V forms in the oral production of native speakers of French and English L2 learners of French. Studies on the acquisition of the future have shown a limited use of this periphrastic form, particularly at lower proficiency level (Ayoun 2014; Bartning and Schlyter 2004; Edmonds and Gudmestad 2015; Michot and Pierrard 2017) and in an instructed context (Howard 2012). Their use seems to develop with L2 proficiency, especially in an immersion context, as a result of exposure to French native input.

While most studies refer to *aller* + V forms as instances of periphrastic future, it is not always clear to what extent they encode spatial information (*il va chercher l'échelle*) or temporal information (*il va essayer de donner la main à sa maîtresse*) (see Bres and Labeau 2013; Michot and Pierrard 2017). Michot and Pierrard (2017) indeed observe that while French natives mostly use *aller* + V forms with a temporal or aspectual meaning in an oral narrative task, learners do so mostly to express motion. However, there is little information regarding learners' use of these forms in other discursive contexts, a gap we wish to address through an analysis of *aller* + V forms in an oral narrative and a semi-guided interview.

With such a polysemic form, L2 learners of French face a challenging task of performing the right form-to-function mapping, i.e., identifying which semantic value is relevant in a given discursive context. We therefore wish to examine the use of *aller* + V forms by French native speakers and learners at three different proficiency levels, in a study abroad context, to find out to what extent discursive genre influences the use of *aller* + V forms in French L1/L2. We examine data from a cross-sectional oral narrative and a longitudinal semi-guided interview task to find out to what extent *aller* + V forms are used with temporal vs. motion meaning, and with which discursive function.

We begin with a literature review on *aller* + V and its L2 acquisition, before presenting our two corpus studies.

2. *Aller* + V: Future or Spatial Description?

Aller is one of the most frequent French verbs. Just as its English counterpart *go*, it expresses motion, without specifying the manner of the movement, nor its beginning and endpoint, and cannot be used on its own, as illustrated in (1a) and (1b):

1. a. *Je vais.
      "I go."[1]
   b. Je vais à Paris.
      "I go to Paris."

Just like *go*, it is also used as an auxiliary form in a verbal periphrasis: *aller* + V is often presented as an equivalent of *be going to*, in which *aller* and *go* do not denote a movement but are used to build aspectual and/or temporal meaning, such as future reference, in an abstract movement (Ayoun 2014; Larreya 2005). Indeed, as shown by Bybee et al. (1994), spatial markers often undergo a process of grammaticalization during which they acquire a temporal value. Regarding *aller* + V, Bres and Labeau (2013, 2018) suggest that in its temporal, aspectual, and modal (TAM) values, *aller* retains the initial spatial value, with movement abstractly reinterpreted as a temporal shift.

2.1. An historical Account

According to (De Mulder 2008, who bases his analysis on Detges 1999), the abstract reinterpretation leading to the grammaticalization of *aller* results from a series of metonymic transformations, (a) from movement to intention, and (b) from intention to futurate value. In other words, at the cognitive level, the concepts of movement and intention are related through a metonymical process, from concrete to abstract; on a pragmatic level, speakers resort to such metonymical processes to convince their interlocutor that their intentions will result in actions located in the future. De Mulder proposes that the grammaticalization of *aller* + V is motivated by the cognitive architecture of the speakers, who tend to use metonymy to denote abstract meanings based on referents with a concrete meaning; the pragmatic use of context and ease of processing, coupled with frequency effects in the input, also explain the gradual specialization of *aller* + V into an intention marker, and then a temporal marker. It is nevertheless interesting to observe that in contemporary French, these different values still continue to co-exist, which suggests that the grammaticalization process of *aller* + V has not been fully achieved yet (see also Bres and Labeau 2013, 2018).

According to Giacalone Giacalone Ramat (1992) and Ellis (2008), the cognitive mechanisms underlying the grammaticalization process also explain the interlanguage development observed in second language speakers. Following this approach, we expect lower-level learners to use *aller* + V with spatial meaning and upper proficiency level learners to use predominantly temporal and aspectual values.

2.2. Functional Descriptions of Aller + V in Contemporary French

Based on a corpus of written (literary, journalistic, and Internet) and oral conversational sources spanning the last three centuries, Bres and Labeau (2013, 2018) provide a description of the many temporal, aspectual and modal values *aller* + V can take. In addition to spatial values, we are going to explore the values referred to by Bres and Labeau (2013) as imminence, illustrative, and modal ("*modalisation du dire*"), as they roughly correspond to those that can be expected in oral narratives and conversational data.

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[1] An anonymous reviewer outlined that "I go" might be sometimes be acceptable in English, as in "I'm going (now)". This would be translated in French by *Je m'en vais*.

2.2.1. Spatial Values

According to Vandeloise (2007) analysis of certain uses of *aller* + V, *aller* keeps its spatial meaning in examples such as (2), when the subject changes location at the moment of utterance, and if the subject accomplishes the described action in the targeted location (here, if Sophie actually eats in a restaurant).

2. Sophie va manger (au restaurant).
   "Sophie goes to eat (at the restaurant)"

Of course, it is often difficult to draw the line between those occurrences and those in which *aller* + V has a temporal meaning, which makes the task of learners particularly difficult. There is in particular very little information in the literature on the frequency of use of spatial vs. temporal and modal values of *aller* + V.

2.2.2. Temporal/Aspectual Values

Temporal values are more frequently identified in the literature, as *aller* + V is often considered as a competitor for the inflectional future. It is sometimes called periphrastic future, and traditional grammars associate it with proximal future, as in (3) where the temporal adverbial *l'année prochaine* "next year" triggers a futurate interpretation of *vais faire*.

3. Ça me donne un petit goût à ce que je vais faire l'année prochaine. (FrL2 PT, 120)
   "It gives me a little taste of what I'm going to do next year."

In addition to this temporal value, Bres and Labeau (2013) identify the value of imminence, which can also be interpreted as an aspectual value, where *aller* + V can be replaced by *être sur le point de* "be about to" and whereby it refers to the phase of the situation which immediately precedes its realization. It is illustrated in (4), where *aller* + V is used to refer to a situation whose duration is about to reach seven months. Of course, temporal proximity is a relative concept, and while it is a matter of days in (4), it could be a matter of months in another context.

4. et enfin ça va faire sept mois. (FrL2 V3, 128)
   "and finally it is about to be seven months."

We will now turn to a description of modal values.

2.2.3. Modal Values

Bres and Labeau (2013) identify what they call an illustrative value of *aller* + V, which describes what a protagonist will typically do under given circumstances, as in (5):

5. Les gens ils sont super sympathiques au premier abord ils vont vraiment discuter correctement avec quelqu'un. (FrL1, 137)
   "People they are super nice at first they will really talk with someone in a correct way."

Another frequently expressed modal value is intention, as in (6) where the speaker indicates her objective to manage to think in English at the end of her study abroad period:

6. Déjà je veux progresser au niveau de la langue euh je vais réussir à penser en anglais. (FrL1, 138)
   "To start with I want to progress as regards language ehm I'm going to manage to think in English."

Finally, (7) illustrates the prediction value that *aller* + V can take, particularly when embedded in an epistemic stance matrix clause such as *je pense que* "I think that."

7. Mais la difficulté principale je pense que ça va être de partir. (FrL1, 135)
   "But the main difficulty I think that it's going to be to leave."

The examples (2) to (7) show to what extent the values of intention, prediction and future reference are in a continuum. Context is key for the interpretation of *aller* + V, with cues such as type of discourse (narrative vs. conversation), presence or absence of verbs of epistemic stance (*je pense*) or modals (*vouloir*) or as central components in the semantic analysis of the periphrasis. It is interesting to note that the modal values of prediction and intention and the temporal value of future time reference are also ascribed to "be going to" in English, particularly in conversations (Biber et al. 2002, pp. 175–78). Regarding modal values, Biber and al. also note that the intention meaning is the most frequent.

Finally, Lansari (2009), and more recently Abouda and Skrovec (2014) and Bres and Labeau (2018) identify a frequent collocation of *aller* with *dire* "say". Abouda and Skrovec (2014), in a micro-diachronic corpus-based study, observe that in contemporary French, this collocation has considerably increased over the last five decades, almost exclusively with the verb *dire*. They base their analysis on a subcorpus of the ESLO (Enquêtes Sociolinguistiques à Orléans) database, which comprises a first dataset (ESLO1) collected between 1968 and 1971, and a second dataset, which started being collected in 2008. Their subcorpus includes interviews and interactional data (recorded during conferences and meals) from 30 participants for each collection round. The authors analyze this expression as a discursive marker used by the speaker to mark a distance relative to the content of the proposition, therefore signalling that they do not deem the chosen formulation as completely satisfying, as illustrated in (8). The possibility to replace *on va dire* by *disons* confirms its status as a modal discursive marker. With this value, no futurate interpretation is identifiable.

8. Donc j'étais un petit peu en galère de stage on va dire. (FrL1, 139)
   "So I was a little stranded as regards my internship I would say."

To sum up, in contemporary French *aller* + V mostly expresses temporal/aspectual values such as imminence, as well as modal values, such as intention or prediction, and can even be used as a modal discourse marker when combined with *dire*, although spatial values are still found.

3. Second Language Acquisition of *Aller* + V

Although there is relatively scarce research on the second language acquisition of modal forms, the SLA field has recently seen a surge of interest in the expression of futurity, particularly in L2 French (see Ayoun 2014; Gudmestad et al. 2020; Howard and Leclercq 2017 for a recent panorama). Authors usually identify three main ways of referring to the future in L2 French: inflectional future (IF), present indicative (PI) and periphrastic future (PF). Therefore, the acquisition of the temporal value of *aller* + V has been studied extensively, from a variety of theoretical perspectives.

At lower proficiency level, learners have been found to make a limited use of these periphrastic forms (Ayoun 2014; Bartning and Schlyter 2004; Edmonds and Gudmestad 2015; Howard 2012; Michot and Pierrard 2017). Their use seems to develop with L2 proficiency, especially in an immersion context, as a result of exposure to French native input. While an exhaustive account of these studies is beyond the scope of this paper, we will detail the results of two studies that resonate with our own research questions: (Michot and Pierrard 2017 and Gudmestad et al. 2020).

Using a functional and developmental perspective, Michot and Pierrard (2017) describe the second language acquisition of *aller* + V forms in an instructed context by 87 Dutch-speaking teenagers at different stages of French instruction (1st year, A1–A2, 3rd year, A2–B1, 6th year, B1–B2) in an oral narrative task ("Frog Story"), while also providing a description of what 30 French teenagers (in 1st and 6th year) produce in the same experimental conditions. Their results indicate that the older native speakers use movement at approximately the same rates as learners, but use aspect proportionally less frequently, in favor of temporal and modal usages, which are only found in learners' productions at B2 level. They also observe that the use of *aller* + V forms and the variety of semantic values increases with proficiency level, with an extension of functions at B2 level. In their

conclusion, the authors attribute the scarcity of temporal values, and the relative frequency of spatial value to the task itself, which they call "narrative-descriptive" (pp. 343–44).

In their 2020 study on the use of futurate forms in 10 unguided conversations between a near-native speaker and a native speaker of French, in an immersion context, and taking a variationist perspective, (Gudmestad et al. 2020) found that both NS and NNSs used the periphrastic future more often than the inflectional future or the present indicative. NNSs frequently used PI in association with a temporal adverbial; and topic seriousness was identified as a variable triggering the use of inflectional future, especially among NNSs. Their results seem to indicate that "these NNSs are sensitive to style and characteristics of discourse, more so than linguistic factors" (the other linguistic factors under consideration are polarity and temporal distance, but they did not impact NNSs' use of future-time verb forms).

To sum up, second language acquisition research on *aller* + V suggests that

1. *Aller* + V is used by lower-level learners to express motion, while temporal and modal values are rare among the oral productions of NNSs, even at B2 level.
2. Learners are sensitive to the characteristics of discourse (narrative/descriptive, but also, the degree of formality) and contextual cues (e.g., the inclusion of temporal adverbials).

We wish to put those results to the test by analyzing the use of *aller* + V forms by French native speakers and L2 learners in two types of discourse (oral narrative discourse and oral conversation), in a study abroad context, to determine (a) what are the preferred patterns of use by native speakers in those tasks (control groups), and (b) whether learners are sensitive to the type of discourse at different stages of acquisition. In doing so, we will offer complementary findings to contribute to the current discussion in SLA on the impact of the discursive context on form-functions mappings.

4. Study 1: Oral Narrative Task

In our first study, we wish to analyze the impact of the proficiency level variable in the use of *aller* + V forms in a narrative task. We used an oral narrative task and a cross-sectional design, to try to retrace the development of *aller* + V forms in the speech of French natives and English learners of French in a study abroad context.

4.1. Methodology

For this analysis, we used data from an oral retelling task, elicited by the Reksio stimulus (Watorek 2004), a five-minute long cartoon with background music but no speech, featuring a little dog and his master. The story is set in winter, and the two characters embark on an ice-skating activity on a frozen lake. Unfortunately, the ice breaks, and the little boy escapes drowning thanks to the help of the little dog. Although this task is not specifically designed to elicit spatial reference, it contains three major locations (the dog's house in the boy's courtyard, the frozen lake, and the boy's house), and the narratives, structured along a temporal framework, also have to include reference to the changes in location while the story unfolds. This stimulus therefore seems appropriate to check whether Michot and Pierrard (2017) results are confirmed with a group of English learners of French. In particular, we wish to check their claim that (1) temporal and modal values are mostly used by French natives while learners rather use *aller* + V for spatial and aspectual reference, and (2) that the use of *aller* + V forms increases in frequency and range of values with proficiency.

In our study, 10 French native speakers and 30 English learners of French (10 lower intermediate (LI), 10 upper intermediate (UI), 10 advanced (A)) completed the task. All participants were recorded in a French university setting, and learners were recorded during a study or residence abroad period. They came from a variety of Anglophone countries (UK, US, Ireland, Australia, and Canada). Their length of stay at the moment of recording was variable, ranging from a few weeks for newly arrived lower intermediate learners, to up to 5 years in France for the most advanced participants. All learners had

received previous formal instruction in French (ranging from a few months to over 10 years) before coming to study on a French campus. They were administered a biographical questionnaire, yielding information on their language learning history, and their proficiency was assessed with an in-house test from the American University of Paris tapping into lexical and morphosyntactic knowledge. While this is not a standardized test, it yielded results that were considered by the team of investigators as consistent with production data.

4.2. Results

As shown in Table 1, native speakers' productions are generally longer than learners' (although there is quite a lot of variation in length, as illustrated by the standard deviation and range figures). LI productions are much shorter than UI and A productions; surprisingly, UI narratives are slightly longer than advanced learners' (however A learners were judged by the investigators as more accurate from a lexical, grammatical, and phonological viewpoint).

Table 1. Description of participants and characteristics of productions.

Group	N	Mean Age	Gender	Proficiency Test Scores [2] (out of 60)	Length of Productions (Number of Utterances [2])
LI NNSs	10	22.8	2M, 8F	M 29.6 SD 3.8 Range 27–36	M 30.2 SD 14.5 Range 14–55
UI NNSs	10	23.7	1M, 9F	M 46.9 SD 2.2 Range 41–50	M 54.4 SD 26 Range 30–69
Adv NNSs	10	28.5	4M, 6F	M 55.7 SD 2.3 Range 52–58	M 43.6 SD 14.7 Range 82–169
FRENCH NSs	10	30.3 [1]	6M, 4F	/	M 85.7 SD 47.1 Range 20–180

[1] The mean age for native speakers of French was calculated based on 9 participants as a participant refused to answer this question. [2] We segmented the data following the principle that an utterance includes only 1 verb (except when modal auxiliaries or verbal periphrasis are involved).

We identified 87 *aller* + V forms in our database, see Table 2 for distribution. We excluded from our analysis all *aller* + SN occurrences from our analysis (as in (1a)), as well as other idioms including *aller* as in *ça va* "I'm fine" or *il va bien* "he's fine", to focus solely on instances of *aller* + V). Those occurrences were coded according to their semantic value (spatial, or TAM). TAM occurrences were subdivided into the following semantic values: future expression, intention, prediction—see examples (9) to (14)). We will now analyze our data quantitatively to find out whether our learners follow the same developmental pattern as the Dutch learners of French in Michot and Pierrard (2017).

Table 2. Distribution of *aller* + V forms in Reksio database.

	FrL2 LI n = 10	FrL2 UI n = 10	FrL2 A n = 10	FrL1 n = 10
# *aller* + V/#total utterances	3/302	14/544	21/436	49/857
% of *aller* + V	0.99%	2.57%	4.82%	5.71%
Range	1–1	1–3	2–6	2–16
SD	0.48	1.07	1.66	4.65

In line with the findings of Michot and Pierrard (2017), Table 2 shows that native speakers use *aller* + V forms more frequently than learners of French in an oral narrative context, and that these forms largely emerge at upper intermediate level.

A one-way ANOVA was carried out in order to investigate the impact of group membership (i.e., the impact of belonging to the FrL2 LI, UI, A, or FrL1 groups) on the use of *aller* + V. The ANOVA showed a significant difference, $F(3, 36) = 5.96513$, $p = 0.002072$). Post-hoc comparisons using Tukey's HSD revealed a significant difference between the FrL1 (M = 4.9, SD = 4.65) and the LI learners (M = 0.3, SD = 0.48), as well as between the FrL1 and the UI learners (M = 1.4, SD = 1.07). The behavior of the A learners was not found to differ from that of the other groups (M = 2.1, SD = 1.66).

Our statistical analysis therefore points to a significant evolution in the behavior of the learners, with LI and UI learners' use of *aller* + V largely distinct from that of native speakers, while the distribution of these forms for A learners cannot be neatly distinguished from that of UI learners nor that of the native speaker pattern (remember that the length of NS productions is twice that of A learners as illustrated in Table 1).

If we look at the percentage use of *aller* + V relative to the length of productions (measured through the number of utterances, where an utterance is defined as comprising a single verb phrase), we find that there is a gradual increase in the frequency of use of *aller* + V from LI (0.99%) to UI (2.57%) and A (4.82%), the latter getting closer to the native speakers' pattern (5.71%).

4.2.1. Semantic Analysis of *Aller* + V

Let us now focus on the semantic values assigned to *aller* + V forms in the productions of learners and native speakers, summarized in Table 3.

Table 3. Distribution of spatial (S) and temporal, aspectual, and modal (TAM) values of *aller* + V among FrL1 and FrL2.

		FrL2 LI *n* = 3	FrL2 UI *n* = 14	FrL2 A *n* = 21	FrL1 *n* = 49
S	#	3	12	15	3775.5
	%	100	85.7	71.5	75.5
TAM	#	-	2	6	12
	%	-	14.3	28.5	24.5

By and large, spatial values largely dominate as they constitute 77% of the total of the whole database (LI: 100%, UI: 85.7%, A: 71.5%, FrL1 75.5%) against 23% for TAM values (LI: 0%, UI: 14.3%, A: 19%, FrL1: 24.5%).

If we look at the learner data, we observe that at LI levels, only three occurrences are found, all with spatial values. TAM values appear at UI level (two occurrences of prediction) and are still rare at A level (six occurrences, expressing temporal (future/intention, n = 4), or aspectual (n = 2) reference). We now turn to a qualitative analysis of spatial and TAM values.

4.2.2. Spatial Values

In (9), *va* is followed by a telic action verb (*chercher* "look for"), and by an object: *l'échelle* "a ladder", which constitutes the endpoint of the action. In this example, *va* clearly expresses the dog's movement to go and fetch a ladder located against a tree on the lakeside, as observed in the cartoon.

9. Donc il [le chien] va chercher l'échelle. (FrL1, F03) "So he [the dog] goes look for a ladder."

4.2.3. TAM Values

In (10) and (11), *aller* + V is used to describe the intentions of the protagonist to do some ice-skating. In (10), the temporal value seems to dominate while in (11), two aspectual phases of the ice-skating event are described: the prospective phase, in which the A learner expresses the protagonists' intention to go ice-skating, and the ongoing phase, in which he indicates through the *en train de* periphrasis that the ice-skating activity is in progress.

10. Après il [le chien] rentre au bord du lac et le garçon il va aller faire du patinage lui. (A FrL2, AEF02)
    "Then he comes back to the lakeshore and the boy he's going to go ice-skating himself."
11. Eum ben ensuite ils vont faire mm du patin à glace tous les deux donc voilà ils sont en train de faire du patin à glace tous ensemble (A FrL2, AEF06)
    "Well then they go ice-skating together so that's it they are ice-skating together."

In (12) the learner uses *aller* + V to predict, based on world knowledge, what will happen (the melting of the ice after the spreading of salt on the ground), while in (13) *aller* + V clearly contributes to narrative progression (Bres and Labeau 2013 label such use "narrative"). The speaker presents the events in the order of appearance in the movie (principle of natural order) and the use of *va* followed by telic motion verbs (*monter sur l'échelle*, *aller au centre du lac*) or an action verb (*donner la main* "give a hand") indicates that the speaker predicts the achievement of such events. However, an aspectual value could also be ascribed to those occurrences (in (13a) *va* could be replaced by another temporo-aspectual marker, *est sur le point de*, and in (13b) the adverb *progressivement* "progressively" reinforces the aspectual perspective. Finally, in (13c) *il va essayer de donner la main*, the speaker makes a prediction on what is going to happen, or on the intention of the protagonist.

12. C'est un peu de sel qui va aider le glace [à fondre] (UI FrL2, UIEF08)
    "It is a bit of salt which will help the ice [to melt]."
13. Donc en fait il (a) va monter sur l'échelle il (b) va progressivement *aller* au centre du lac et (c) il va essayer de donner la main à sa maîtresse (FrL1, F08)
    "So in fact he goes climb on the ladder he will progressively go to the center of the lake and he will try give a hand to his mistress."

As a whole, the analysis of the various values (spatial or TAM) assumed by *aller* + V in our database, suggests this periphrasis contributes to narrative progression, whether by indicating a movement from one location to another (spatial value), or by expressing aspectual (imminence) or modal (prediction, intention) values.

4.3. Discussion

To sum up, our results from Study 1 confirm the findings by Michot and Pierrard (2017) that spatial values predominate in the oral narratives of French native speakers and learners alike. They attributed this to the "narrative-descriptive" nature of the Frog Story task. However, our results, obtained through an experimental design that featured a clearly narrative task eliciting less spatial description, seem to argue against their hypothesis that the nature of the stimulus and the type of discourse elicited could have explained the dominance of spatial values. We believe that in this type of discourse, the main discursive function of *aller* + V is to signal narrative progression, whether by expressing a change of location (spatial value), the imminence of a given event, the intention of a protagonist, or by enabling the speaker to predict the realization of an event. We find it particularly difficult to tease apart the different TAM concepts as they seem to be intricately interwoven.

As regards L2 development, we observe just like native speakers, learners use *aller* + V forms for narrative progression; however, they mainly do so with spatial values at LI level, while TAM values emerge at upper intermediate level, but are still quite rare at advanced level (only six occurrences produced by four different A FrL2 learners). With such a low number of instances, it is difficult to assess whether advanced learners have acquired all the fine-grained form/function mappings for *aller* + V in their L2. We therefore carry on with another, more ecological experimental design, in the hope of finding out whether a prolonged stay abroad period in a francophone country can trigger target-like form/function mappings in the use of such forms.

5. Task 2: Semi-Guided Interview

Faced with the limitations of the Reksio narrative task, we decided to look at advanced learner data collected in an equivalent study abroad setting, but with a different discursive

task: a semi-guided interview. Our aim was to compare the use of *aller* + V in those two discursive contexts. Semi-guided interviews provide interactional data that is more "ecological" and less constrained than the data elicited through a film-retelling task (Benazzo and Leclercq forthcoming). Moreover, the Reksio experimental design is cross-sectional, which permits developmental interpretations, but is not as refined as a longitudinal design, where learners are followed over a certain period of time. We therefore used data from the LANGSNAP project[2], and more specifically from the semi-guided interview task.

5.1. Methodology

LANGSNAP is a longitudinal study that was conducted over a 21 months period. It included 27 Anglophone learners of French, who studied languages in British universities, had been learning French for at least eight years at the time of the first recording, and who took part in a study-abroad period (whether as a language teaching assistant, as an Erasmus+ student, or as an intern in a company) in a French-speaking country as part of their BA curriculum; and 10 native speakers of French (all exchange students in British universities). No proficiency test was administered to the learner participants.

The native speaker participants were recorded once, in a study abroad context, while learner participants were recorded on six occasions, once before, three times during and twice after their nine-month stay abroad period. In this study, we will focus on the pre-departure (PT) data, and the Visit Abroad 3 (V3) data (the last on-site data collection round). The interviews were collected by members of the LANGSNAP research team and transcribed with CLAN (MacWhinney 2000). We excluded their interventions from our data analysis to focus on the utterances produced by the target participants[3]. Table 4 provides an overview of the database.

Table 4. Characteristics of FrL1 and FrL2 participants and their productions.

Group	N	Mean Age	Gender	Nb of Years of FrL2 Instruction	Length of Productions (Number of Tokens)
Pre-test FrL2	27	19.8	3M, 24F	M = 10.4 years SD = 2.43 Range 8–16	M = 1321.51 SD = 501.94 Range = 679–2895
V3 FrL2	27	20.8	3M, 24F	+6 months abroad	M = 1317.25 SD = 655.30 Range = 600–3398
FRENCH NSs	10	19.8	3M, 7F	Recorded on their arrival in the UK	M = 1491.7 SD = 515.83 Range 779–2581

Length of production was calculated through the freq command of CLAN, which yielded the number of tokens per participant in each interview. The mean length of learner data is nearly the same at PT (M = 1321.51) and V3 (M = 1317.25), but SD and R figures show increased variation. We identified a total of 331 occurrences of *aller* + V, with the following distribution:

- FrL1: 63 occurrences
- FrL2: 268 occurrences, including 149 at PT and 119 at V3.

Occurrences were coded using the same scheme as previously described for the Reksio analysis: S for spatial values, T for TAM values. We then coded TAM instances for temporal (future), aspectual and modal (illustrative, intention, prediction, and discourse marker) values.

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2   LANGSNAP ("Social networks, target language interaction, and second language acquisition during the year abroad: A longitudinal study") http://langsnap.soton.ac.uk/tasks.html (Supplementary Materials).

3   Biographical information regarding participants (learners and native speakers of French) is available on the online browsable LANGSNAP repository http://langsnap.soton.ac.uk/theL2FrenchParticipants.html.

5.2. Results

Our first results, presented in Table 5, highlight the very low percentage of occurrences of *aller* + V forms in the database, especially in the learner data, and the large dominance of TAM values (FrL1 76.2%; FrL2 PT 91.28%; FrL2 V3 82.4%) over spatial values.

Table 5. Number and percentage of occurrences in interview data.

			S		TAM	
	# *ALLER* + V	**% *ALLER* + V Tokens/Total nb of Tokens)**	**#**	**%**	**#**	**%**
FrL1	63	0.42	15	23.8	48	76.2
FrL2	268		33	12.31	235	87.69
PT	149	0.11	13	8.72	136	91.28
V3	119	0.09	21	17.6	98	82.4
Total	331					

A one-way ANOVA was carried out to determine if there is a significative difference between pre-test, V3, and FrNS. However, no significant between-groups difference was identified.

While French natives use future, prediction, and modal marker values in a balanced way, as shown in Figure 1, they almost never use *aller* + V to express intention, contrary to learners. Finally, we found four occurrences of the illustrative value (see (20) below).
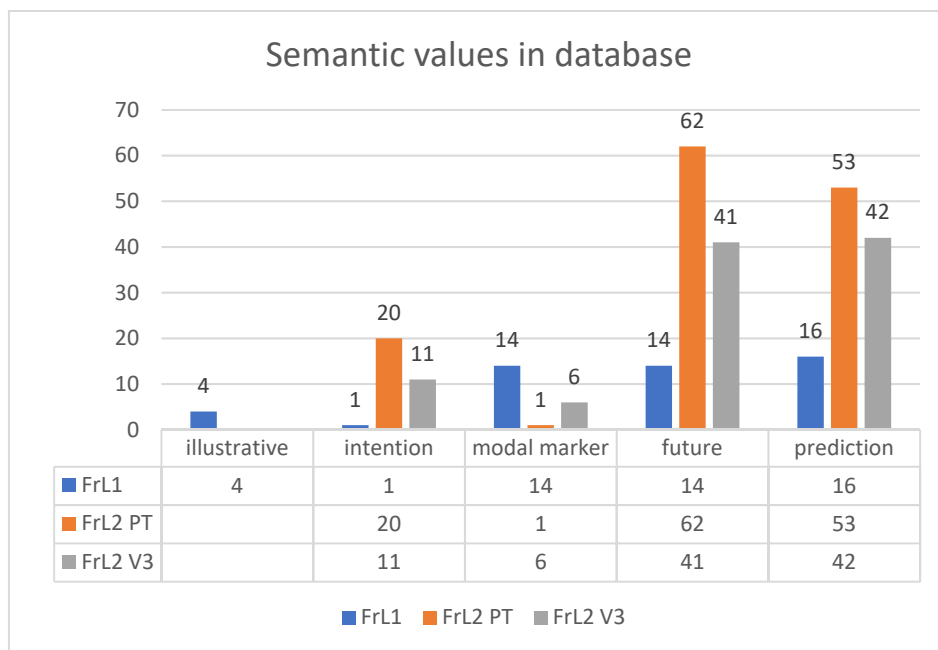

Figure 1. Semantic values in LANGSNAP database.

As for learners, they mostly use *aller* + V with temporal (future) and modal (prediction, intention) values. We found a few occurrences (FrL2 PT:1; FrL2V3: 4) of *aller* + V as a modal marker (*on va dire*) and none of illustrative value.

Due to the nature of the task, most of the *aller* + V occurrences were in the first person (except for a few impersonal *ça va* + V) and occurred in embedded complement clauses introduced by matrix clauses with an epistemic stance verbal marker (mainly *je pense* "I think", *j'espère* "I hope", *je sais/je ne sais pas* "I know/don't know", *je crois* "I believe").

No occurrences of the subjunctive were found in the learner data, even with triggers such as *je ne pense pas que* which should be followed by a verb in the subjunctive form. This is in line with previous findings (among others, McManus et al. 2014; Leclercq and Edmonds 2017).

It is interesting to note that native speakers use those triggers much less frequently than learners in the same type of discursive context. Learners do not always use target-like forms (**Espoir que* "hope that" rather than *j'espère que* "I hope that") but we coded non-target-like occurrences according to their semantic value in context. We now present examples of the different TAM semantic values found in the database to analyze their discursive function.

5.2.1. TAM Values—Future

We grouped in this category instances of what is traditionally referred to as the periphrastic future. In these instances, the speaker uses *aller* + V to assert that an event is going to take place at some point in the future, as exemplified in (14). With futurate values, *aller* + V is mostly found in matrix clauses (15), or in embedded clauses introduced by verbs expressing various degrees of certainty (*je sais*, *je pense*) or irrealis (*j'espère*, *j'imagine*).

14. J'espère que je vais progresser en anglais. (FrL1, 133)
    "I hope I will progress in English."
15. Euh mais je vais aller à City avec ma mère à la fin de août. (FrL2 PT, 109)
    "Er but I'm going to City with my mother at the end of August."

5.2.2. TAM Values—Prediction

This category includes occurrences in which *aller* + V is used by the speaker to predict a given state of affairs, mostly through impersonal forms (*ça va* V, as in (16) or third person utterances (17)).

16. Et du coup je pense que ça va être assez difficile. (FrL1, 131)
    "And so I think that it's going to be quite difficult."
17. Mais euh et Paris va me manquer je crois parce que c'est Paris quoi. (FrL2 V3, 102)
    "But er and I'm going to miss Paris I believe because well it is Paris."

5.2.3. TAM Values—Intention

In this category, which is used only once by a French native (see (6) above), the speakers express their intention to accomplish an action (18) or that of another person, such as visiting Paris frequently (18) or working in a school (19). In such utterances, *aller* + V is often found in association with matrix verbs of cognition (18) or modal verbs expressing volition (6) or intention (19).

18. Euh alors oui je je pense que je vais visiter Paris beaucoup. (FrL2 PT, 109)
    "Er well yes I I think that I will visit Paris a lot."
19. Aussi je vais essayer de travailler avec ma maman dans une école. (FrL2 V3, 122)
    "So I will try to work with my mum in a school."

5.2.4. TAM Values—Illustrative

In (20), the speaker uses *aller* + V to illustrate what typically happens after a hypothetical situation (going to a party in France). It is interesting to note that no learner produced this type of semantic value.

20. C'est à dire que en France quand on par exemple à une soirée (. . .) on discute bien avec quelqu'un le lendemain si on croise on dit 'oh ça va ?' et on on va échanger on va continuer à se voir enfin. (FrL1, 137)
    "I mean in France when one for example at a party [. . .] you talk well with someone the next morning if you come across that person you say, 'Oh how are you?' and you speaks you go on seeing each other well."

5.2.5. TAM Values—Modal Marker

Finally, our database includes 21 occurrences of *aller* + V as a modal discursive maker (16 *on va dire* "let's say"—see (6), 1 *je vais être honnête* "I'll be honest", 3 *je vais voir*/*on va voir* "we'll see", 1 *ça va le faire* "it's gonna be OK"), through which the speaker takes a stance towards the propositional content under examination: in (6), *on va dire* is used as a hedging device, while with (21) and (22), the speaker takes a non-committal position relative to the realization of the event under consideration.

21. Euh je vais être honnête je n'ai pas n'aucune idée en ce moment (FrL2 PT, 110)
    "Er I'll be honest I have not no idea at this moment."
22. Mais bon on va voir. (FrL2 V3, 122)
    "But well we'll see."

5.3. Discussion

To sum up, our analysis of the LANGSNAP database reveals a fairly low frequency of *aller* + V forms in the data. Although FrL1 speakers seem to use a slightly higher proportion of such forms in their productions (FrL1 0.42%; FrL2PT 0.11%; FrL2V3 0.09%), no statistically significant between-group difference was identified. In particular, the six-month study abroad period between PT and V3 recordings did not seem to foster significantly different patterns of usage as regards *aller* + V. We will therefore comment on L2 (PT and V3) results as a whole. As regards the choice of TAM semantic values for *aller* + V, while FrL1 use intention, prediction, and future reference in an equivalent way, future and prediction were the learners' most frequent choice at PT and V3, immediately followed by intention. French speakers also make an occasional use of the illustrative value (four occurrences produced by two speakers) and use *on va dire* or *ça va le faire* as modal discourse markers. In short, FrL1 display a proportionally higher and semantically more diverse use of *aller* + V than learners who mostly use futurate values of intention, prediction, and future reference. It is nevertheless interesting to note that the use of modal markers by learners is on the rise at V3 (PT:1, V3:3), which suggests an increased sensitivity to such uses in the input. However, further investigation (and a different methodological approach) would be necessary to find out whether this is a chance result or not.

Another key finding is that the semantic interpretation of *aller* + V is often guided by contextual cues: triggers such as *j'espère que* entail the inscription of the content of the object clause in irrealis, hence guiding a futurate interpretation of *aller* + V. On the other hand, cues such as modal verb *je veux* facilitate an intentional reading. Generally speaking, the semi-guided interview data under consideration, wherein the interviewer questions the participant on their study abroad expectations (PT) and experiences (V3), guides the learners' responses and can explain the lower proportion of *aller* + V forms in V3 responses. Stylistically speaking, the predominance of first person (*je*) and impersonal (*ça/on*) subjects, as opposed to third person in the Reksio narrative, is also a consequence of the discursive genre under consideration.

Finally, three main discursive functions have been identified in our database: stance marker (modal values of intention and prediction, and hedging when used as a modal marker), future reference (as in (15)) and illustrative values, the latter being rather infrequent in interview data.

6. Conclusions

In this study, we wished to re-assess previous research results on the developmental patterns followed by learners at different proficiency levels as regards the use of *aller* + V. In particular, we wanted to find out (a) whether the developmental path described by Michot and Pierrard (2017) for teenage Dutch learners of French, with spatial and aspectual uses dominant in the earlier stages and a timid apparition of temporal and modal values at advanced stages, was valid with a population of adult Anglophone learners of French; and (b) whether learners were sensitive to discourse characteristics in their choice of semantic values and discursive functions for *aller* + V.

To answer these questions, we used data from an oral narrative task and a semi-guided interview task. Both datasets included control groups of native speaker participants, and learner participants were all recorded during a study abroad experience. The Reksio experimental design is cross-sectional, and the LANGSNAP database is longitudinal, which makes them suitable for the tracking of interlanguage development. We therefore set out to determine (a) L1 speakers' preferred patterns of use for *aller* + V, in relation with the type of task; and (b) to find out whether learners were sensitive to the mapping of semantic values onto specific discourse functions, at different stages of acquisition.

Our results show that in both tasks, FrL1 speakers display a higher proportion of *aller* + V forms altogether, and use a larger range of semantic values, than learner participants. In the oral narrative task, spatial values dominate, but they serve the purpose of moving the narrative forward, just like aspectual values and modal values of intention and prediction. *Aller* + V forms are usually found in the third person, to describe the actions of the protagonist of the story. In the semi-guided interview task, FrL1 speakers use predominantly TAM values (76.2%, against 23.8% for spatial values), mainly the periphrastic future and stance-taking means (expression of prediction and hedging through modal markers). They also use occasionally the illustrative value described in Bres and Labeau (2013), but they almost never express intention with *aller* + V. Most occurrences are in the first person, or impersonal (*ça va*), and many instances of *aller* + V appear in association with verbal markers of epistemic stance. The main discursive functions identified are future reference (with the so-called periphrastic future), epistemic stance marking (through prediction, intention, and hedging), and illustrative function (presenting typical behaviors). No specifically aspectual value was identified in our LANGSNAP database. From a typological perspective, our results confirm that the grammaticalization of *aller* + V is far from achieved, as in the productions of French natives it is found with a large variety of semantic values.

As for learners, they roughly behave like native speakers as regards the mapping of *aller* + V forms onto the two different kinds of discourse under consideration: they use those forms for narrative progression in the Reksio task and mark future reference and epistemic stance marking in the interviews. However, they mostly mark narrative progression with the spatial values of *aller* + V, with only a few TAM forms at UI and A levels; and in the interview data, advanced learners stick to the futurate semantic values of intention, prediction (epistemic stance-marking) and future reference, a choice that might reveal a crosslinguistic transfer effect (as intention, prediction and future reference are the most frequent values of the equivalent English expression "be going to"). Learners do not use those forms for hedging or with an illustrative function. In short, from a developmental perspective, our results converge with previous research in showing that spatial values emerge before TAM values, and that even at advanced level, the range of semantic values and discursive functions attributed to *aller* + V forms is more restricted than that of native speakers. In other words, the developmental pattern followed by learners seems to match the diachronic grammaticalization pattern described in the literature (from spatial values to TAM values). However, our results indicate that even at advanced level, learners do not always adopt the same form-function mappings as native speakers, maybe because of crosslinguistic transfer from their L1. Finally, we are well aware of the limitations of this study and believe that a phraseological approach would be interesting to find out whether native speakers' and learners' choices of collocations differ (i.e., which verbs are often found after *aller*), and to what extent learners are sensitive to frequency patterns in the input. Such issues, namely, transfer, phraseological, and input frequency patterns constitute rich directions for future research.

Conflicts of Interest: The authors declare no conflict of interest.

References

Abouda, Lotfi, and Marie Skrovec. 2014. Du mouvement au figement: Pragmaticalisation de la forme on va dire. Etude micro-diachronique sur un corpus oral. Paper presented at Colloque International Langage et Analogie, Figement, Polysémie, Granada, Spain, September 19.

Athanasopoulos, Panos, Steven Samuel, and Emanuel Bylund. 2017. The psychological reality of spatio-temporal metaphors. In *Studies in Figurative thought and Language*. Edited by Angeliki Athanasiadou. Amsterdam: John Benjamins, pp. 295–321.

Ayoun, Dalila. 2014. The acquisition of future temporality by L2 French learners. *Journal of French Language Studies* 24: 181–202. [CrossRef]

Bartning, Inge, and Suzanne Schlyter. 2004. Itinéraires acquisitionnels et stades de développement en français L2. *Journal of French Language Studies* 14: 281–299. [CrossRef]

Benazzo, Sandra, and Pascale Leclercq. forthcoming. Méthodologie de la recherche en acquisition des langues. In *Introduction à l'acquisition des langues étrangères*. Edited by P. Leclercq, A. Edmonds and E. Sneed-German. Bruxelles: De Boeck.

Biber, Douglas, Susan Conrad, and Geoffrey Leech. 2002. *Longman Student Grammar of Spoken and Written English*. Harlow: Longman.

Bres, Jacques, and Emmanuelle Labeau. 2013. Aller et venir: Des verbes de déplacement aux auxiliaires aspectuels-temporels-modaux. *Langue française* 129: 13–28. [CrossRef]

Bres, Jacques, and Emmanuelle Labeau. 2018. Des constructions de *aller* et de *venir* grammaticalisées en auxiliaire. *Syntaxe et Sémantique* 19: 46–86.

Bybee, Joan, Revere Perkins, and William Pagliuca. 1994. *The Evolution of Grammar. Tense, Aspect, and Modality in the Languages of the World*. Chicago: The University of Chicago Press.

De Mulder, Walter. 2008. Grammaticalisation, métonymie et pertinence. In *Congrès Mondial de Linguistique Française—CMLF'08. Paris, Institut de Linguistique Française*. Edited by J. Durand, B. Habert and B. Laks. Les Ulis: EDP Sciences, pp. 359–65. [CrossRef]

Detges, Ulrich. 1999. Wie entsteht Grammatik? Kognitive und pragmatische Determinanten der Grammatikalisierung von Tempus Markern. In *Reanalyse und Grammatikalisierung in den Romanischen Sprachen*. Edited by J. Lang and I. Neumann-Holzschuh. Tübingen: Max Niemeyer Verlag, pp. 31–52. Available online: https://www.linguistiquefrancaise.org/articles/cmlf/abs/2008/01/contents/contents.html (accessed on 14 January 2021).

Edmonds, Amanda, and Aarnes Gudmestad. 2015. What the present can tell us about the future: A variationist analysis of future-time expression in native and non-native French. *Language, Interaction and Acquisition* 6: 15–41. [CrossRef]

Ellis, Nick C. 2008. The dynamics of second language emergence: Cycles of language use, language change, and language acquisition. *The Modern Language Journal* 92: 232–49. [CrossRef]

Giacalone Ramat, Anna. 1992. Grammaticalization processes in the area of temporal and modal relations. *Studies in second language acquisition* 14: 297–322. [CrossRef]

Gudmestad, Aarnes, Amanda Edmonds, Bryan Donaldson, and Katie Carmichael. 2020. Near-native sociolinguistic competence in French: Evidence from variable future-time expression. *Canadian Journal of Applied Linguistics* 23: 169–91. [CrossRef]

Howard, Martin. 2012. From tense and aspect to modality: The acquisition of future, conditional and subjunctive morphology in L2 French. A preliminary study. *Cahiers Chronos* 24: 201–23. [CrossRef]

Howard, Martin, and Pascale Leclercq. 2017. Tense, aspect and modality in a second language: An overview. In *Tense-Aspect-Modality in a Second Language. Contemporary Perspectives*. Edited by M. Howard and P. Leclercq. Amsterdam: John Benjamins Publishing Company, pp. 1–25.

Lansari, Laure. 2009. *Les Périphrases Verbales Aller + Infinitif et be Going to*. Paris: Ophrys.

Larreya, Paul. 2005. Sur les emplois de la périphrase aller + infinitif. In *Les Périphrases Verbales*. Edited by H. Bat-Zeev Shyldkrot and N. Le Querler. Amsterdam: John Benjamins, pp. 337–60. [CrossRef]

Leclercq, Pascale, and Amanda Edmonds. 2017. How L2 learners of French and English express modality using verbal means: A crosslinguistic and developmental study. *IRAL* 55: 265–82. [CrossRef]

MacWhinney, Bryan. 2000. *The CHILDES Project: Tools for Analyzing Talk*, 3rd ed. Mahwah: Lawrence Erlbaum Associates.

McManus, Kevin, Nicole Tracy-Ventura, Rosamond Mitchell, Laurence Richard, and Patricia Romero de Mills. 2014. *Measuring L2 Proficiency: Perspectives from SLA*. Edited by Pascale Leclercq, Amanda Edmonds and Heather Hilton. Bristol: Multilingual Matters, pp. 167–90.

Michot, Marie-Eve, and Michel Pierrard. 2017. French second language leaerners' acquisition of the sequence aller + infinitive: Movement, aspect and tense. *IRAL* 55: 325–45. [CrossRef]

Vandeloise, Claude. 2007. Le verbe ALLER: l'affranchissement du contexte d'énonciation immédiat. *Journal of French Language Studies* 17: 343–59. [CrossRef]

Watorek, Marzena, ed. 2004. Construction du discours par des enfants et des apprenants adultes. *Langages* 155.

"Les copains *dit au revoir": On Subject–Verb Agreement in L2 French and Cross-Linguistic Influence

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Abstract: This study focuses on the production of subject–verb (SV) agreement in number in L2 French and investigates the role of cross-linguistic influence (CLI) in this particular morphosyntactic domain. CLI is a well-known phenomenon in Second Language Acquisition (SLA) research but it has rarely been investigated systematically in relation to SV agreement in French. The participants of the study are 114 learners with Italian, German, Dutch and Swedish as L1. The source languages are all inflectional languages but they vary in terms of morphological richness in the verb paradigm, ranging from very poor (Swedish) to very rich (Italian). The participants performed an oral narrative task contrasting singular and plural contexts of SV agreement. Results indicate a significant difference between L1 groups in terms of correct SV agreement but they also show that the overall presence of rich verb morphology in the L1 does not, on its own, result in a more correct SV agreement. It is when comparing learners at two different proficiency levels that we observe differences in the rate of L2 development, which may be explained as an effect of CLI. Overall, results indicate a complex interplay of different factors, where the role of CLI must be further investigated in future studies in relation to L2 French.

Keywords: French; L2 acquisition; verb morphology; subject–verb agreement; number; transfer; cross-linguistic influence

1. Introduction

Previous literature on the acquisition[1] of spoken French has shown that subject–verb (SV) agreement in number (third person singular vs. plural) is a difficult morphosyntactic phenomenon for L2 learners (Bartning and Schlyter 2004; Howard 2006; Michot 2014; Véronique 2009, among others). Even at advanced levels, learners continue to make agreement errors such as that presented in (1).

(1)   Les copains   */di/   au revoir
      The–PL friend–PL   say–SG   goodbye
      "The friends say goodbye"

The use of singular verb forms in contexts where plural verb forms are required (e.g., /diz/ in example 1) is also observed in monolingual and bilingual children learning L1 French (Ågren and van de Weijer 2013b; Bassano et al. 2001; Kilani-Schoch 2003; Prévost

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[1]   In this study, we use the term L2 (second language) as an umbrella term when referring to the acquisition of new languages after the L1 (first language), irrespective of the chronological order in which the languages are learnt (L2, L3, L4 ...).

2009). Two factors are usually discussed that might explain these difficulties. The first factor is the complexity of the agreement system itself, involving many different agreement patterns and irregular forms. SV agreement in number is not audible in regular *-er* verbs from the first conjugation (e.g., *discuter*, "to discuss") but clearly distinguished in verbs belonging to other verb classes (see Section 3). In addition, the frequency distribution of verb forms in native speaker discourse is biased towards the singular, meaning that the singular form of the verb is always much more frequent than the equivalent plural form (Ågren and van de Weijer 2013a). This fact makes the singular verb form more salient to language learners and therefore easier to memorize and to access than the plural form. The second factor is the learners' exposure to the target language. Typically, learners who are exposed to more input will produce more correct SV agreement in number than learners who are exposed to less input (cf. young bilingual children and especially foreign language classroom L2 learners). A third factor in L2 learning, less often discussed in the literature, is cross-linguistic influence (henceforth CLI) from the learners' L1 (see, for example, Stabarin and Gerolimich 2014). However, to the best of our knowledge, the influence of the learners' L1 on their production of SV agreement in L2 French has rarely been investigated systematically, giving rise to the rationale for the focus on CLI in this paper. More precisely, in order to better understand the role of the learners' L1 in the acquisition process, we compare the production of SV agreement in number in four groups of L2 learners with different L1s, namely Dutch, German, Italian and Swedish, performing the same oral narrative task. As will be further described below, these four languages differ in their relationship to the target language in this particular morphosyntactic domain (Ringbom 2007) and they vary strongly in morphological richness (Xanthos et al. 2011). Apart from these differences in their L1, the participants of the study are all adult classroom L2 learners of French at the A2–B1 levels (European Council 2001), studying French in a university setting in their home country.

2. Briefly on Cross-Linguistic Influence (CLI)

CLI, also known as transfer or interference, is a well-known phenomenon in the Second Language Acquisition (SLA) literature[2] (Weinreich 1953; Sharwood Smith and Kellerman 1986a; Odlin 1989; Jarvis and Pavlenko 2008). In very general terms, CLI implies that the L2 learner will use prior linguistic knowledge from his or her L1, or from other previously acquired languages, when acquiring a new language. Previous knowledge of at least one other language is thereby a factor that distinguishes L2 from L1 acquisition. Initially, research on CLI focused on the influence of the L1 on the acquisition of an L2. However, in recent years, there has been a general awareness that many L2 learners have a multilingual repertoire, a fact that will influence their acquisition of a new target language. A growing body of empirical evidence shows that CLI is in fact multi-directional and that all languages known by the learner can influence each other (Aronin and Singleton 2012). Indeed, the growing interest in the study of L3 acquisition underlines that the impact of other L2s (previously acquired second languages) on the so-called L3 (the language currently being acquired) might be of great importance (see Falk and Bardel 2010 for an overview; Rothman et al. 2019 for a recent discussion). Furthermore, CLI might also work in the opposite direction since the L2 can influence the L1, the L3 can affect the L2, etc. (Jarvis and Pavlenko 2008; Tsang 2017).

In the early days of SLA research, transfer of knowledge from the L1 to the L2 was considered the key issue explaining L2 development and the errors produced in different groups of learners (Contrastive Analysis; Lado 1957). When comparing grammatical structures in the L1 with those of the L2, the assumption was that differences are difficult and similarities are easy to acquire in the L2. However, Selinker (1972) and others pointed out that L2 development, i.e., *interlanguage* development, was less straightforward

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2 In this study, we use the term *cross-linguistic influence* in order to stress the multi-directionality of this phenomenon. Compared to *transfer*, CLI is referred to as a more theory-neutral term (Sharwood Smith and Kellerman 1986b, pp. 1–2; Ellis and Shintani 2014, p. 235).

than expected from the contrastive analysis approach. Empirical evidence showed that grammatical features that were different in the L2 compared to the L1 were not necessarily difficult for L2 learners to acquire and, on the other hand, L2 learners did not always easily acquire grammatical features that were similar to those of the L1. As exemplified in Ellis and Shintani (2014, p. 236), French learners of L2 English would not make transfer errors of word order such as "I them see", even though the object pronoun is preverbal in French as opposed to English. Furthermore, French learners at beginner levels would struggle with the inverted question forms in yes/no questions in L2 English, even though French has the same word order. These and similar results spoke in favor of universal patterns in L2 development rather than of L1 transfer across the board.

Over the last few decades, the role and the effects of CLI on the production and comprehension of the L2 have been extensively discussed (Jarvis and Pavlenko 2008). Most researchers in this field agree that CLI plays a role and that its effects are evident in both classroom and naturalistic settings (Ellis and Shintani 2014). However, the importance, the limitations and the mechanisms involved in the process are still under debate (see Rothman et al. 2019). Generally, transfer effects from the L1 are considered stronger in low-proficiency learners (Hermas 2014) but the relation between CLI and proficiency is not straightforward. According to Ellis and Shintani (2014, p. 237), some transfer errors seem to appear only when learners have reached a certain proficiency threshold. They suggest that, in some respects, it is fruitful to think of the effects of CLI in terms of rate of acquisition, as the L1 might help L2 learners to overcome typical interlanguage errors faster and make them shift to more target-like structures early on. In general, CLI is considered one internal factor among others (cf. age and motivation), interacting with external factors (quantity and quality of input, teaching, etc.) and linguistic factors (regularity, saliency, frequency of linguistic structures) in shaping L2 development (a.o. Long 1990; Jarvis and Odlin 2000; DeKeyser 2005; Odlin 2005; Treffers-Daller and Sakel 2012; von Stutterheim et al. 2013; Tsang 2017; Tang et al. 2020).

The effects of CLI can be positive or negative (Odlin 1989). Positive CLI from one language to the other will facilitate and accelerate the learning of specific linguistic phenomena. On the other hand, negative CLI will slow down or hinder the acquisition process of specific structures. The identification of negative CLI is simple and straightforward since it leads to systematic errors that are easily observable in learner data. In fact, early research has mainly focused on negative CLI as a source of interference in the L2 learning process. However, Jarvis and Pavlenko (2008) claim that negative transfer only accounts for a small proportion of all transfer effects. They observe that it does not cover more subtle effects such as overgeneralizations or avoidance strategies. In addition, positive effects of CLI can indeed be more difficult to observe in learner data since they result in target-like language use. In this respect, Foote (2009) underlines that positive effects of CLI seem to increase when the languages involved are typologically similar. Typological proximity is often discussed as an important factor in the CLI literature, meaning "the distance that the linguist can objectively and formally define and identify between languages and language families" (De Angelis 2007, p. 22). This is what Ringbom and Jarvis (2009, p. 107) refer to as *actual similarities* between languages. Put simply, two typologically related languages—for example, French and Italian—are more likely to influence each other than two languages that are typologically distant—for instance, French and Mandarin Chinese. The importance of the typological factor is, for instance, discussed in detail by Rothman (2011) in relation to his Typological Primacy Model (TPM) in L3 acquisition. A closely related phenomenon put forward by Kellerman (1983) is psychotypology, namely the similarities and differences among languages as perceived by learners. Ringbom and Jarvis (2009, p. 107) refer to this phenomenon as *assumed similarities* and they claim that this kind of similarity has the strongest and most direct impact on language learning and performance. They underline that while actual similarities are constant over time, assumed similarities change with learners' increasing experience with the target language. However, according to Rothman

(2011, p. 112), psychotypological and actual typological similarities are in many cases the same, as revealed in his study of the L2 and L3 acquisition of different Romance languages.

In relation to typological and psychotypological proximity, it is interesting to consider Ringbom (2007) suggestion that there are three different types of relationships between source and target languages concerning specific linguistic structures (see also Ringbom and Jarvis 2009). First, there might be a *similarity relation* involving a one-to-one relation between form and function in the two languages (for instance, the same morpheme is used to express agreement in both languages). Full-scale cross-linguistic similarity in both form and function is, according to Ringbom and Jarvis, a rare phenomenon. Second, a *contrast relation* involves an underlying similarity in function alone (e.g., SV agreement exists in both languages but is realized differently). Finally, in a (near) *zero relation*, there is an absence of similarity in both function and form between the languages involved or a very abstract relation that a typical learner will not be able to grasp. In our study of SV agreement in L2 French, we will compare groups of learners with typologically different SV agreement systems in their source languages in order to study the effects of both positive and negative CLI. From a linguistic point of view (i.e., actual similarity), we note that three of the source languages in our study have contrast relations to French as far as SV agreement is concerned, even though they differ from each other in terms of morphological richness (Dutch, German and Italian). One of them has a zero relation to French in this respect (Swedish). The different relationships between source and target languages will be further described in Section 3.

3. Subject–Verb Agreement in Number

In this section, we briefly introduce the SV agreement system of spoken French, followed by a description and a comparison of the L1s involved in the study. Based on this description, we formulate hypotheses for the possible influence of the different L1s on the production of SV agreement in L2 French.

3.1. Subject–Verb Agreement in Number in Spoken French

Like many other languages, French encodes a distinction between singular and plural reference. This distinction results in grammatical number agreement. However, compared to written French, where plural verb forms are orthographically clearly distinct from singular ones, SV agreement in number in spoken French is best described as partial and heterogeneous. As underlined by Dubois (1967), the study of number agreement in the verb phrase (VP) should concentrate on the third person, since this is the most frequent and unambiguous number alternation in French[3]. In spoken French, this agreement is expressed by an alternation of the verb stem. This singular vs. plural alternation is involved in less than 12% of French verbs, since verbs from the first conjugation (*-er* verbs) are invariable in number, as exemplified in (2) and (3) below (see New et al. 2004, based on the corpus Lexique, New and Pallier 2020).

(2)	Le copain	/paʁl/	français
	The-SG friend-SG	speak-SG	French
	"The friend speaks French"		
(3)	Les copains	/paʁl/	français
	The-PL friend-PL	speak-PL	French
	"The friends speak French"		

Thus, in the present tense, only a small proportion of French verbs have a distinct verb stem in the plural as compared to the singular. However, verbs with an audible stem alternation in number are still essential to the use of spoken French, since they belong to

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3   According to Dubois (1967, p. 35), first and second person plural (*nous* "we" and *vous* "you") should not be considered as the plural equivalents of first and second person singular (*je* "I" and *tu* "you") but as different persons (see Fayol 2003). In addition, in colloquial French, first person plural (*nous*) is often replaced by third person singular (*on*), and second person plural (*vous*) is used in both singular (politeness) and plural contexts.

the most frequent verbs. According to the Gougenheim et al. corpus[4] (1964), the eleven most frequent verbs in French belong to this category (*être* "to be", *avoir* "to have", *faire* "to do", *dire* "to say", *pouvoir* "to be able to", *aller* "to go", *voir* "to see/understand", *savoir* "to know", *vouloir* "to want", *venir* "to come", *devoir* "to have to"). In addition, among the 50 most frequently used verbs in French, 29 involve an audible SV agreement in number, as exemplified in (4) and (5).

(4)	Le copain	/di/	bonjour
	The-SG friend-SG	say-SG	hello
	"The friend says hello"		
(5)	Les copains	/diz/	bonjour
	The-PL friend-PL	say-PL	hello
	"The friends say hello"		

In addition, the morphophonological phenomenon called *liaison* must be mentioned. In cases where a plural subject pronoun (*ils/elles* "they") meets a vowel-initial verb (*ils appellent* /ilzapɛl/ "they call"), the final *-s* of the pronoun will surface in connected speech through the liaison consonant /z/ (see Howard and Ågren 2019, for details). For this to happen, the verb must start with a vowel. The liaison consonant is never realized if the two words are pronounced in isolation or when the verb starts with a consonant (*ils parlent* /ilpaʁl/ "they speak").

In what follows, we distinguish four different types of agreement patterns in number (3rd SG vs. PL) in spoken French (following Michot 2014; Granget et al. Forthcoming).

1. The first pattern (*Vont*) includes four very frequent verbs, namely *être* "to be", *avoir* "to have", *faire* "to do" and *aller* "to go". In these verbs, the singular/plural alternation is expressed by totally (*est/sont* "is/are") or partially (*fait/font* "does/do") different morphemes, e.g., suppletive forms, with no or little connection to the base form (Prévost 2009). In this group of verbs, the singular/plural alternation is based on a vowel shift on /ɛ/ or /a/ in singular versus /õ// in plural and it does not have plural forms ending in a consonant (see below, patterns 2 and 3). These verbs are used both as lexical and auxiliary verbs (*avoir* "to have" and *être* "to be" + past participle) and modal verbs (*aller* "to go" and *faire* "to do" + infinitive), which obviously increase their frequency in both spoken and written French (see Ågren and van de Weijer 2013a).

2. The second pattern (*Vrad*) is that of verbs like *prendre* "to take" or *savoir* "to know", based on a stem alternation including a vowel shift in combination with the adjunction of a consonant in the plural (*elle sait* /ɛlsɛ/ "she knows" vs. *elles savent* /ɛlsav/ "they know"). The verb final consonant in the plural varies from verb to verb, which makes this agreement pattern very irregular in spoken French.

3. The third pattern (*Vcons*) does not include a vowel alternation in the plural. Instead, the plural is marked via the adjunction of a consonant in verb-final position, which varies from verb to verb (see, for example, the verb *dire* "to say" in examples 4 and 5, but also *finir* "to finish", *vendre* "to sell", *devoir* "to have to", etc.). In these verbs, as in pattern 2 above, the final consonant in coda position is not always clearly articulated and can indeed be difficult to perceive in the spoken input, especially when the verb is followed by a consonant-initial word. As in pattern 2, this pattern is based on the use of an irregular stem alternation that will have to be acquired verb by verb, even though some sub-groups can be distinguished—for example, many verbs on *-ir*, like *finir* "to finish" with a plural form on /is/, e.g., *ils finissent* "they finish".

4. The fourth pattern (*Vuni*) includes verbs that lack an audible singular/plural distinction on the verb in the third person, such as regular *-er* verbs like *discuter* "to discuss" /ildiskut/ "he/they discuss(es)" or some irregular verbs like *courir* "to run" /ilkuʁ/ "he/they run(s)". In this study, we will take into consideration liaison contexts in

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vowel-initial verbs from the *Vuni* pattern. As mentioned above, liaison is a clear discriminative number marker in VP (i.e., plural).

To conclude, SV agreement in number in spoken French is unmarked in the singular and expressed morphologically in the plural by a combination of liaison, suppletive forms, vowel alternations and adjunctions of various verb-final consonants. Therefore, number agreement is very heterogeneous in spoken French and expressed mainly in a small group of (sometimes) very frequent verbs.

3.2. Subject–Verb Agreement in Number in the Learners' L1

Swedish is a North Germanic language characterized by the absence of SV agreement in person and number. In the present tense, in both spoken and written Swedish, there is only one finite verb form, ending in /r/, used in all persons in both singular and plural, as in the verb *att spela* "to play": *jag/du/han/hon/vi/ni/dom /spelar/* "I/you/he/she/we/you/they play" (Dahl and Koptjevskaja-Tamm 2010). It should be mentioned that the final consonant /r/ of the finite forms is not always clearly articulated, which means that the audible difference between the non-finite form, *spela* "to play" and the finite verb form, *spelar* "play(s)" is subtle. There are only a few exceptions to this pattern—for example, some modal verbs where the finite form is *måste* "must", *kan* "can" and *vill* "want" (cf. German below). However, Swedish speakers are not totally unfamiliar with morphosyntactic agreement since Swedish is characterized by rich agreement in NP (gender, number and definiteness).

Dutch is a Germanic language that distinguishes regular and irregular verbs and its agreement system marks singular agreement whereas the plural forms coincide with the default infinitive form in *-en* (*werk-en*, "to work/work") (Haeseryn et al. 1997). In spoken language, the -en form is not always clearly articulated but sometimes pronounced /ə/. In regular verbs, SV agreement is expressed by means of suffixation: +Ø for first person singular (werk-) and +t for second and third person singular (werk-t). Irregular verbs typically agree by stem alternation—in some cases, also in combination with the +*t* suffixation—resulting in a small variety of agreement paradigms. The verbs *hebben* "to have" and *zijn* "to be" show the richest verb paradigms, as they distinguish first person *heb* "have" and *ben* "am", second person *heb-t* "have" and *ben-t* "are" and third person *heeft* "has" and *is* "is". The irregular verbs *mogen* "may", *zullen* "will" and *kunnen* "can" have one or two singular forms depending on the register (formal/informal). The verb *gaan* "to go" represents an intermediate irregular paradigm, which distinguishes *ga- Ø* "go" for first person and *gaat* "go/goes" for second and third person. To summarize, Dutch SV agreement is marked by suffixation in regular verbs, resulting in three distinctive forms, and by stem alternation in irregular verbs, with a range of two to four distinctive singular and plural forms (cf. Table 1).

In German, which is also a Germanic language, all verbs have distinct forms in singular and plural. There is an alternation of suffixes on /t/ in third person singular and on /ən/ or /n/ in third person plural, as in *kauft* "buys" vs. *kaufen* "buy" (cf. Dutch). This alternation is very systematic, with only a few exceptions—for example, some modal verbs which form their singular form without the /t/ morpheme: *soll* (must), *kann* (can) and *will* (want) (Bittner 1996). In addition to suffixation, certain verbs in German also include stem alternation, where the vowel in the first syllable is modified. For instance, the verb *nehmen* (to take) has the third singular form *nimmt* and the third plural form *nehmen* (homophone to the infinitive form). However, this vowel alternation is not a regular phenomenon.

Italian is a Romance language characterized by a rich morphological agreement system in both NP and VP, largely based on suffixation. In all types of verbs, person and number are phonologically marked on the verb form itself, while the presence of a subject pronoun is optional (pro-drop). Hence, as far as the number distinction in third person is concerned, the singular form on /a/ or /e/ is always clearly distinguishable from the plural form on /ano/ or /ɔnɔ/. Verbs from the first conjugation forming their third person singular on /a/, such as *parla* ("speaks"), are the most frequent in spoken Italian according to corpus

data (De Mauro et al. 1993; Bellini and Schneider 2019). Even though suffixation is the main form of SV agreement in Italian, many irregular verbs also involve variation in the verb stem, which even further distinguishes the different persons from each other, such as the verb *andare* (to go): *vado* (1SG), vai (2SG), *va* (3SG), *andiamo* (1PL), *andate* (2PL) and *vanno* (3PL).

When examining the possible influence of the four source languages on the production of SV agreement in L2 French, we were inspired by the work of Xanthos et al. (2011) on morphological richness and language development. We used their model to describe the morphological richness of the verb paradigm in the different source languages of our corpus. Xanthos et al. (2011, p. 461) define *paradigmatic morphological richness* as "the tendency of a language to have a large number of formally distinct inflected word-forms per lemma". This model was originally used to examine the role of morphological richness in the parental input on children's early development of noun and verb morphology. Xanthos et al. found a strong positive correlation between morphological richness and the rate of morphological development in child speech. As illustrated in Table 1, we use a simplified version of the model and consider the number of distinct verb forms in the present tense (first to third person singular and plural) in the respective source languages as a measure of morphological richness. The source languages range from one verb form in Swedish to six distinct verb forms in Italian, with Dutch and German placed at intermediate positions. In Ringbom (2007) terms, Dutch, German and Italian all have a contrast relation to French, involving some degree of similarity in function (number agreement), while Swedish and French exhibit a zero relation in this respect.

Table 1. Cross-linguistic similarity and morphological richness of the source languages.

L1	Cross-Linguistic Similarity Relation with French SV Agreement in Number (Ringbom 2007)	Morphological Richness (Xanthos et al. 2011)
Swedish	Zero	1
Dutch	Contrast	2-3-4
German	Contrast	4
Italian	Contrast	6

In order to investigate the role of L1 influence on the production of SV agreement in number in L2 French, the following research question is addressed in the present study:

- To what extent do the morphosyntactic properties of the learners' L1—more precisely, its morphological richness in VP—influence their production of SV agreement in number in spoken L2 French?

The null hypothesis (H0) is that the linguistic properties of the target language and the complexity of the agreement system in spoken French will override the importance of the learners' L1 in this particular domain. According to the null hypothesis, we would thus expect L2 learner groups with different L1s to perform in a similar way when producing SV agreement in number. However, an alternative hypothesis (H1) would be that the morphosyntactic properties of the L1 will play a prominent role in the acquisition of SV agreement in number in spoken French. If this is the case, we expect learners with an L1 characterized by a rich SV agreement in person and number (Italian) to perform significantly better than learners with an L1 characterized by a partial SV agreement system (Dutch and German) or a L1 that lacks SV agreement altogether (Swedish).

4. Materials and Methods

4.1. Participants

The study includes 114 participants learning French in a university setting (Table 2). The learners belong to four different subgroups according to their L1, henceforth labeled ITA (Italian), GER (German), NLD (Dutch) and SUE (Swedish). Each L1 group includes

between 25 and 30 participants. All four groups include learners at two distinct developmental stages: the post-initial A2 level and the intermediate B1 level of the *Common European Framework of Reference for Languages* (European Council 2001). We evaluated the proficiency level of each participant using the vocabulary test included in the DIALANG test battery available online. DIALANG is a digital platform for self-evaluation of general second language proficiency aligned to the six proficiency levels of the *Common European Framework of Reference for Languages* (CEFR, European Council 2001). Previous research (see, for example, De Jong et al. 2012) has shown that vocabulary knowledge is a good predictor of general language proficiency. We used the vocabulary test as an independent measure of the learners' general proficiency level of L2 French. Only learners at the A2 and the B1 levels were included in the study.

Each participant filled in a language background questionnaire including personal data and information on first and second languages, learning contexts, etc. The participants in the NLD group, coming from the Dutch-speaking part of Belgium, generally started learning French at school earlier than the other three groups. Furthermore, the mean age at testing is lower in the NLD and the ITA groups. This is because these students generally start their studies at the university at a younger age and because these groups do not include any learners over 30. Both the GER and the SUE groups include a couple of participants over 50, which raises their mean age at testing. The common denominator for the participants is their L2 French proficiency level (see Table 2) and the fact that they are speakers of L2 English. In addition, some of them have other languages in their linguistic repertoire[5].

Table 2. General description of the different learner groups.

L1 Groups	Number of Learners at Level A2	Number of Learners at Level B1	Number of Participants (Total)	Mean Age at Testing	Mean Age of Onset (French)
ITA	15	15	30	21.3	16.4
GER	15	10	25	27.1	15.8
NLD	7	22	29	19.4	10.5
SUE	15	15	30	27.2	13.6
TOTAL	52	62	114	23.7	14.1

4.2. Tasks

In order to test if the learners' use of SV agreement in spoken French varies in singular and plural contexts, we used a narrative task called "Paul and Pauline are having a party" (*Paul et Pauline font la fête*). This task has been used in previous research on SV agreement in other groups of learners (see, for example, Ågren and van de Weijer 2013a, 2013b; Ågren 2014). The task is a picture-story including 30 colored images of two children preparing and attending the birthday party of their friend. It includes an alternation of pictures where one child (singular) versus several children (plural) are involved in the action (see examples in Appendix A). In this study, the task was further elaborated in order to introduce a more varied use of different agreement patterns. Thus, the pictures elicit the use of specific verbs with an audible number agreement in spoken French (*recevoir* "to receive", *aller* "to go", *dire* "to say", *mettre* "to put on", etc.). The learners watched the picture-story on a computer screen and scrolled from one picture to the next at their own pace. They were asked to retell the story in the present tense, in as much detail as possible, and were recorded with the computer tool *Audacity*.

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5   All L1 groups include speakers with other L2s than French and English. These languages have most often been studied at school, as indicated in the participants' linguistic background questionnaire. Languages mentioned were, for example, Arabic, Danish, Dutch, German, Japanese, Latin, Mandarin Chinese, Russian, Sign Language and Spanish. Since the focus of this study is on the CLI from the L1, these languages (L4, L5, etc.) were not further investigated.

4.3. Data Analysis

We transcribed the narratives according to the CHAT format and analyzed the corpus by means of the CLAN tools (MacWhinney 2000). In our annotation system, a dependent tier called *%ver* was added to indicate which verb forms were used in each specific subject–verb context. We annotated the following information:

- Number context of the sentence (SG vs. PL)
- Verb type (*Vuni, Vont, Vrad* or *Vcons*; see Section 3.1)
- Type of subject:
  - NP (*la fille* 'the girl")
  - proper noun (*Anne*)
  - pronoun (*elle* "she")
  - NP+pronoun (*la fille elle* . . .)
  - coordinated subject (*la fille et le garçon* "the girl and the boy")
  - relative pronoun (*qui*, "who")
- Verb form used in each specific agreement context:
  - (i) target-like according to the context
  - (ii) non-target-like but present in the paradigm of the target verb, such as the 3sg form (*prend* "takes") instead of the plural form (*prennent* "take"), the 3pl form instead of the 3sg form or the infinitive form (*prendre* "to take")
  - (iii) unexpected forms, which means all other verb forms produced outside the verb paradigm of a specific verb (*ils* */ʁəsyv/, instead of *ils reçoivent* /ilʁəswav/ ("they receive")).

Example 6 from the narrative of the Swedish learner SUEA207[6] illustrates a transcribed utterance with its annotation tier.

(6)   SUEA207
STU: ils */ʁəsyv/ [*] une invitation pour une fête à le maison de leur ami
%ver: recyv&ContPlur&Vcons&Spron&Finatt[7]

In the case of a repetition or a reformulation of the verb form used, we maintained the last produced form in our analyses. This annotation system allows us to calculate the number and the type of verb forms produced per learner and per group, in relation to the target context (singular or plural). In order to compare the results in different learner groups, number contexts and verb patterns, we used a statistical analysis based on the Pearson's X^2 test. The total number of correct and incorrect verb forms produced in the corpus is summarized in Appendix B. In the following section, we present the results, taking into consideration differences between number categories (singular vs. plural), L1-groups, proficiency levels and verb patterns.

5. Results

Table 3 gives an overview of the total number of verb forms (tokens) in all agreement patterns. Overall, the corpus includes 5945 verb forms produced with third person singular and plural subjects.

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[6]   Each learner has an individual code based on the L1 group (ITA–GER–NLD–SUE), the proficiency level (A2–B1) and an individual number (01–02–03– . . .). Thus, SUEA207 corresponds to "Swedish group, A2 level, learner number 07".

[7]   The annotation line "*resyv&ContPlur&Vcons&Spron&Finatt*" should be read as follows: the verb form produced is *resyv*. The form is produced in a plural context (*ContPL*), with a verb from the *Vcons* pattern (see Section 3.1), preceded by a pronominal subject (*Spron*) and the verb form is unexpected according to the target language (*Finatt = Forme inattendue* "unexpected form").

Table 3. Overview of the analyzed verb forms in third person singular and plural (tokens).

	SINGULAR					PLURAL					
L1	Vont	Vrad	Vcons	Vuni	Vindef	Vont	Vrad	Vcons	Vuni	Vindef	Total
ITA	164	75	91	257	15	198	31	181	471	12	1495
GER	129	46	51	169	5	150	25	114	212	15	916
NLD	277	85	124	327	0	229	33	196	290	3	1564
SUE	388	118	151	390	0	299	47	224	353	0	1970
Total	958	324	417	1143	20	876	136	715	1326	30	5945

In the four L1 groups and in both singular and plural contexts, verbs from the *Vuni* and from the *Vont* patterns are the most frequently used. However, note that number agreement is silent in *Vuni* and therefore not analyzed further in this study, unless the verb is vowel-initial and preceded by a plural subject pronoun (see Table 7). Verb forms belonging to the *Vcons* and especially the *Vrad* patterns are clearly less frequent in the corpus. Fifty forms have been categorized as *Vindef*, meaning that they are interlanguage forms, which are not identifiable as belonging to any of the analyzed agreement patterns (see example 7). These forms will not be included in the subsequent analyses.

(7)   GERA206
        ils   /pʁaktis/ [*]   danser
        "they practice dancing"

We also note that the different L1 groups differ in productivity. The Swedish learners produce the largest amount of SV agreement contexts (1970 verb forms—on average, 65.7 verbs/learner)—which is more than the Italian- and Dutch-speaking learners (1495 forms, 49.8 verbs/learner vs. 1564 forms, 53.9 verbs/learner) and more than the double those of the German-speaking group, which is the least productive (916 forms, 36.6 verbs/learner).

The frequency of verb forms that agree correctly in number with their subject (irrespective of agreement pattern) is shown in Table 4. Here, we indicate the number of correctly agreeing verb forms as well as the proportion of correct SV agreement per L1 group and per proficiency level (see Appendix B for details). As expected, the results clearly indicate that the participants in all L1 groups struggle more with agreement in plural than in singular contexts. In plural contexts, 62% of the verbs produced agree in number. In contrast, 94.6% of all verb forms agree in singular contexts. The overall level of SV agreement in singular and plural contexts differs significantly (X^2 = 583.72, df = 1, $p < 0.001$).

Table 4. Number of correctly agreeing verb forms in singular and plural contexts (proportion correct agreement within brackets).

	SINGULAR			PLURAL		
L1	Total	A2	B1	Total	A2	B1
ITA	337 (94.4)	147 (94.2)	190 (94.5)	302 (58.3)	108 (45.7)	194 (68.8)
GER	211 (92.1)	110 (91.7)	101 (92.7)	222 (62.2)	109 (51.4)	113 (77.9)
NLD	496 (95.8)	135 (94.4)	361 (96.3)	390 (71.8)	70 (59.3)	320 (75.3)
SUE	661 (94.7)	350 (92.1)	311 (97.8)	392 (57.0)	187 (54.5)	205 (59.4)
Total	1705 (94.6)	742 (92.9)	963 (96.0)	1306 (62.0)	474 (52.1)	832 (69.5)

Furthermore, Table 4 illustrates that the difference in overall SV agreement between L1 groups is small. In the singular, results range from 92.1% correct agreement (GER) to 95.8% (NLD) and the differences between L1 groups are non-significant. In plural contexts, differences between groups are larger and range from 57% (SUE) to 71.8% (NLD), with statistical analysis revealing a significant difference between L1 groups (X^2 = 32.626, df = 3, $p < 0.001$). In order to investigate this finding, we made a pairwise comparison of all L1 groups involved. This comparison reveals that the NLD group differs significantly from

the other groups. However, there was no significant difference between the ITA, GER and SUE groups (NLD vs. ITA X2 = 21.37, df = 1, p < 0.001; NLD vs. GER X2 = 9.1954, df = 1, p < 0.01; NLD vs. SUE X2 = 28.869, df = 1, p < 0.001). Thus, the differences in SV agreement in plural contexts observed between L1 groups are due to the relatively high performance of the NLD group in relation to the other three groups. In addition, we note that the L1 groups at the two end-points of our morphological richness scale, ITA and SUE (cf. Table 1, Section 3.2), perform almost identically. It is between these two groups that we hypothesized that we would find a difference in SV agreement due to their variation in morphological richness. However, the data analysis of our corpus does not confirm this hypothesis. These results will be further discussed in Section 6.

Finally, we consider the level of SV agreement in the two proficiency levels studied: A2 vs. B1. Overall, results are stable at the A2 and B1 levels in singular contexts. The L1 groups range from 92.9% correct agreement at the A2 level to 96.0% correct agreement at the B1 level. These differences are non-significant. However, an interesting observation is that in plural contexts, the difference between the average agreement at the A2 and the B1 levels is large, 52.1% vs. 69.5%, and overall significant (X^2 = 66.112, df = 1, *p* < 0.001). If we look at the data in each individual L1 group, we note that the proportion of correct agreement in plural contexts differs significantly between proficiency levels in the ITA, GER and NLD groups (ITA, X2 = 28.034, df = 1, p < 0.001; GER, X2 = 25.745, df = 1, p < 0.001, NLD, X2 = 6.9432, df = 1, p < 0.01) but not in the Swedish group. These results indicate an interaction of proficiency level and L1 group. It is only in the Swedish-speaking learners that there is a lack of development between the A2 and B1 levels in plural contexts. It is striking that, even at the intermediate B1 level, many Swedish learners have trouble producing plural verb forms in plural contexts. This observation could indicate a developmental delay in this morphosyntactic domain for Swedish learners, to which we will come back in Section 6. The examples in (8) and (9) are typical interlanguage forms produced by the Swedish learners in plural contexts.

(8)	SUEB103	*FdBsing*	
	Paul et Pauline euh ## /ɛ/ [*] parti pour la fête		[target form: /sɔ̃/]
	Paul and Pauline euh is left for the party		
	"Paul and Pauline left for the party"		
(9)	SUEB102	*FdBsing*	
	et donc Pauline et Paul /il/ /ekut/ [*] la musique		[target form: /ilzekut/]
	and then Pauline and Paul they listen the music		
	"and then Pauline and Paul listen to the music"		[omission of liaison]

Looking now at the production of SV agreement in number in the different agreement patterns, respectively, Table 5 presents the total results in the *Vont, Vrad* and *Vcons* patterns, whereas Tables 6 and 7 present the singular and plural contexts separately. The tables show the total number of correctly produced verb forms and the proportion of correct SV agreement in a given pattern. Recall that number agreement is silent in *Vuni* and therefore not included in Table 6 (singular). However, verbs from the *Vuni* pattern are included in Table 7 (plural) only when the verb is vowel-initial and preceded by a plural subject pronoun, which creates a context for preverbal liaison.

Table 5. Total number of correctly agreeing verb forms in the three different agreement patterns *Vont, Vrad* and *Vcons* (proportions within brackets).

| | ALL CONTEXTS (SG + PL) | | |
	Vont	Vrad	Vcons
TOTAL	2007 (90.8)	328 (78.7)	627 (61.4)

Table 6. Number of correctly agreeing verb forms in singular contexts in the three different agreement patterns *Vont, Vrad* and *Vcons* (proportions within brackets).

	SINGULAR CONTEXTS								
	Vont			**Vrad**			**Vcons**		
L1	**Total**	**A2**	**B1**	**Total**	**A2**	**B1**	**Total**	**A2**	**B1**
ITA	208 (100.0)	91 (100.0)	117 (100.0)	63 (90.0)	34 (89.5)	29 (90.6)	66 (83.5)	22 (81.5)	44 (84.6)
GER	137 (97.9)	72 (96.0)	65 (100.0)	36 (83.7)	18 (90.0)	18 (78.3)	38 (82.6)	20 (80.0)	18 (85.7)
NLD	332 (98.2)	86 (97.7)	246 (98.4)	68 (93.2)	19 (100.0)	49 (90.7)	96 (89.7)	30 (83.3)	66 (93.0)
SUE	441 (97.6)	245 (96.5)	196 (99.0)	104 (92.9)	49 (87.5)	55 (98.2)	116 (86.6)	56 (80.0)	60 (93.8)
Total	1118 (98.2)	494 (97.2)	624 (99.0)	271 (90.9)	120 (90.2)	151 (91.5)	316 (86.3)	128 (81.0)	188 (90.4)

Table 7. Number of correctly agreeing verb forms in plural contexts in the different agreement patterns *Vont, Vrad, Vcons* and *Vuni* (liaison) (proportions within brackets).

	PLURAL CONTEXTS											
	Vont			**Vrad**			**Vcons**			**Vuni (Liaison)**		
L1	**Total**	**A2**	**B1**	**Total**	**A2**	**B1**	**Total**	**A2**	**B1**	**Total**	**A2**	**B1**
ITA	211 (88.3)	81 (79.4)	130 (94.9)	10 (34.5)	3 (27.2)	7 (38.8)	65 (38.7)	22 (28.9)	43 (46.7)	16 (19.5)	2 (4.2)	14 (40.0)
GER	138 (80.7)	76 (77.5)	62 (84.9)	14 (58.3)	8 (47.1)	6 (85.7)	61 (56.0)	20 (37.0)	41 (74.5)	9 (16.9)	5 (11.6)	4 (40.0)
NLD	258 (89.2)	55 (83.3)	203 (91.0)	16 (61.5)	1 (25.0)	15 (68.2)	108 (60.7)	13 (36.1)	95 (66.9)	8 (16.0)	1 (8.3)	7 (18.4)
SUE	282 (75.6)	140 (70.3)	142 (81.6)	17 (42.5)	8 (44.4)	9 (40.9)	77 (38.3)	29 (31.5)	48 (44.0)	16 (21.6)	10 (29.4)	6 (15.0)
Total	889 (82.9)	352 (75.7)	537 (88.5)	57 (47.9)	20 (40.0)	37 (53.6)	311 (47.4)	84 (32.6)	227 (57.0)	49 (18.9)	18 (13.2)	31 (25.2)

When we compare results overall in Table 5, there is a significant difference in the level of correct number agreement produced by the learners in different agreement patterns ($X^2 = 757.9$, df = 2, $p < 0.001$). We note that the *Vont* pattern (90.8%) stands out from the other two patterns as being most frequently produced correctly.

Table 6 displays the result in singular contexts, where we note that SV agreement in *Vont* verbs is close to 100% and very high for the other agreement patterns as well. The statistical analysis reveals a significant difference between verb patterns (X^2-squared = 86.528, df = 2, $p < 0.001$) and again it is the *Vont* pattern that stands out as being more correctly produced than the other two patterns. Results are homogeneous across L1 groups. When we compare the more detailed A2–B1 results at L1 group level, we note an unexpected decrease in correct agreement of *Vrad* forms in the GER and the NLD groups.

Overall, the results in Table 7 show that SV agreement in plural contexts is most correct in the very frequent *Vont* verbs in all L1 groups. Within this pattern, there is an overall significant difference between L1 groups (X^2-squared = 27.798, df = 3, $p < 0.001$), with specific differences between GER and ITA (X2-squared = 4.5256, df = 1, p < 0.05) and between SUE and NLD (X^2-squared = 20.242, df = 1, $p < 0.001$). Moreover, Table 7 also indicates that the total level of agreement is comparable for the *Vrad* and *Vcons* patterns in plural contexts (47.9% vs. 47.4). This similarity is confirmed *within* L1 groups, even though the proportion of correctly agreeing forms differs *between* groups: 34.5–38.7% for ITA; 58.3–56% for GER; 61.5–60.7% for NLD and 42.5–38.3% for SUE. Investigating these differences between L1 groups further, we found a significant difference between groups in the *Vcons* pattern (X-squared = 27.56, df = 3, $p < 0.001$) but not in the *Vrad* pattern. This

result could possibly be due to the very low total number of occurrences produced in this particular agreement pattern, which might affect the statistical analysis. Overall, this result seems to indicate that the verb patterns *Vrad* and *Vcons* are equally difficult for the L2 learners, even if they are not mastered to a similar level in the different L1 groups. Again, we see that the ITA and the SUE learners perform in a similar way, as do the GER and the NLD learners.

Finally, the general results for the production of liaison in *Vuni* verbs are low in all groups. However, we consider the total number of liaison contexts produced in this corpus too low to make a statistical analysis worthwhile. We note nevertheless that the comparison of the A2 and B1 levels confirms a lack of positive development within the SUE group for the production of liaison. In fact, we observe a decrease in the production of liaison from the A2 (29.4%) to the B1 level (15%) in the Swedish learners. This tendency is not reflected in the other groups, where we see an increase in the use of liaison between the A2 and the B1 levels. We believe that this agreement pattern will have to be studied in a more experimental setting in a future study in order to elicit a sufficient number of vowel-initial verbs.

6. Discussion and Conclusions

Our study has focused on the role of cross-linguistic influence (CLI) on L2 learners' ability to use subject–verb agreement in number (third person singular vs. plural) in spoken French. This phenomenon is a well-known difficulty for L2 learners and previous studies have shown that they need a long time to integrate and automatize this morphosyntactic agreement (Ågren 2014; Bartning and Schlyter 2004; Howard 2006; Michot 2014; Véronique 2009). We wanted to compare the production of SV agreement in learner groups with different L1s in order to pinpoint a rarely mentioned factor in previous literature, namely CLI. More precisely, we wanted to know if the morphological richness of the learners' L1, Italian, German, Dutch and Swedish, in this morphosyntactic domain, influences the acquisition process (Ringbom 2007; Xanthos et al. 2011). During the data collection, several factors were controlled for in order to evaluate a possible CLI. All participants are L2 learners of French in a university setting in their home country, they are matched for proficiency level (A2 vs. B1) and they perform the same oral narrative task (*Paul and Pauline are having a party*), which involves an alternation of singular and plural contexts in different agreement patterns.

Our comparison of the production of SV agreement in the four L2 groups reveals a significant difference between L1 groups for SV agreement in plural contexts—however, not in the way that we predicted. According to our analyses, the NLD group performed significantly better than the other three groups overall. Note that Dutch has a *contrast relation* to spoken French in terms of SV agreement (Ringbom 2007; Ringbom and Jarvis 2009) but its morphological richness in the verb paradigm is not particularly strong (cf. Table 1). According to predictions based on the importance of the morphological richness of the L1, we would have expected the Italian group, if any, to outperform the other groups. However, this was clearly not the case. On the contrary, the Italian learners performed at the level of the Swedish learners, who have an L1 that lacks SV agreement in person and number altogether and therefore has a zero relation to spoken French in this domain (Ringbom 2007). Here, it is important to mention that the learners in the NLD group live in the Dutch-speaking region of Belgium. Since French and Dutch are both national languages in this country, the learning of "the other language", their first L2, starts early, already in primary school. Therefore, these learners started learning French at a younger age compared to the other groups (see Table 2, mean age 10.5 years) and they have been exposed to French in an educational setting for a longer period. Note, however, that the Dutch-speaking learners do not come from the bilingual regions close to Brussels and their extracurricular contact with French was controlled for when they were recruited. They reported very little informal exposure to French through television, newspapers, music, etc. Their earlier age of onset of acquisition of French has not resulted in a higher proficiency

level at the time of testing, at least not according to the vocabulary test used as an independent measure of proficiency in this study (DIALANG n.d.). Nevertheless, we cannot exclude the possibility that the difference in age of onset and therefore also possibly in type of exposure to the target language inside and outside school may explain the differences observed between L1 groups in our empirical study rather than the morphological richness of the source languages themselves.

However, in relation to this finding, it is interesting to mention another difference observed between L1 groups in the data, which concerns the comparison of different proficiency levels (A2 vs. B1). In this respect, our analysis revealed a significant difference between A2 and B1 levels in L1 groups with a *contrast relation* to spoken French (ITA, GER and NLD) and a lack thereof in the Swedish group (*zero relation* to French). This result could be interpreted as a developmental delay in the Swedish group, which might, in turn, be an effect of the absence of SV agreement in person and number in the source language. The lack of SV agreement in Swedish could prolong the acquisition process of SV agreement in L2 French for these learners. In other words, as underlined by Ellis and Shintani (2014), a negative influence from a source language on the target language could result in slower L2 development. On the contrary, a positive effect of a contrast relation between source and target language, irrespective of the type of relation, could underlie an accelerated speed of L2 development, as observed in the data from our ITA, GER and NLD groups. At the same time, when it comes to the production of SV agreement in different verb patterns, including liaison, the performance of the different L1 groups is mainly similar, even if the development is slower in the Swedish learners. To this end, it is important to remember that the differences observed in developmental speed between groups in our corpus was only found when we compared the results of different proficiency levels within each L1 group. This finding could be an important indication for future studies. When looking for possible CLI effects, it is crucial to take into consideration the proficiency level of the learners within and across L1 groups in relation to the typological differences between source languages.

To conclude, this study highlights the complex interplay of different variables involved in the L2 acquisition process of SV agreement in spoken French. We have shown that CLI is one factor among others that needs to be taken into consideration, at least as far as the rate of L2 acquisition is concerned. Even so, as underlined already by Selinker (1972), the effects of CLI on L2 production are not always straightforward, as seen in the results of our Italian learners. The expected facilitating effect of a morphologically rich L1 could not be confirmed in this study, where the Italian group did not outperform their NLD and GER peers. However, during the detailed analysis of our rich corpus, we have noticed that there might in fact be more subtle effects of the learners' L1 on their production of SV agreement in French than those presented in this quantitative analysis. This observation is being explored in a separate qualitative study of different types of learner errors, where we will continue the discussion of the possible effects of CLI on the acquisition process of morphosyntactic agreement patterns.
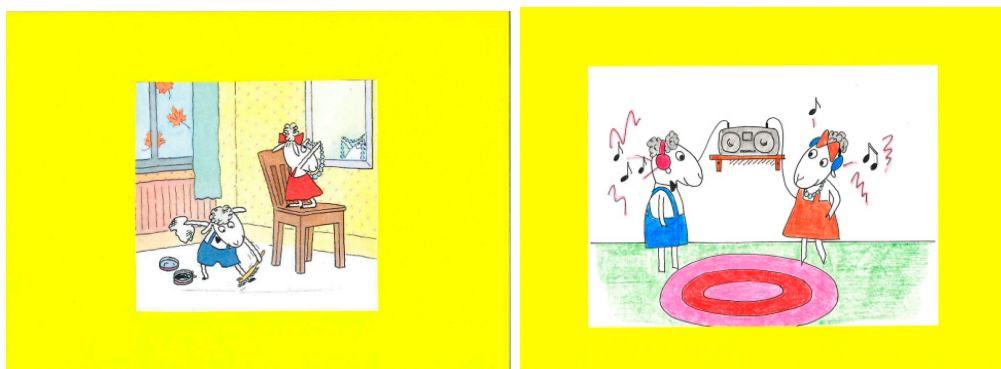
Appendix A

Figure A1. Examples from the Picture-Story *Paul et Pauline font la fête* "Paul and Pauline are having a party", Eliciting Singular and Plural Verb Forms.

Appendix B

Table A1. Number of Verb Forms that Agree Correctly in Number with Their Subjects, per Context, Proficiency Level and Verb Pattern.

	ITAA2 (15 Participants)		GERA2 (15 Participants)		NLDA2 (7 Participants)		SUEA2 (15 Participants)	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
Singular	**147**	**9**	**110**	**10**	**135**	**8**	**350**	**30**
Vont	91	0	72	3	86	2	245	9
Vrad	34	4	18	2	19	0	49	7
Vcons	22	5	20	5	30	6	56	14
Plural	**108**	**128**	**109**	**103**	**70**	**48**	**187**	**156**
Vont	81	21	76	22	55	11	140	59
Vrad	3	8	8	9	1	3	8	10
Vcons	22	54	20	34	13	23	29	63
Vuni	2	45	5	38	1	11	10	24
Total A2	**255**	**137**	**219**	**113**	**205**	**56**	**537**	**186**
	ITAB1 (15 Participants)		GERB1 (10 Participants)		NLDB1 (22 Participants)		SUEB1 (15 Participants)	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
Singular	**190**	**11**	**101**	**8**	**361**	**14**	**311**	**7**
Vont	117	0	65	0	246	4	196	2
Vrad	29	3	18	5	49	5	55	1
Vcons	44	8	18	3	66	5	60	4
Plural	**194**	**88**	**113**	**32**	**320**	**105**	**205**	**140**
Vont	130	**7**	62	11	203	20	142	32
Vrad	7	11	6	1	15	7	9	13
Vcons	43	49	41	14	95	47	48	61
Vuni	14	21	4	6	7	31	6	34
Total B1	**384**	**99**	**214**	**40**	**681**	**119**	**516**	**147**
TOTAL A2-B1	**639**	**236**	**433**	**153**	**886**	**175**	**1053**	**333**

References

Ågren, Malin. 2014. Production et compréhension de la morphologie verbale en FLE: Les difficultés de l'accord sujet-verbe en nombre. *Cahiers de l'AFLS* 19: 1–22.

Ågren, Malin, and Joost van de Weijer. 2013a. Input frequency and the acquisition of subject-verb agreement in number in spoken and written French. *Journal of French Language Studies* 23: 311–33. [CrossRef]

Ågren, Malin, and Joost van de Weijer. 2013b. Number problems in monolingual and bilingual French-speaking children: A production/comprehension divide. *Language, Interaction and Acquisition* 4: 25–50. [CrossRef]

Aronin, Larissa, and David Singleton. 2012. *Multilingualism*. Amsterdam: John Benjamins.

Bartning, Inge, and Suzanne Schlyter. 2004. Itinéraires acquisitionnels et stades de développement en français L2. *Journal of French Language Studies* 14: 281–99. [CrossRef]

Bassano, Dominique, Isabelle Maillochon, Sabine Klampfer, and Wolfgang U. Dressler. 2001. L'acquisition de la morphologie verbale en français et en allemand autrichien: II. L'épreuve des faits. *Enfance* 53: 117. [CrossRef]

Bellini, Daniele, and Stefan Schneider, eds. 2019. *Banca dati dell'italiano parlato (BADIP)*. Graz: Karl-Franzens-Universität Graz, Available online: http://badip.uni-graz.at (accessed on 9 November 2020).

Bittner, Andreas. 1996. *Starke « schwache » Verben, schwache «starke» Verben. Deutsche Verbflexion und Natürlichkeit*. Tübingen: Stauffenburg.

Dahl, Östen, and Maria Koptjevskaja-Tamm. 2010. Rich agreement, everything else being equal and large-scale cross-linguistic comparison. *Theoretical Linguistics* 36: 49–56. [CrossRef]

De Angelis, Gessica. 2007. *Third or additional language acquisition*. Clevedon: Multilingual Matters.

De Jong, Nivja H., Margarita P. Steinel, Arjen F. Florijn, Rob Schoonen, and Jan H. Hulstijn. 2012. Facets of speaking proficiency. *Studies in Second Language Acquisition* 34: 5–34. [CrossRef]

De Mauro, Tullio, Frederico Mancini, Massimo Vedovelli, and Miriam Voghera. 1993. *Lessico di frequenza dell'italiano parlato*. Milano: Etaslibri.

DeKeyser, Robert. M. 2005. What Makes Learning Second-Language Grammar Difficult? A Review of Issues. *Language Learning* 55: 1–25. [CrossRef]

DIALANG. n.d. Available online: https://dialangweb.lancaster.ac.uk/ (accessed on 29 April 2019).

Dubois, Jean. 1967. *Grammaire structurale du français: Le verbe*. Paris: Larousse.

Ellis, Rod, and Natsuko Shintani. 2014. *Exploring Language Pedagogy through Second Language Acquisition Research*. London and New York: Routledge.

European Council. 2001. *Common European Framework of Reference for Languages: Learning, Teaching and Assessment*. Cambridge: CUP.

Falk, Ylva, and Camilla Bardel. 2010. The study of the role of the background languages in third language acquisition: The state of the art. *International Review of Applied Linguistics in Language Teaching* 48: 185–219. [CrossRef]

Fayol, Michel. 2003. L'acquisition/apprentissage de la morphologie du nombre: Bilan et perspectives. *Rééducation Orthographique* 213: 151–66.

Foote, Rebecca. 2009. Transfer in L3 acquisition: The role of typology. In *Third Language Acquisition and Universal Grammar*. Edited by Yan-Kit I. Leung. Bristol: Multilingual Matters, pp. 89–114.

Gougenheim, Georges, René Michéa, Paul Rivenc, and Aurélien Sauvageot. 1964. *L'élaboration du Français Fondamental*. Paris: Didier.

Granget, Cyrille, Marie-Eve Michot, Malin Ågren, Pascale Hadermann, Sonia Gerolimich, and Isabelle Stabarin. Forthcoming. Acquisition des formes verbales irrégulières en français L2: La L1 des apprenants fait-elle la différence? In *Reflexions sur les usages et les utilisateurs du français: Aspects acquisitionnels et didactiques*. Edited by Inès Saddour and Cecilia Gunnarsson. Bruxelles: Peter Lang.

Haeseryn, Walter Jan-Maria, Kirsten Romijn, Guido Geerts, J. de Rooij, and Maarten C. Van den Toorn. 1997. *Algemene Nederlandse Spraakkunst*. Groningen: Wolters Plantyn.

Hermas, Abdelkader. 2014. Multilingual transfer: L1 morphosyntax in L3 English. *International Journal of Language Studies* 8: 1–24.

Howard, Martin. 2006. The expression of number and person through verb morphology in advanced French interlanguage. *International Review of Applied Linguistics in Language Teaching* 44: 1–22. [CrossRef]

Howard, Martin, and Malin Ågren. 2019. French liaison in second language acquisition. *Language, Interaction and Acquisition* 10: 1–10. [CrossRef]

Jarvis, Scott, and Terence Odlin. 2000. Morphological type, spatial reference, and language transfer. *Studies in Second Language Acquisition* 22: 535–56. [CrossRef]

Jarvis, Scott, and Agneta Pavlenko. 2008. *Cross-Linguistic Influence in Language and Cognition*. New York: Routledge.

Kilani-Schoch, Marianne. 2003. Early verb inflection in French: An investigation of two corpora. In *Development of Verb Inflection in First Language Acquisition*. Edited by Dagmar Bittner, Wolfgang U. Dressler and Marianne Kilani-Schoch. Berlin and New York: De Gruyter Mouton, pp. 269–96.

Lado, Robert. 1957. *Linguistics across Cultures: Applied Linguistics for Language Teachers*. Ann Arbor: University of Michigan Press.

Long, Michael H. 1990. The least a second language acquisition theory needs to explain. *TESOL Quarterly* 24: 649–66. [CrossRef]

MacWhinney, Brian. 2000. *The CHILDES Project: Tools for Analysing Talk*, 3rd ed. Mahwah: Lawrence Erlbaum Associates.

Michot, Marie-Eve. 2014. L'acquisition de l'accord sujet-verbe en FLE: L'impact de la classe verbale. *Cahiers de l'AFLS* 19: 56–79.

New, Boris, and Christophe Pallier. 2020. Lexique Corpus. Available online: www.lexique.org (accessed on 1 October 2020).

New, Boris, Christophe Pallier, Marc Brysbaert, and Ludovic Ferrand. 2004. Lexique 2: A new French lexical database. *Behavior Research Methods, Instruments & Computers* 36: 516–24.

Odlin, Terence. 1989. *Language Transfer: Cross-Linguistic Influence in Language Learning*. Cambridge: CUP.

Odlin, Terence. 2005. Crosslinguistic influence and conceptual transfer: What are the concepts? *Annual Review of Applied Linguistics* 25: 3–25. [CrossRef]

Prévost, Philippe. 2009. *The Acquisition of French. The Development of Inflectional Morphology and Syntax in L1 Acquisition, Bilingualism, and L2 Acquisition*. Amsterdam: John Benjamins.

Ringbom, Håkan. 2007. *Cross-Linguistic Similarity in Foreign Language Learning*. Clevedon: Multilingual Matters.

Ringbom, Håkan, and Scott Jarvis. 2009. The importance of cross-linguistic similarity in foreign language learning. In *The Handbook of Language Teaching*. Edited by Michael. H. Long and Catherine Doughty. Oxford: Blackwell Publishing, pp. 106–18.

Rothman, Jason. 2011. L3 syntactic transfer selectivity and typological determinacy: The typological primacy model. *Studies in Second Language Research* 27: 107–27. [CrossRef]

Rothman, Jason, Jorge González Alonso, and Eloi Puig-Mayenco. 2019. *Third Language Acquisition and Linguistic Transfer*. Cambridge: CUP.

Selinker, Lary. 1972. Interlanguage. *International Review of Applied Linguistics* 10: 209–31. [CrossRef]

Sharwood Smith, Michael, and Eric Kellerman, eds. 1986a. *Crosslinguistic Influence in Second Language Acquisition*. New York: Pergamon Press.

Sharwood Smith, Michael, and Eric Kellerman. 1986b. Crosslinguistic influence in second language acquisition: An introduction. In *Crosslinguistic Influence in Second Language Acquisition*. Edited by Michael Sharwood Smith and Eric Kellerman. New York: Pergamon Press, pp. 1–20.

Stabarin, Isabelle, and Sonia Gerolimich. 2014. Observations sur l'acquisition de la morphologie verbale du français par des italophones: Influences translinguistiques et transferts. *Cahiers de l'AFLS* 19: 82–115.

Tang, Mengmeng, Norbert Vanek, and Leah Roberts. 2020. Crosslinguistic influence on English and Chinese L2 speakers' conceptualization of event series. *International Journal of Bilingualism*. [CrossRef]

Treffers-Daller, Jeanine, and Jeanette Sakel. 2012. Why transfer is a key aspect of language use and processing in bilinguals and L2-users. *International Journal of Bilingualism* 16: 3–10. [CrossRef]

Tsang, Wai Lan. 2017. *Crosslinguistic Influence in Multilinguals. An Examination of Cinese-English-French Speakers*. Bristol: Multilingual Matters.

Véronique, Daniel. 2009. *L'acquisition de la grammaire du français langue étrangère*. Paris: Didier.

von Stutterheim, Christiane, Monique Flecken, and Mary Carroll. 2013. Introduction: Conceptualizing in a second language. *International Review of Applied Linguistics in Language Teaching* 51: 77–85. [CrossRef]

Weinreich, Uriel. 1953. *Languages in Contact, Findings and Problems*. New York: Linguistic Cercle of New York.

Xanthos, Aris, Sabine Laaha, Steven Gillis, Ursula Stephany, Ayhan Aksu-Koç, Anastasia Christofidou, Natalia Gagarina, Gordana Hrzica, Nihan Ketrez, Marianne Kilani-Schoch, and et al. 2011. On the role of morphological richness in the early development of noun and verb inflection. *First Language* 31: 461–79. [CrossRef]

Kellerman, Eric. 1983. Now you see it, now you don't. In *Language Transfer in Language Learning*. Edited by Susan Gass and Lary Selinker. Rowley: Newbury House, pp. 112–34.

The Emergence of Determiners in French L2 from the Point of View of L1/L2 Comparison

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Abstract: The acquisition of determiners in French presents a significant challenge for both children in L1 and adults in L2. Research in L1 acquisition has found that French determiners, which are highly constrained, appear quite early relative to other languages. Using the conversational data of two beginning learners of French—a native speaker of Spanish and a native speaker of Arabic— in a natural setting (comparable to the L1 data), the present study seeks to understand how these constraints affect the acquisition of the determiner system in L2 French. Analyses reveal the following: (1) Unlike French children who produce "fillers" without clear functional distinctions, adults produce idiosyncratic pre-nominal monosyllables that not only fulfil the obligatory position of "determiner" but are also characterized by identifiable functions in terms of definiteness or indefiniteness. (2) Adult learners' L1s (Spanish and Arabic) influence the acquisition of NP in French L2, as observed in the emergence of determination in the two learners' productions. (3) Adult learners' productions provide evidence of shared "language-neutral" processes attested in initial acquisition in a natural setting; these are independent of the L1 and L2 input properties.

Keywords: noun phrase; determiner system; French L2; beginning stages in L2; ESF corpus; Spanish L1; Moroccan Arabic L1; L2 learner productions; Basic Variety; learner varieties

1. Introduction

Requirements for the use of determiners in French are perhaps the strongest and most restrictive of the Romance languages (Bassano et al. 2011). In this respect, the pre-posed article marks gender, number and the definite/indefinite nature of reference to entities. The acquisition of nominal determiners in French poses a challenge for both children and adult learners because the determiner marks the grammatical category of the noun, and as such, the acquisition of determiners plays an important role in the grammaticalization process in first language (L1) and second language (L2) acquisition. The term "grammaticalization" is used here in the psycholinguistic sense (cf. Bassano 2010) and refers to the process by which children establish and integrate grammatical constraints of the L1 system. In second language acquisition research, it refers to the morphosyntactic development of a learner variety, which gradually evolves towards native speaker norms (cf. Giacalone Ramat 1992). Research conducted on productions of French-speaking children has found that determiners in French appear quite early (Bassano 2000, 2010; Veneziano and Sinclair 2000; Bassano et al. 2008), relative to Germanic languages (Bassano et al. 2011).

In case studies conducted within the functionalist framework, Bassano et al. (2011) studied the acquisition of determiners in the productions of French-speaking children between the ages of one and three years old. They found that, even though the numbers of occurrences were small, the French children produced determiners as of 20 months (if not

before), and they also produced pre-nominal "fillers", monosyllables with no functional distinction, that appear to be precursors to determiners. At 2;6 years old, determiners prevailed over fillers. Although nominal determiners were used by some of the children in an adult-like way, this was not the case with all of them; for some, the process of grammaticalization was not yet complete at 2;3 years old. Most had grammaticalized by 3;3, with a 95% rate of accuracy for determiners used in obligatory contexts. The children's developing ability to produce determiners was simultaneously explosive and progressive; it was explosive if we only consider the morphemes in their target-like form, and progressive if we take into consideration the precursors of determiners in the form of "fillers" (Bassano et al. 2008).

In their studies of language development, Bassano et al. (2011) demonstrate the following tendencies: the definite determiner is produced more frequently than the indefinite, masculine more than feminine, and singular more than plural. These tendencies are likely based on the marked vs. unmarked nature of these features. The dominance of the definite over the indefinite must be qualified, however. Results of these studies also indicate that before 2 years of age, the indefinite article is slightly more frequent than the definite, suggesting that the L1 determiner system emerges through the indefinite rather than the definite. This can be explained by the numerical origin of indefinites and by functional factors, such as labelling and naming, which are particularly acute in children's productions during their discovery of language and the world.

Concerning the acquisition of the noun phrase (NP) in L2 French, a substantial amount of research has been conducted. In addition to an overview of studies (Véronique et al. 2009) based on data collected within a functionalist framework (Perdue 1993; Hendriks 2005) and a generativist framework (Granfeldt 2003; Sleeman 2004), the acquisition of the French NP system by speakers of different source languages (SL) has been the focus of much research, e.g., Spanish, Arabic (Perdue 1993), Swedish (Granfeldt 2003), English (Prodeau 2005; Carroll 1999), Dutch, Japanese (Sleeman 2004), Korean (Kim et al. 2006), and Chinese (Hendriks 2000). Taken together, these studies report results from a variety of tasks, including free conversations, personal or fictional narratives, picture descriptions, and even instructions for assembling objects. Needless to say, results of these studies are not easily comparable given their focus on different types of learners with different SLs and target languages (TL), different levels of L2 (beginner, intermediate, and advanced) and different learning environments (migrants vs. students); however, gathering information from such diverse studies of L2 acquisition will certainly lead to a better understanding of learners' various acquisitional paths, from which certain comparisons can be gleaned.

The present study is centered on the acquisition of the NP in TL French by beginning adult learners in a natural learning environment. This study sets out to understand how the constraint of an obligatory determiner in L2 French will affect the emergence of this category in adult L2 acquisition and to observe whether a similar development process to that attested in the productions of French-speaking children will be found in adult L2 French productions. In order to respond to these questions, adult L2 data need to be collected in the same way as the L1 data, that is, through a longitudinal study of the learners' productions in free conversation. It follows that the data selected and analyzed for the present study come from the ESF corpus in which the L2 oral productions of beginning learners were recorded in a natural setting. These data are comparable with the L1 data in their longitudinal nature and in the type of discourse used to elicit these productions, namely daily conversations.

Most of the research conducted within the ESF project focused on utterance structure in the acquisition of the verb phrase (VP). Although studies on the acquisition of the NP were less common, several tendencies were identified. In the French L2 data of the ESF project, a series of nouns usually followed the word order of spoken French, which, to a large extent, corresponds to the order of learners' SL as well. Some examples are: *carte séjour* by an Arabic speaker, Abdelmalek (Véronique 1986) and *alliance france* by a Spanish speaker, Berta (Noyau 1986). This simple lexical formulation (with or without a

determiner) provides no explicit grammatical information about the relationship between the two nouns. Learners acquire relatively quickly a unique form of the definite article with no gender or number marking to express contextualized known information. This form exists in contrast to a noun with no determiner. Eventually, the determiner develops into one that marks for number, usually by means of numerical adjectives or expressions of quantity (e.g., *beaucoup de* 'many/much'). The singular/plural distinction is the first to be acquired. The masculine/feminine opposition is mastered later, when gender is semantically founded (Perdue 1993). In other words, learners acquire a form of determiner that marks the singular/plural distinction before they acquire a form of determiner that marks the masculine/feminine distinction.

The present study, conducted within the Learner Variety approach (Klein 1984; Klein and Perdue 1997; Watorek and Perdue 2005), extends the work of the ESF project on language acquisition by adult migrants in a natural setting. The project, a three-year longitudinal cross-linguistic study of the acquisition of five European TLs (English, German, French, Swedish, and Dutch), highlights similarities in the acquisition of a new TL by speakers of five SLs (Arabic, Spanish, Italian, Turkish, Punjabi, and Finnish) through the identification of three primary acquisitional stages relative to the Basic Variety (BV):

(1) Nominal utterance organization (pre-Basic Variety),
(2) Verbal utterance organization with no functional inflections (Basic Variety, Klein and Perdue 1997), and
(3) Finite utterance organization with functional inflections and target-like syntax (post-Basic Variety).

The Learner Variety approach originates from the functionalist perspective of language acquisition, in which acquisition is believed to be the result of interactions between communicative factors that "push" acquisition and structural factors that "shape" acquisition. In order to meet communication needs in the TL, learners perform tasks in their TL that push them to develop new and more complex linguistic means and capacities. This performance requires them to integrate characteristics of the TL found in the input (Giacalone Ramat 1992) so that they can gradually build necessary linguistic knowledge to posit and test hypotheses in the TL.

The present article, inspired by research in L1 acquisition that investigates the emergence of the determiner, reports on two case studies, namely two beginning learners with different SLs (Arabic and Spanish) learning French in a natural setting. The study addresses three principal research questions:

(1) Are there similarities between L1 and L2 in the acquisition of French determiners? Are "fillers" found in L2 productions in a similar form to those produced by children in their L1? To what extent are adult learners of French sensitive to the fact that some pre-nominal element is necessary in the NP?

(2) To what extent does the L1 (Spanish or Arabic in this case) influence the emergence of determiners in L2 French productions? Research in L2 acquisition suggests that the learner's L1 can play an important role in the construction of a new L2 system (Giacobbe 1992; Hinz et al. 2013; Jarvis and Pavlenko 2010; Pavlenko 2011). Is this the case for determiners at the early stages of L2 acquisition, and if so, what differences might we observe in our two learners with different L1s?

(3) Are there similarities in the way speakers of different L1s acquire the determiner system of a new TL, French in this case? Results of the ESF project suggest that regardless of the SL and TL of the learners, certain phenomena in the L2 acquisition process are shared and are, in fact, "language neutral" (Klein and Perdue 1997).

2. Materials and Methods

2.1. Informants

As mentioned above, our study is based on longitudinal data collected for the ESF project. In order to compare the type of data analyzed by Bassano et al. (2008) for child L1

acquisition, we selected free conversations of two learners of French, Berta (native speaker of Spanish) and Zahra (native speaker of Arabic), over three recording cycles.

Prior research conducted on ESF data (Klein and Perdue 1997; Benazzo 2002; Giuliano 2004) reveals three stages of L2 acquisition, as described above, which do not necessarily coincide with the recording periods. Berta's productions show three stages—pre-BV, BV, and post-BV—whereas Zahra's productions begin to show characteristics of the BV already in cycle 1. Her progress towards post-BV is gradual and begins at the end of cycle 2 (Giuliano and Véronique 2005). According to socio-biographical data from the ESF project (Perdue 1993; Giuliano and Véronique 2005), Berta was 31 years of age when the data collection began. Married with two children, she worked as a cook. In her home country (Chile), she went to school for 8 years (until junior high school) and took 180 h of French instruction (6 months) upon arrival in France in January 1983. Her participation in the data collection began one month after her arrival. Zahra arrived in France in 1981. She was 34 when the data collection began, 13 months after her arrival in France. Married with three children, she worked as a house keeper. Zahra did not receive formal schooling in her home country (Morocco). Upon arrival in France, she took approximately 20 h of French instruction. In sum, the two learners, both women, one Spanish speaking, the other Arabic speaking, were immersed in the same TL, French. Neither had studied another language before the onset of the ESF project.

For cycle 1, conversations with Berta were recorded 10 months after her arrival in France, and those with Zahra, 20 months after her arrival. Approximately 7 months passed before the recordings of cycle 2 took place for each of the learners. Cycle 3 recordings started an additional 9 months later for Berta and 16 and a half months for Zahra. In spite of this different time frame for the two learners, their productions highlight the gradual evolution towards the post-BV already reported in prior research examining the production data of these two women (Noyau 1991; Véronique 1986).

Given that the recordings of our two learners did not take place at precisely the same time, we do not attempt to compare their productions at any given cycle. Rather, our comparisons focus on the manner in which the four categories of NP analyzed (see Section 2.3) evolve in Zahra's and Berta's productions over the three cycles.

2.2. Source and Target Languages

French attests a varied determiner system with prosodic and morphosyntactic features that are quite clear and consistent. The principal determiners are definite, indefinite and partitive articles, possessives and demonstratives, all of which are pre-posed. They carry markers of gender (in the singular), number, and the definite/indefinite character of the reference. They are monosyllabic and pro-clitic, forming a prosodic unity with the noun that follows. The definite articles consist of simple forms (*le, la, les*), along with contractions formed with the prepositions *à* 'to/at' or *de* 'of' (*au, aux* 'to the', *du, des* 'of the'). The partitive articles (*du, de la, de l', des* 'some/any') are used with mass nouns. The requirement to use a determiner is particularly strong in French; the use of determiners is frequent and regular, but some bare nouns do exist, for instance, in expressions of quantity like those with the preposition *de* 'of' (*beaucoup de* 'a lot of') or after negation (*pas de* 'not any'). These trigger the omission of both the indefinite article *des* and partitive articles (Bikić-Carić 2008). Furthermore, determiners are not used before proper nouns, nor within certain verbal-nominal expressions (e.g., *avoir faim*, literally 'have hunger', i.e., 'to be hungry'), nor after certain prepositions (e.g., *sans argent* 'without money') (Bassano et al. 2008).

In Berta's SL, Spanish, the determiner system of the NP partially resembles that of French. Both languages have articles and in both, the article precedes the noun and marks gender and number as seen in Table 1.

Table 1. Determiners in French and Spanish.

		Masculine			Feminine		
		Definite	**Indefinite**	**Partitive**	**Definite**	**Indefinite**	**Partitive**
Singular	**French**	*le livre*	*un livre*	*du vin/de l'alcool*	*la maison*	*une maison*	*de la bière/de l'eau*
	Spanish	*el libro*	*un libro*	*Ø vino/Ø alcohol*	*la casa*	*una casa*	*Ø cerveza/Ø agua*
		'the book'	'a book'	'wine/alcohol'	'the house'	'a house'	'beer'/'water'
Plural	**French**	*les livres*	*des livres*	*des petits pois*	*les maisons*	*des maisons*	*des frites*
	Spanish	*los libros*	*(unos) libros*	*Ø chicharos*	*las casas*	*(unas) casas*	*Ø patatas fritas*
		'the books'	'books'	'peas'	'the houses'	'houses'	'French fries'

There are differences between French and Spanish, however. The Spanish definite article does not elide in front of a vowel as it does in French. The absence of the article is much less constrained in Spanish; the zero article commonly expresses the indefinite plural (e.g., *tienes libros? = tu as des livres?* 'you have some books?'). The use of *unos* 'some' in this type of context refers to the notion of indefinite quantity (*unos libros = quelques livres* 'some books') (Teyssier 2004). The zero article can also carry a partitive meaning, which is why no determiner precedes mass nouns (e.g., *Compré (0) vino/arroz = j'ai acheté du vin/du riz*, 'I bought wine/rice'—(Green 1988, p. 106)).

Zahra's SL is Moroccan Arabic (MA). From a rural area where she received no formal instruction, Zahra came to France with no knowledge of Modern Standard Arabic, Classical Arabic or French. For this reason, we take into account the dialectical characteristics of MA (Darija) in our discussion of SL influence in L2 acquisition. Although the system of determination in MA includes definite and indefinite marking, usage is less strict and consistent than it is in French. Unlike in French, there is only one definite article in MA, regardless of gender and number. It is attested in the written language by placing *l-* before the noun as in *l-weld* 'the boy'. In the spoken language, the *l-* is pronounced but no separation or pause is heard. For the purposes of this article, it is important to note an observation by Turner (2013, p. iv) that, "*l-* has lost its association with definiteness and has become lexicalized into an unmarked form of the noun that can appear in any number of semantic contexts". Hence, *l-* expresses more than definiteness. Other forms also express definiteness in MA. Given the phonological constraint in MA that words cannot begin with three consecutive consonants unless the first or second consonant is repeated, *l-* cannot precede nouns that start with a consonant cluster. In this case, the vowel *e* is inserted between *l-* and the first consonant of the noun, as in *le-mdina* 'the city'. When a noun begins with one of the following consonants—d, đ, ł, n, r, r̲, s, ṣ, š, t, ŧ, z, ẓ, ž –, assimilation occurs and the form that the definite article takes is a repetition of the initial consonant, as in *suq* '(a) market' and *s-suq* 'the market'. As for the indefinite marking, the general consensus is that two indefinite determiners are prominent in MA. The first is equivalent to the quantifier 'one' *wâhed*, as in *wâhed el-hmâr* 'a donkey' (Brustad 2000). The other indefinite form is *si/shi* 'some', as in *si weld* 'some boy'.

2.3. Coding

For our L2 data analysis, we used an adapted version of the coding system designed for L1 data analysis by Bassano et al. (2008) in which they propose four major categories. These remain intact in our coding system as well: correct bare noun, incorrect determiner omission, determiner use and filler use.

A "correct bare noun" (0CORR) corresponds to a determiner which is not required in the TL as in *je ne parle pas français* 'I don't speak French'.

An "incorrect determiner omission" (OMISS) is an omission of the required determiner in TL. We include in this category TL nouns without a determiner when it is required, as well as idiosyncratic lexical nouns. We also included in this group nouns in French that begin with a vowel and are preceded by a definite article, creating elision (e.g., *l'école* 'the school'/*lekol* 'school'). This category is then analyzed in context, the goal being to

determine if the learner treats the components as one unit or not. This decision aligns with the theoretical position of the Learner Variety approach.

A "determiner use" (DET + N) corresponds to the production of a determiner clearly specified and identified in the TL as in *la maison* 'the house'. It is a correct NP production from a TL perspective.

A "filler use" (FILL) corresponds to a syllable item used in place of the required determiner as in the classification set out by Bassano et al. (2008). We merged this category of "filler" with another broader one, IL(DET + N), which includes different idiosyncratic phenomena in the learners' language productions. In these cases, the determiner and/or noun do not comply with the rules of the TL. Different subcategories are presented in Table 2 (see Section 3.2).

Our investigation focuses on 120 utterances selected from conversations in each cycle in such a way that the NPs could be analyzed with respect to their conversational context. A tool developed by Sarra El Ayari, called "Sarramanka"[1], facilitated the coding process by allowing us to enter characteristics of the NP into the program following the four categories described above.

3. Results

As a first step, we analyzed the distribution of NPs produced by the two learners in the four categories. As a reminder, IL(DET + N) and OMISS correspond to idiosyncratic NPs, whereas the categories DET + N and 0CORR are correct, in principle, from a TL perspective. The two latter types of forms may be an indication of the grammaticalization process in an emerging determiner system.

In the analyses of the NP productions of both learners, we focused on three points: (1) the presence or absence of "fillers" that appear to be similar to those attested in the productions of French-speaking children; (2) phenomena that could be a result of SL influence (Spanish or Arabic); (3) phenomena that are found in the productions of both learners, regardless of the SL. In what follows, we first consider the distribution of NPs in the four major categories, and then take a closer look at the categories IL(DET + N) and DET + N and their development in the productions of both learners.

3.1. Distribution of NP in Four Major Categories: An Overview

As seen in Figure 1, Berta's overall development with respect to determiners is quite coherent. As of cycle 2, occurrences in the category DET + N (correct forms) increase while IL(DET + N) (incorrect forms) diminish. The most uncommon forms in Berta's data as of cycle 2 are omissions, both correct ones (0CORR) and incorrect ones (OMISS). The slight fluctuations in development are difficult to explain given the small number of occurrences.

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1 Sarra El Ayari, research engineer for CNRS research lab *Structures Formelles du Langage*, designed an annotation tool for linguistic corpora based on the CHAT format. We used the tool to verify and process earlier transcriptions and to annotate the data for this study. The web application for this tool will be available at no cost on the TGIR Huma-Num infrastructure in the foreseeable future.
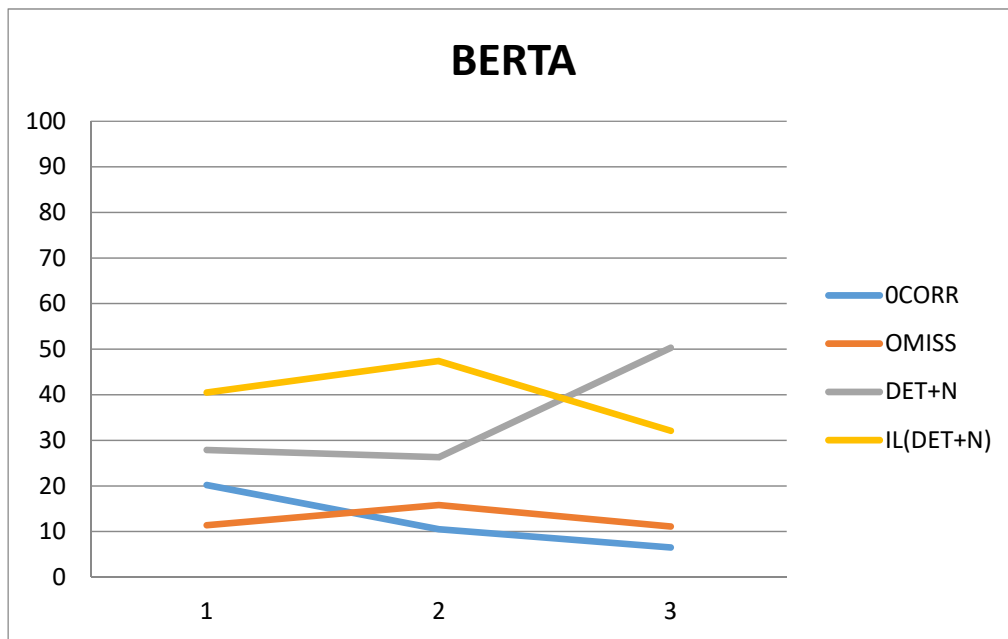
Figure 1. Berta—The distribution of nouns by category, shown as a % of the total number of occurrences of nouns analyzed in each cycle.

Zahra, on the other hand, produced a larger number of nouns in DET + N (correct forms) than Berta, but these decreased in number over the three cycles (see Figure 2). At the same time, we observe a smaller number of nouns in the category IL(DET + N) (incorrect forms), which increased slightly between cycles 1 and 2 and became stable. This result is difficult to explain without a more detailed analysis of these categories.

With respect to incorrect omissions, Zahra produced slightly more than Berta, and they increased during cycle 3. Both learners produced correct omissions in similar numbers, however, especially in cycles 2 and 3.
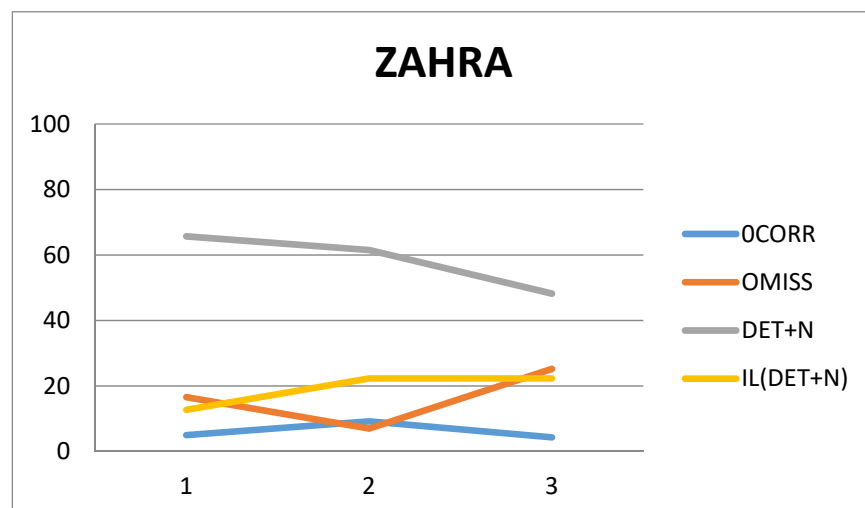

Figure 2. Zahra—The distribution of nouns by category, shown as a % of the total number of occurrences of nouns analyzed in each cycle.

The majority of items produced in the category of correct omissions (0CORR) by both learners were proper nouns, such as names of places, days of the week or months. Berta also used expressions like *en espagnol* 'in Spanish' or *en voiture* 'in car', which do not require an article in French. The number of productions with correct omissions was minimal for

both learners, but interestingly, Zahra produced 11 different items in this category, whereas Berta produced 27.

Productions in the category of incorrect omissions (OMISS) were not very frequent and were a bit higher in Zahra's data (a total of 16.4% in three cycles) than Berta's (a total of 12% in three cycles). This difference may be due to SL influence in that the pre-nominal position, reserved in French and Spanish for an article, is not systematically occupied by a detached article in Moroccan Arabic (see Section 2.2).

If we combine all the productions of bare nouns in OMISS and 0CORR produced over the three cycles by both learners, we observe that their use of these forms is fairly low (23%). This result could be interpreted in terms of the influence of French, a language in which the use of articles is strictly constrained. With respect to the categories DET + N (correct forms) and IL(DET + N) (incorrect forms), approximately 70% of nouns produced by each of the two learners fit these two categories. Given that these categories represent the majority of Zahra's and Berta's NP productions, we take a closer look at these in what follows.

3.2. Category IL(DET + N)

The category IL(DET + N) (incorrect forms) comprises several subcategories, in which the type of NP produced can have several different internal structures (see Table 2). The determiner may appear in an idiosyncratic form (labelled as IL for "interlanguage") or may resemble a TL monosyllabic determiner that corresponds to some sort of "filler", coded here as "FILL". A detailed analysis of these forms in Section 3.2.1 allows us to compare fillers in our data with fillers produced by children in French L1. In addition to monosyllabic forms, we also observe forms that are TL-like. These forms, coded [lE], appear to correspond to the singular masculine definite article *le* or the plural masculine or feminine definite article *les*. In the absence of native pronunciation and a clear context that reveals the distinction between the masculine singular and the plural form, this form in our learner productions remains ambiguous. We also observe complex constructions used to express quantification, such as *beaucoup [lE/dE]* 'many/much', or the indefinite as in *[tu lE] classes* (*toutes les classes* 'all classes') in which the element produced shows no agreement for gender.

The determiner can also be expressed in the form of the TL or the SL of the learner, as is the case with Berta. These different types of determiners appear with nouns that can also be expressed by means of TL, SL or idiosyncratic (IL) forms. The determiner-noun pair may both represent TL forms; when such forms appear in this category, this indicates that some sort of agreement problem has occurred between the determiner and the noun (e.g., *le sœur*—the correct form is *la sœur* 'the sister'). Table 2 summarizes these different subcategories.

Table 2. Subcategories of IL(DET + N).

DET	Noun	Example + (Corresponding TL Form)
FILL (filler)	IL	*[an avans]* (une promotion)
	TL	*[li] arabe/[u] mois* (l'arabe/un mois)
IL	IL	*[lE lelev]* (les élèves)
	TL	*[lE] femme(s)* (la/les femme(s))
	SL	*beaucoup [dE] oportunidad* (beaucoup d'opportunités)
SL	IL	*el [primje]* (le premier)
	TL	*el problème* (le problème)
TL	IL	*à la [nieS]* (à la neige)
	SL	*le problema* (le problème)
	TL	*la vacance(s)* (les vacances)

3.2.1. Does "Filler" Exist in L2?

According to our initial hypothesis, there are no fillers in L2 of the same nature as the L1 fillers described in first language acquisition research (see introduction). Fillers in French L1 are monosyllables in the pre-nominal position that gradually disappear with

the development of the determiner system. In our L2 data, we observe few occurrences of monosyllabic pre-nominals (FILL), even if Berta produces more of these than Zahra (see Tables 3 and 4).

Table 3. Berta: Number of occurrences of monosyllabic pre-nominals (FILL) in IL(DET + N).

	Cycle 1	Cycle 2	Cycle 3	Tot
IL(Det + N)	32	37	48	117
FILL + IL/TL	10/32 (31.2%)	5/37 (13.5%)	10/48 (20.8%)	25/117 (21.4%)

Berta produces monosyllables that appear to be influenced by Spanish phonology. Certain forms are likely precursors to the indefinite article *([u], [a]/[an], [de])*, whereas others may be precursors to the definite article *([lo], [delo], [del])*. These forms precede nouns in TL or idiosyncratic forms (IL).

1

a. Berta, FILL + IL (cycle 3)

Susana	[se][2]	[an]	[fil]	très	très	sérieuse
Susana.N	it's.V IL	[an].Det FILL	girl.N	very.Adv	very.Adv	serious.Adj

'Susan is a very very serious girl'

b. Berta, FILL+TL (cycle 1)

pour	Noël	[Zatănde]	[lo]	papa	Noël
For.Prep	Christmas.N	wait.V IL	[lo].Det_FILL	daddy.N	Christmas.N

'For Christmas wait for Santa Claus'

Zahra, on the other hand, produces few monosyllabic pre-nominals, only four occurrences in the three cycles.

Table 4. Zahra: Number of occurrences of monosyllabic pre-nominals (FILL) in IL(DET + N).

	Cycle 1	Cycle 2	Cycle 3	Tot
IL(Det + N)	14	32	31	77
FILL + SL/TL	1/14 (7%)	3/32 (9.3%)	0/31 (0%)	4/77 (5.2%)

Looking at these four occurrences from a qualitative perspective, we observe an occurrence of *li* in the first cycle in a sequence where Zahra is talking about the Arabic language (*[li] arabe*). In the second cycle, she produces two forms: *[lo]* in *lo gâteau* 'the cake' and *[du]* when speaking of an Arabic festival, at which point we observe a hesitation (*[lE]/[du] mouloud*). This sequence represents an immediate uptake of the French interlocutor's comment (*la fête du mouloud 'festival of Mouloud'*) and suggests a problem in pronouncing the contracted article *du*. Such idiosyncratic forms, whether produced by Zahra or Berta, differ from TL forms but appear in contexts where the link to definiteness is predictable.

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[2] The ambiguous verbal forms are transcribed phonetically in the ESF corpus to avoid overinterpretations in the data analysis. In our examples, we gloss them as V-IL (the idiosyncratic form of the verb).

2. Zahra, FILL + TL (cycle 1)

I	à partir de	huit	ans	ils	apprennent	le	français ?
	Since.Prep	eight.Num	years.N	they.Pron	learn.V-3p-Pl-Pres	the.Det-Sg-Masc	French-N
	'Since 8 years old they learn French'						
Z	oui						
	Yes-Adv						
	'Yes'						
I	d'accord						
	All right-Adv						
	'all right'						
Z	[lekrije]	[lira]	[parle]	[li]	arabe		
	Write.V_IL	read.V_IL	speak.V_IL	Det_FILL	Arabic.N		
	'write, read, speak Arabic'						

Productions like [li] are not simple phonological fillers like those found in child L1 data, but rather, idiosyncratic forms that reveal trouble pronouncing a given TL form.

The quantitative difference in the monosyllabic productions of Berta and Zahra can be explained by SL influence. In Berta's productions, these resemble forms in Spanish. They are based on *"l"* in an attempt to produce the French definite article in which *"l"* is a component (*le/la/les*). Forms like *[an]* are the result of trying to reproduce the nasal sound in the indefinite article *un*. The fact that Berta produces more of these forms than Zahra could be due to the similarities between SL Spanish and TL French given that the category of article in Spanish and French function in similar ways. The determiner system in Moroccan Arabic, however, is quite different from French. The indefinite article is optional and the definite article merges with the noun; *"l"* is added to the beginning of certain nouns. To this end, Moroccan Arabic does not have a detached systematic monosyllabic unit that precedes the noun. When Zahra does produce determiners in French, they clearly resemble French determiners.

3.2.2. Development in the Category IL(DET + N)

Aside from fillers, the analysis of other types of determiners within the category IL(DET + N) allows us to observe SL and TL influence, as well as to identify common stages of development. In this section we present a qualitative analysis of the development of Zahra's and Berta's productions.

Zahra

Figure 3 shows the evolution of the subcategories of IL(DET + N). The less frequent subcategories (FILL + N, IL + SL, IL + IL) have been merged into "other" as they only represent a total of 13 occurrences.
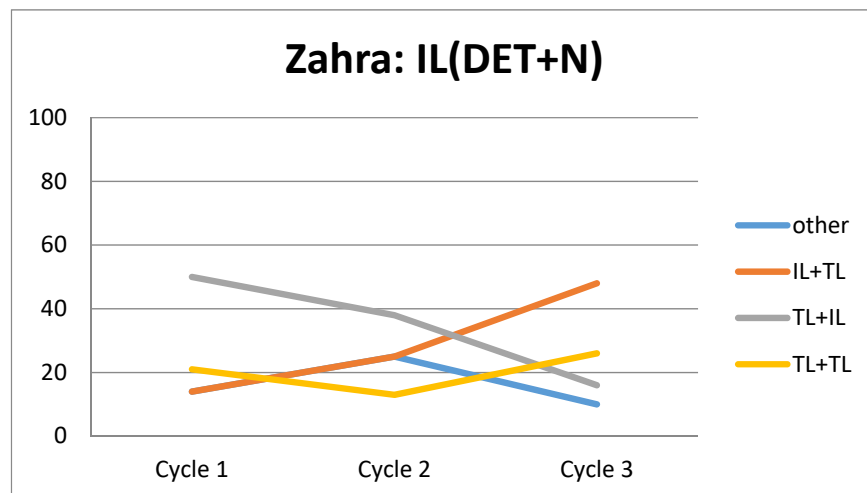

Figure 3. IL(DET + N)—Zahra.

TL determiner use with an idiosyncratic noun (TL + IL) gradually decreases as the subcategory TL + TL appears; this occurs when the two elements are TL forms but there is no agreement between the determiner and noun. This tendency shows a progression in that idiosyncratic nouns are replaced by TL nouns. At the same time, occurrences in the subcategory IL + TL increase. Given that, in this case, the determiner IL contains complex forms like *beaucoup [lE]* or *[tu lE]/[tu la]* which accompany a TL noun, this appears to be a progression in the acquisition of the L2 determiner system as well.

If we analyze the subcategory IL + TL in more detail—these represent the majority of productions in the category IL(Det + N)—we find three major types of idiosyncratic forms surrounding the determiner:

(1) analytical forms of the type *à le* instead of the French contracted article *au*;

3. Zahra, IL + TL (cycle 3)

I	ton	mari	il	était	malade?
	Your.Det-Poss	husband.N	he.Pron	be.V-3p-Sg-Past	sick-Adj
	'your husband was he sick?'				
Z	ouais	mal	à	le	rein
	Yes-Adv	pain.N	to.Prep	the.Det-Def-Sg-Masc	kidney.N
	'yes, kidney pain'				

(2) composed forms with *beaucoup* 'many' and *tout* 'all' followed by an article that is usually definite, first in the singular, then in the plural (cycle 3);

4. Zahra, IL + TL (cycle 2)

I	tu	as	repris	le	travail ?
	You.Pron	have.Aux	take back-V-2p-Sg-Past	the.Det-Def-Sg-Masc	work.N
	'have you gone back to work?'				
Z	oui	[jãna]	beaucoup	[lE]	travail
	Yes.Adv	there is.V_IL	a lot.Adv	the.Det-IL	work.N
	'yes there is a lot of work'				

(3) an ambiguous form, [lE], which is phonetically close to the definite plural but for which gender and number are difficult to ascertain (see example 11).

The form [lE] is used for referents that we attribute to having a singular value that is either specific (*tissu* 'material', *fil* 'thread') or generic (*femme* 'woman').

Regarding TL + IL, the other dominant subcategory, almost all determiners in this group correspond to the singular feminine definite article *la*, and all the idiosyncratic nouns can be recognized as TL nouns. The NPs of quantity that use partitive articles followed by adjective phrases pose gender agreement problems (e.g., *de l'eau froid/frais* 'cold water'—the appropriate target form is *de l'eau froide/fraîche*), as do numerals and *tout* 'all' with nouns preceded by "*l*" when the initial sound is a vowel.

Finally, we find a certain number of complex NPs such as *la fête le carême, la fête la mouton* or *la fête maroc* 'celebration of Lent, celebration of the lamb, Moroccan holiday celebration'. This nominal composition process using juxtaposition is also used with possessive determiners (e.g., *la famille mon mari* 'the family my husband') during cycle 3.

5. Zahra, TL + IL (cycle 3)

oui	moi	[pense]	samedi	[parti]	à	Nice
Yes.Adv	me.Pron	think.V_IL	Saturday.N	leave.V_IL	to.Prep	Nice.N
'yes I think Saturday I go to Nice'						
[jãna]	**la**	famille	mon	mari		
there is.V_IL	the.Det-Def-Sg-Fem	family.N	my.Det-Poss	husband.N		
'my husband's family is there'						

The subcategory TL + TL represents, in particular, the cases where the NPs produced show a problem of gender agreement, notably with inanimate nouns (e.g., *le radio, la laboratoire*). We identified one occurrence of an animate noun with gender motivated

semantically (*le mère espagnole* 'the mother Spanish'). We also observe overgeneralization in the use of articles in front of proper nouns (*le Noël, la Paris, à la France*).

Berta

In Berta's productions, we observe a growing diversification of the subcategories in IL(DET + N), as shown in Figure 4.

Overall, we find a notable decrease in SL influence in determiner use and a progressive increase in TL determiner use (with IL or SL nouns) between cycles 2 and 3. The dominant fillers in cycle 1 decrease in cycle 2 but are still used in cycle 3. This observation is in line with research on the learner's cognitive work (Klein and Perdue 1997), which in Berta's case, attests to the development of the L2 determiner forms and system.
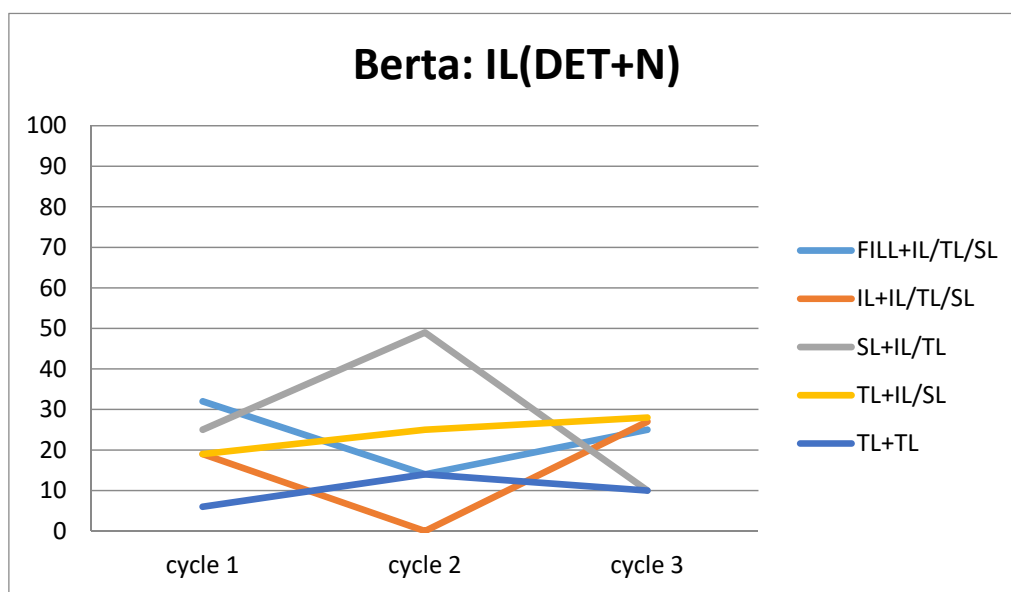
Figure 4. IL(DET + N)—Berta.

The most common subcategories in Berta's productions are SL + TL and TL + IL. In the NPs of the subcategory SL + TL, most determiners resemble the masculine definite article *el* in Berta's L1 Spanish, either in its base form (*el*) or contracted (*del*), followed by a masculine noun in TL French (e.g., *el rendez-vous* 'the meeting', *del tableau* 'of the painting'). The TL noun generally shows correct agreement for gender, but with a SL determiner. We observe the use of the feminine determiner in the definite (*las personnes* 'the people') and the indefinite (*una personne* 'a person'), but the occurrences are minimal. These forms, which are clearly influenced by the SL, are most present in cycle 2.

6. Berta, SL + TL (cycle 2)

en	**el**	mois	de	mars
In.Prep	the.Det-Def_SL	month.N	of.Prep	March.N
moi	[ale]	avec	elle	
me.Pron	go.V_IL	with.Prep	her.Pron	

'in March I go with her'

Concerning the subcategory TL + IL, feminine singular definite articles of the TL are the most common, followed by feminine nouns that are identifiable in French despite deviant pronunciation (e.g., *la [kusin]* for *cuisine* 'kitchen'). Contracted articles are also present in the production data, with the feminine (*à la, de la*) being the most common, followed by the masculine (one occurrence of *au*). The masculine is produced the least, with the definite form (*le [direktor]* 'the director') and, in cycle 3, the indefinite (*un [tesorjer]* 'a treasurer').

7. Berta, TL + IL, (cycle 1)

I	et		ça	serait	à		Créteil
	and.Conn		this.Pron	be.V-3p-Sg-Cond	in.Prep		Créteil.N
	tu	crois ?					
	you.Pron	think.V-2p-Sg-Pres					
	'and it would be in Créteil, you think?'						
B	à		Château Mitry	à		la	[prefektura]
	at.Prep		Château M.N	in.Prep		the.Det-Def-Sg-Fem	prefecture.N
	'In Château Mitry at the prefecture'						

In the subcategory IL + TL, we observe the idiosyncratic use of quantifiers with *beaucoup [dE]* 'many/much of' or the indefinite determiner (*tout* 'all') followed by a noun. These forms (e.g., *beaucoup de chiliens* 'many (of) Chileans'; *[tu] les classes* 'all the classes') reveal a potential problem with agreement given that the phonetic realization, which is somewhere between *de* and *des*, is ambiguous. We also notice an analytical form of the contracted masculine article (e.g., *à le cours* 'in the course') and numerals with pronunciation that results in ambiguity (e.g., *[du]/[dus]* 'two/twelve').

8. Berta, IL + TL (cycle 2)

y	maman	[e]	malade	y	[ʒe]
and.Conn-SL	mommy.N	be.V_IL	sick.Adj	and.Conn_SL	I.Pron
[nepa]	[sorti]	à	le	cours	
no. Neg	exit.V_IL	in.Prep	the.Det-Def-Sg-Masc	class-N	
'and mommy is sick and I don't go to school'					

As with Zahra, the subcategory TL + TL includes idiosyncratic nominal forms that show problems of gender agreement with inanimate nouns (e.g., *un fête/un réunion* 'a party/a meeting') even though, in Berta's case, these nouns mark the same gender as in the SL. We also note that the possessive is overgeneralized, as in *mon mari de ma soeur de mon mari* 'my husband of my sister of my husband'.

Finally, in IL + IL, the determiner is the most frequent when it carries the value of a quantifier (*beaucoup [dE]* 'many/much of', *tout la/[lE]* 'all the') and the NP shows a problem of agreement of gender (*[tu] la [komun]* 'all the town').

9. Berta, IL + IL (cycle 3)

[ilja]	un	petite	fête	por
there is.V_IL	a.Det-Indef-Sg-Masc	little.Adj	party.N	for.Prep_SL
[tu]	**[lE]**	[lelev]		
all-Adj	the-Det_IL	students-N		
'there is a little party for all students'				

3.3. The Category DET + N

The NPs in the category DET + N are, in principle, correct from the point of view of the TL. In this section, we analyze the distribution of different classes of determiners as well as the effect of gender and number. In order to verify if the produced forms in this category properly reflect NP grammaticalization, we assume that the more learners use the same noun with different types of determiners, the more advanced their analysis of the determiner system is.

Given the small number of occurrences, the evolution of productions across cycles is not always clear. Hence, to analyze the type of determiner in category DET + N, the three cycles were calculated together.

As seen in Figure 5, even though Zahra uses the definite article more than other determiners, she also uses other types of determiners. We find, however, a larger diversification of determiners in Berta's data.
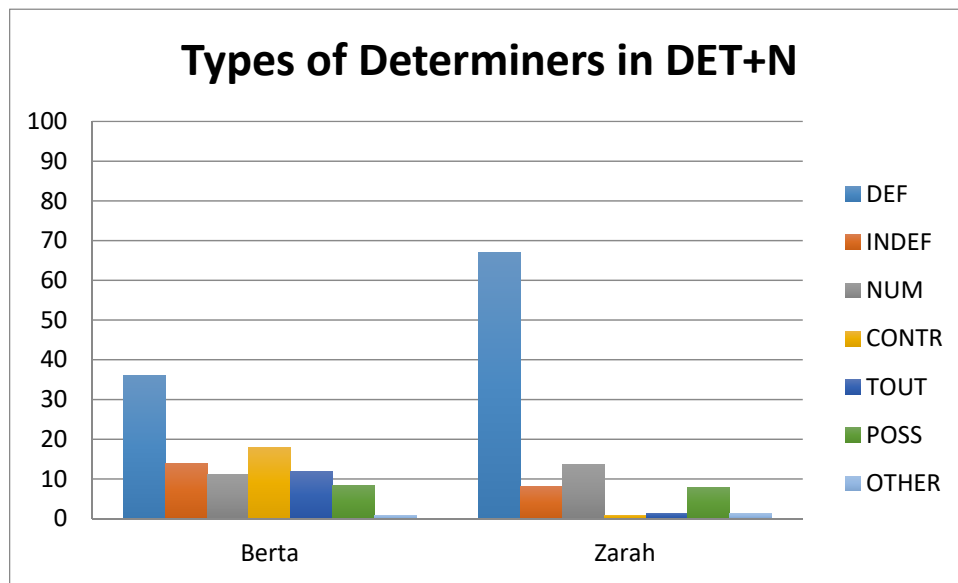
Figure 5. Types of determiners in the category DET + N. Abbreviations: DEF = definite; INDEF = indefinite; NUM = numeral; CONTR = contracted determiner (*au/à la*); TOUT ('all') = indefinite determiner; POSS = possessive; OTHER = other very rare forms.

Before discussing the definite article in more detail—the form used most frequently by both learners—we will first comment on the less frequent determiner types.

3.3.1. Less Frequent Determiners

The indefinite article is much less frequent than the definite article in the productions of our two learners. As seen in Table 5, occurrences are minimal in all three cycles.

Table 5. Distribution of the indefinite article (gender and number) in DET + N of Berta's and Zahra's productions.

Berta 17/119 (14.3%)	Indefinite Article	Raw Number (%)	Zahra 17/214 (7.9%)	Indefinite Article	Raw Number (%)
	fem sg	0 (0%)		fem sg	6 (35.3%)
	fem plur	6 (35.3%)		fem plur	2 (11.7%)
	masc sg	7 (41.1%)		masc sg	9 (53%)
	masc plur	4 (23.5%)		masc plur	0 (0%)

Another type of determiner used by Berta and Zahra is the numeral. Zahra uses numerals most often with four distinct nouns *mois, jours, heures, ans* 'months, days, hours, years', whereas Berta uses them with five different nouns *mois, fois, enfants, personnes, réunions* 'months, times, children, persons, meetings'. From a communicative perspective, numerals are used to express the precise quantity of specific entities, and hence, they do not apply to just any entity. This is perhaps why the use of this type of determiner is restrained to a limited number of items.

Contrary to Zahra, Berta uses different forms of the contracted article (*au* and *à la*), which suggests a higher level of NP complexity. Similarly, the use of *tout* requires agreement, which poses problems for learners, as shown in the analysis of productions in the category IL(DET + N). Finally, we observe a similarity in their use of possessives. In Zahra's productions, the most commonly used possessive is *mon* ('my'—masculine), used only with the noun *mari* 'husband'. Given this unique usage of *mon*, the segment *mon mari* 'my husband' is most likely a non-analyzed chunk. The form *ma*, on the other hand, is used with *voisine* 'neighbour', *fille* 'girl', and *copine* 'girlfriend'. Berta uses *mon* like Zahra

does, only with the noun *mari*, but she also uses *ma* ('my'—feminine) with nouns like *sœur* 'sister' and *maison, femme, famille* ('house, wife/woman, family').

3.3.2. The Definite Article

Figure 6 shows the distribution of gender and number in the category of definite articles. This overview suggests a preference for the singular form in the data of both learners. There is also a clear preference for the feminine singular in Berta's productions, whereas in Zahra's productions, both the feminine and masculine singular are present.

As a reminder, our claim has been that the more learners use the same noun with a variety of determiners, the more advanced their acquisition of the determiner system is. To this end, examining the percentage of the number of occurrences in DET + N (correct forms) is not sufficient for measuring the progress of the determiner system in acquisition. This is why when analyzing the distribution of gender and number in determiners, we take into account the number of occurrences in the combined "determiner + N" configuration, calculating the number of different determiners used with a given noun.
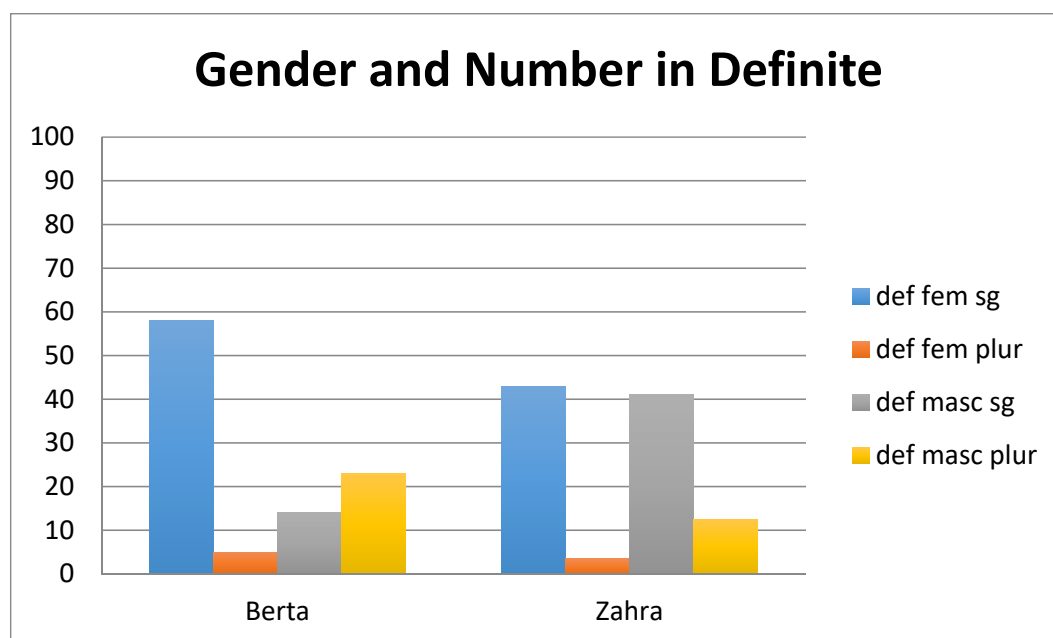
Figure 6. The distribution of gender and number in definite articles used by Berta and Zahra.

Gender

As seen in Figure 6, Berta uses the feminine singular article *la* more than the masculine singular *le*. In Zahra's data, the feminine singular is slightly more frequent (except for cycle 2).

Feminine singular: DET + N (la + N)

In Zahra's productions, out of 62 occurrences of NP "la + N", 54 are NPs constructed with 20 different nouns. This corresponds to 87% (54/62). In other words, these 20 nouns were used only with *la* and never appeared with another determiner.

In Berta's productions, out of the 25 occurrences of NP "la + N", 18 are NPs constructed with 12 different nouns, corresponding to 72% (18/25). In contrast to Zahra's 20, Berta only uses 12 nouns exclusively with *la*. The tables in Appendix A include the repertoire of the different nouns and noun-determiner combinations used by our two learners. For example, the noun *maison* 'house/home' is used by Zahra 12 times only with *la* in contrast to Berta, who uses it 5 times with three different determiners.

Masculine singular: DET + N (le + N)

Turning now to the masculine definite article *le*, Berta only produces this article four times and with four different nouns that are never used with other articles.

In Zahra's productions, out of 59 occurrences of NP "le + N", 52 are NPs constructed with 25 different nouns, corresponding to 88.1% (52/59). In other words, Zahra produces more NP "le + N" than Berta, but 88.1% of the NPs contain nouns that appear with no other article than the definite article *le*.

The most frequent nouns used only with *le* are *docteur* 'doctor' (9), *maroc* 'Morocco' (5), *patron* 'boss/supervisor' (7). The table in Appendix B presents the complete repertoire of nouns.

Number

As can be seen in Table 6, the use of plural definite articles (i.e., the TL form *les* and idiosyncratic forms) is sporadic and represents a small number of occurrences.

Table 6. Number of occurrences of plural definite articles.

	Zahra				Berta			
	Total	Cycle 1	Cycle 2	Cycle 3	Total	Cycle 1	Cycle 2	Cycle 3
Definite + N	**144**	47	55	42	**42**	8	4	30
Masc plur	**18 (12.5%)**	6/47 (12.8%)	7/55 (12.7%)	5/42 (11.9%)	**11 (26%)**	2/8 (25%)	1/4 (25%)	8/30 (26.6%)
Fem plur	**5 (3.5%)**	4/47 (8.5%)	0/55 (0%)	1/42 (2.4%)	**2 (4.8%)**	1/8 (12.5%)	0/4 (0%)	1/30 (3.4%)

As mentioned above, we can only consider the forms of the definite masculine and feminine plural article (*les*) in the learners' productions when they can be interpreted as such from the context in which they were produced. The article *les* creates problems of ambiguity not only for the learners, but also for researchers given that the pronunciation is not reliable. To this end, these forms were classified in DET + N as masculine and feminine plural when the context allowed us to induce the meaning and form of *les*. When the context and pronunciation are ambiguous, we are not able to determine, for example, whether [lE] corresponds to *le* or *les*. It is also possible that [lE] produced with a feminine noun reveals a problem of gender agreement (e.g., *le sœur*). In this case, [lE] is categorized in IL(DET + N) (see Section 3.2).

10. Clear context (Berta) (cycle 3)

parce que	[ilja]	les	parents
because.Conj	there is.V_IL	the.Det-Def-Masc-Plur	parents-N
que	le	profesor	[konep]	jamais
that.Conj	the.Det-Def-Masc-Sg	professor.N	know.V_IL	never.Adv

'because there are parents that the professor never knows'

In this example, *les* is interpreted as having the value of the plural definite article.

11. Ambiguous context (Zahra) (cycle 3)

oui	**[IE]**	femme(s)	ne	[travaj]	pas
yes.Adv	Det-IL	women.N	not.Neg	work.V_IL	not.Neg
[se]	facile				
it's.V_IL	easy.Adj				

'yes the women don't work, it's easy'

This utterance follows the interviewer's question: "for a woman who doesn't work, it is easier to manage the house?"

In this example, [IE] may correspond to *les* and carry the value of the feminine plural definite article. Its use can also suggest a problem of agreement between the article *le* and the feminine noun. Because of this ambiguity, occurrences of the plural definite article *les* pronounced as [IE] are rare in DET + N. Only animate nouns with natural gender used in a

plural context can be placed into this category with absolute confidence. When it comes to the production of animate nouns by our two learners, we observe a preference for the definite masculine plural in both learners, with words such as *enfants* 'children', *parents* 'parents', *clients* 'clients', *copains* 'friends'.

When the article *les* appears in front of inanimate masculine nouns in the plural, it may be ambiguous except for cases where the same noun is used with another article or a singular form. This is the case with the word *gâteaux* 'cookies' in Zahra's productions; she uses *gâteau(x)* in the singular with the definite or indefinite article and in the plural with a numeral.

Amongst the feminine nouns in the plural preceded by the definite article *les*, we observe only inanimate nouns, with two occurrences in Berta's data and five in Zahra's.

Definite Article in DET + N and in IL(DET + N)

The two learners' preferences for the singular definite determiner confirms tendencies found in other L2 research, as well as in first language acquisition studies conducted by Bassano and colleagues.

With respect to gender, the singular masculine definite seems to be treated by children as a base article. Bassano et al. (2011) reminds us of theories, such as Lyons (1999), where this form is introduced as unmarked and implies identifiability and unicity. This characteristic of *le* is only found in Zahra's productions, not in Berta's.

The feminine article *la*, which is regularly produced by both learners is more easily perceived in the input. Bassano et al. (2011) offer an explanation in terms of the phonological saliency of the vowel *"a"* of the feminine form in contrast to the schwa of the masculine article *le*. Moreover, the feminine definite article is clearly distinct from other forms (*la* vs. *le/les*), whereas the masculine form is ambiguous (*le/les*) and can be more difficult for beginning learners to identify and produce.

The general tendency to use the feminine singular definite article is in line with the preferred use of the feminine singular definite article in the category IL(DET + N) where the determiner is TL-like regardless of the nature of the noun (TL, IL, SL). Despite a small number of occurrences, the masculine singular definite article is found in Zahra's data but not in Berta's, in a similar fashion to the category DET + N. This can be seen in Table 7.

Table 7. The use of the TL definite article in the category IL(DET + N).

DET	Gender/Nb	Berta N = 30			Zahra N = 36		
		Cycle 1 (*n* = 8)	Cycle 2 (*n* = 13)	Cycle 3 (*n* = 10)	Cycle 1 (*n* = 9)	Cycle 2 (*n* = 14)	Cycle 3 (*n* = 15)
Definite	fem sg	62% (5/8)	46% (6/13)	0 (0%)	11.1% (1/9)	71.4% (10/14)	53.3% (8/15)
	fem plur	0 (0%)	0 (0%)	0 (0%)	0 (0%)	7.1% (1/14)	0 (0%)
	masc sg	12.5% (1/8)	0 (0%)	44.4% (8/18)	33.3% (3/9)	14.2% (2/14)	20% (3/15)
	masc plur	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other [3]		25.5% (2/8)	54% (7/13)	55.6% (10/18)	55.6% (5/9)	7.1% (1/14)	73.3% (4/15)

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[3] The category "other" refers to the less frequently used target language determiners in IL(DET+N), such as indefinite articles, numerals, contracted articles, possessives and demonstratives.

3.3.3. Lexical Repertoire and Article Usage in DET + N

To complete our analysis of the category DET + N, we examined the repertoire of nouns produced in this category and identified the nouns that were used with more than one type of determiner. If a noun is used with only one type of article, it is not possible to eliminate the possibility that the learner memorized an "article + noun" unit, even if the number of occurrences of this noun is high.

In Zahra's recordings, six nouns in the category DET + N were used with different types of determiners (see Table 8). Note that these nouns are not the most frequent words in Zahra's productions. Those that are most frequent are always accompanied by the same article (*le docteur* 'the doctor'—9, *la maison* 'the house'—12, *mon mari* 'my husband'—13, numeral + *heures* 'hours'—10).

Table 8. Zahra—The different types of determiners used with the same nouns.

Noun	Cycle 1	Cycle 2	Cycle 3	ArtDef
Couture (3)	**(1) ArtDef**		**(1) ArtDef** (1) ArtIndef	2
Fille (2)	(1) Poss	(1) ArtIndef		
Gâteau (6)		**(5) ArtDef** (1) ArtIndef		5
Gâteaux (2)		**(1) ArtDef** (1) Num		1
Soupe (7)			**(6) ArtDef** (1) Interrog	6
Travail (4)	(1) Dem	**(1) ArtDef**	**(2) ArtDef**	3
Tot: 27	3	10	11	17/27 (70.8%)

Even if the noun is used with different types of articles, the definite article remains dominant. This preference for the definite article coincides with our result in Section 3.3.2 where we observed a high number of occurrences of the same nouns always preceded by a definite article.

Berta produced seven nouns that are accompanied by different types of determiners as seen in Table 9. In contrast to the nouns produced by Zahra, these nouns are also the most frequent, used between four and eight times across the three cycles, with the exception of *argent* 'money'. In addition, determiners are more diversified and the definite article is no longer dominant.

Table 9. Berta—The different types of determiners used with the same nouns.

Noun	Cycle 1	Cycle 2	Cycle 3	ArtDef
Argent (2)			(1) Part (1) DetInd	0
Enfants (6)	**(1) Artdef** (1) Num	(1) Num	**(3) ArtDef**	4
Ecole (4)			**(3) ArtDef** (1) Contracted	3
Fois (5)		(1) ArtIndef (1) Num	(2) ArtIndef (1) Num	
Maison (5)		(1) Contracted	(1) Poss (2) Contracted **(1) ArtDef**	1

Table 9. *Cont.*

Noun	Cycle 1	Cycle 2	Cycle 3	ArtDef
Mois (7)	(2) Num	(4) Num	(1) DetInd	
Parents (8)			**(3) ArtDef** (5) DetInd	**3**
Tot. 37	4	8	25	11/37 (29.7%)

If we return to Figures 1 and 2, we observe that the higher percentage of DET + N use in Zahra's productions compared to Berta's does not necessarily indicate that Zahra is at a more advanced level than Berta. The capacity to use the same noun with different types of articles is more visible in Berta's data than in Zahra's even if we consider the nouns attested with different determiners (see Tables 8 and 9). In fact, in Zahra's productions, 70% of the 24 NPs that she uses with 6 different nouns have a definite article (17/24). In Berta's productions, on the other hand, only 29.7% of the 37 NPs that she uses with 7 different nouns have a definite article (11/38).

4. Discussion

Our results contribute to an understanding of the emergence of the determiner as a grammatical category in L2 French. Results also relate to L1 development as observed in research cited above and to the differences between the SLs of the learners studied. In what follows, we discuss our three research objectives in relation to these results.

4.1. Do Fillers Exist in L2?

Whereas children produce phonological fillers without clear functional distinctions, the adult learners of this study produced, early on (cycle 1), monosyllabic pre-nominals that are not assimilable to TL articles in terms of their form. These productions are idiosyncratic forms whose function is not solely to fill the position of "determiner"; they are characterized by identifiable functions in terms of definiteness and indefiniteness. However, proto-determiner use, usually influenced by SL phonology, is more marked in Berta's productions than in Zahra's (25 vs. 4 total occurrences), suggesting that the typological proximity between the SL and TL can influence the productivity of these idiosyncratic forms.

4.2. Divergences—What Is the Influence of the SL?

Contrary to monolingual children learning French, adult learners have knowledge of their SL, which can influence the acquisition of the NP in L2 French. Our Arabic and Spanish speakers constructed the TL determiner system differently, at least partially. The major difference lies in the means used to express determination. Berta's learner variety reveals rich idiosyncratic forms borrowed from both the SL and TL. Zahra's learner variety appears to be less influenced by her SL and conforms better to the TL with a larger number of DET + N forms and less variation in terms of types of determiners and lexical items. A large number of these non-idiosyncratic forms appear to be non-analyzed forms produced in chunks. Our analyses suggest that Zahra attempted to reproduce the frequent forms taken from the input, to which she had been exposed for a longer period of time than Berta, and she applied what appear to be stable hypotheses to the French determiner system. Berta, on the other hand, was destabilized by the linguistic proximity between her SL and the TL, was less influenced by the input and worked more on analysis, regularly testing hypotheses on the functioning of the TL. Hence, the learner's own rules became more critical (in the sense of Klein 1984) without necessarily leading to a stability of forms, which continued to be primarily idiosyncratic through cycle 3. We observe, nevertheless, that Berta produced a larger variety of determiners when speaking the TL (including contracted articles) and that agreement was more frequent (namely with *tout* 'all'). Zahra, on the other hand, had a tendency to overgeneralize the use of the definite article (especially *la*) with the same lexical items. Additionally, unlike Berta, she used processes of nominal

composition by means of juxtaposition, leaving the relationship between two nominal elements implicit. This type of nominal structure seems to reflect the pre-basic acquisitional stage during which utterances are organized around nouns and according to a pragmatic principle based on the word order of spoken French (e.g., *la famille mon mari* 'the family my husband').

The differences between our two learners in their path towards acquiring NP structures in L2 French can also be explained by the influence of schooling in the SL and instruction in the TL. As a reminder, Zahra did not attend school in Morocco and only took a few French classes upon arrival in France. In contrast, Berta attended school in Chile through junior high and she learned French in an instructed setting at the beginning of her stay in France. We can assume that this linguistic experience develops the learner's metacognitive capacity and allows for more advanced metalinguistic activity when it comes to the functioning of languages in general (Starosciak 2021).

4.3. Common Points—What Is the Influence of the TL?

In spite of the differences linked to these external factors, the determiner systems built by Berta and Zahra in L2 French share certain characteristics. The L2 input and the "language-neutral" processes that are assumed to be universal in initial acquisition in a natural setting lead to common acquisitional phenomena. The fact that the data show few determiner omissions seems to suggest that the same type of sensitivity to the input is present in both learners, regardless of their SL. The definite article was dominant and used as a default compared to the indefinite, which emerged later with fewer occurrences and with a more problematic appropriation. This phenomenon could be due to difficulties in the realm of phonetics, where the pronunciation and perceptive saliency of the singular masculine form is problematic. The fact that feminine singular forms (with or without idiosyncratic nouns) are more numerous in the production data of both learners can also be explained by the fact that the feminine singular definite determiner (*la*) is more perceptually salient than other definite determiners (*le/les*). The plural determiner appears later, and both learners had trouble producing *les* and *des* in a non-ambiguous manner; forms that are not pronounced in a target-like way appeared in their recordings, accompanied by lexical items that are clearly identifiable with respect to gender.

We also observed common problems in the expression of quantity with *beaucoup de*, which agrees in number *([dE]* in Berta's data, and *[lE]* in Zahra's). Expressions of quantity can also take the form of a quantifier (e.g., a numeral, *tout [lE]* 'all', *beaucoup ([dE]* 'many/much') followed by *"l"* and a TL noun with an initial vowel (e.g., *trois l'enfants* 'three children'). Finally, the two learners rarely marked internal NP gender agreement with inanimate nouns, which suggests that when gender is not motivated semantically, it is difficult to use.

In sum, the following phenomena appear to be shared by Berta and Zahra in the emergence of different categories of determiners:

- The definite article appears more often across the three cycles than the indefinite article;
- The singular appears earlier and in larger numbers than the plural.

This result is in line with prior L2 research results on the acquisition of French NPs conducted within the ESF project (Perdue 1993, 1995; Véronique 1986), which show that definite marking appears before indefinite marking and that singular forms appear before plural forms. The dominance of the definite over the indefinite and the singular over the plural also aligns with findings in child acquisition data as reported by Bassano et al. (2011). Furthermore, L2 studies reveal that early L2 productions of the indefinite NP show a larger number of variations than in the child L1 data, and that, to a certain extent, L2 productions are influenced by the SL.

The productions of Zahra and Berta clearly diverge when it comes to the use of the masculine and feminine singular articles. Zahra used both of the definite articles (*le* and *la*) with a slight preference for the feminine form, whereas Berta clearly favoured the feminine

article *la*. However, prior research on more advanced learners acquiring the TL in an instructional setting has shown that the masculine is considered to be the default and therefore the most produced form in L2 data (cf. Bartning 2000; Dewaele and Véronique 2000; Prodeau and Carlo 2002). Likewise, this higher frequency of the masculine form over the feminine is found in child productions even if less so than the frequency of singular over plural or definite over indefinite. The definite masculine singular tends to be the base article, which coincides with classic linguistic theories (Lyons 1999).

To explain a more systematic and frequent use of *la* in Zahra's and Berta's productions, we raised the question of the saliency of *la* in the input in "Gender" part of Section 3.3.2, like in Bassano's work. This characteristic of the input does not explain why Berta, unlike Zahra, produced the definite masculine article *le* so infrequently. It seems that the SL could be at the root of this difference. Indeed, the feminine singular definite is the same form in Berta's two languages, Spanish and French (e.g., *la casa/la maison* 'the house'), and Berta more easily establishes a relationship between these two forms, which is not the case for the Spanish definite masculine singular article *el*. These explanations need to be verified on the basis of other data collected from these same learners, who were recorded during other semi-guided production tasks, such as film narrations, descriptions and instructions.

5. Conclusions

The present study brings a new perspective to the grammaticalization of early learner varieties in L2 acquisition, in particular with respect to the French determiner system, by examining the productions of two beginning learners of L2 French and comparing them to the production data of French-speaking children. This approach clearly has its limits in that this type of comparison requires that the L1 and L2 acquisition data be in the same form, free conversations in this case. To move beyond these limits, analysis of the productions of these same learners, Berta and Zahra, in different discourse types is possible. Available as part of the ESF corpus, these data could confirm certain phenomena described in this article. Additionally, it is important to note that controlling the lexical repertoire and the category of nouns produced in free production tasks is difficult and adds to the challenges of describing a developing nominal determination system. Semi-guided tasks, however, allow the researcher to control, to a larger extent, the discourse content. Analyses of Zahra's and Berta's data collected from a film-retelling task, for instance, would be useful given that the task was designed to elicit specific lexical items, forms, structures and discourse content, allowing for a more in-depth examination of the development of these linguistic elements. In addition, this type of analysis lends itself to useful comparisons between learners and, as such, would complement the results presented here.

More generally, analyses of the data used in this study of two L2 learners suggest that similarities between the acquisitional paths of children in first language acquisition and adults in second language acquisition depend on the grammatical category analyzed by the learner. Research on the emergence of the verb phrase (Dimroth et al. 2003; Perdue 2008) demonstrates how children and adults move through similar acquisitional stages. It turns out, however, that these similarities may be less common in the acquisition of articles in French L1 vs. French L2. According to research reported by Klein and Perdue (1997), the acquisition of sentence patterns in the beginning stages of L2 acquisition is relatively impervious to the specificities of the SL or TL, as demonstrated in analyses of the acquisition of finite verb structure with a focus on utterance structure. Learners rely on principles that are shared across languages, whereby an utterance can contain three semantic units organized in the following order: Agent-Action-Patient. This could explain, to some extent at least, why the acquisitional stages in L1 and L2 are comparable when examining utterance structure. The study of the emergence of the French determiner system in our two learners suggests, however, that prior SL knowledge is potentially what differentiates adults from children.

Turning now to a comparison between our two adult learners, results of the present study show certain similarities in the development of nominal determination in French

L2 with respect to not only the integration of French determiner usage constraints (few omissions are allowed), but also the pre-eminence of certain forms over others, such as definite over indefinite, singular over plural, and feminine over masculine (even if to a lesser extent in Zahra's productions).

Our analyses also show distinct differences, however, in the acquisitional paths of these learners, linked to, amongst other factors, cross-linguistic influence. This SL effect is most prominent in Berta's productions, which reveal a clear influence of Spanish, a language that is typologically close to TL French. Furthermore, in Berta's data, an increasingly complex NP micro-system can be observed in both the diversification of NP forms and the large number of idiosyncratic forms produced. This evolution is seen across the three cycles, with an increase in correct TL forms (Det + N) and a decrease in idiosyncratic forms (IL(Det + N)).

The morphological and lexical richness of Berta's interlanguage system contrasts with the regularity of Zahra's developing system. We find less diversity and, superficially, more correct forms in Zahra's data. However, in contrast to Berta's development, correct forms in Zahra's productions decrease over the three cycles, while idiosyncratic forms increase. Our qualitative analysis shows that Zahra relied heavily on prefabricated sequences of regular combinations of determiners and lexical items, resulting in NP forms that were much less varied than those found in Berta's data. Zahra did not enter into an analysis of NP forms; rather, she reproduced them as they were, in chunks.

The two different systems of L2 language development that emerge reflect the complexity and opacity of the TL forms. Whereas Zahra's entry into the new system was more implicit and appears to correspond to the memorization of models that are appropriate for the contexts in which they are used ("exemplar-based systems"), Berta took a more explicit approach by applying rules ("rule-based systems"), whether idiosyncratic or not (Narcy-Combes 2005). Indeed, we observe Berta in the process of testing her hypotheses about how the French determiner system works.

Appendix A. Repertoire of Feminine Singular Nouns in DET + N

Table A1. Zahra: Repertoire of Nouns and Determiners (the nouns accompanied by *la* exclusively are in bold).

		Def	Indef	Poss	Contr	Dem	Num	*tout* 'all'	Interrog *quel* 'what'
1	**porte**	**1**	0	0	0	0	0	0	0
2	semaine	0	4	0	0	0	0	0	0
3	**maison**	**12**	0	0	0	0	0	0	0
4	**cuisine**	**5**	0	0	0	0	0	0	0
5	couture	2	1	0	0	0	0	0	0
6	**France**	**4**	0	0	0	0	0	0	0
7	voisine	0	0	2	0	0	0	0	0
8	**dame**	**6**	0	0	0	0	0	0	0
9	fille	0	1	1	0	0	0	0	0
10	**charge**	**2**	0	0	0	0	0	0	0
11	**lettre**	**3**	0	0	0	0	0	0	0
12	seule	0	0	0	0	0	0	2	0
13	**tête**	**1**	0	0	0	0	0	0	0
14	**famille**	**1**	0	0	0	0	0	0	0
15	**cousine**	**1**	0	0	0	0	0	0	0
16	**viande**	**1**	0	0	0	0	0	0	0
17	**limonade**	**1**	0	0	0	0	0	0	0
18	heure	0	0	0	0	0	1	0	0
19	**fête**	**4**	0	0	0	0	0	0	0
20	**grippe**	**2**	0	0	0	0	0	0	0
21	soupe	6	0	0	0	0	0	0	1
22	**farine**	**3**	0	0	0	0	0	0	0
23	année	0	0	0	0	1	0	0	0
24	**semoule**	**1**	0	0	0	0	0	0	0
25	**première fois**	**2**	0	0	0	0	0	0	0
26	**fin du mois**	**2**	0	0	0	0	0	0	0
27	**justice**	**1**	0	0	0	0	0	0	0
28	**loi**	**1**	0	0	0	0	0	0	0
29	copine	0	0	1	0	0	0	0	0
	29 items (20 items used exclusively with *la*)	**54 ***							

* This number refers to the number of occurrences of all the items used only with the definite article (these items are in bold).

Table A2. Berta: Repertoire of Nouns and Determiners (the nouns accompanied by *la* exclusively are in bold).

		Def	Indef	Poss	Contract	Part	Dem	Num	*tout*	Inter *quel*
1	année	0	0	0	3	0	0	0	0	0
2	**chose**	1	0	0	0	0	0	0	0	0
3	**cité**	1	0	0	0	0	0	0	0	0
4	clinique	0	0	0	2	0	0	0	0	0
5	école	3	0	0	1	0	0	0	0	0
6	famille	0	0	1	0	0	0	0	0	0
7	femme	0	0	1	0	0	0	0	0	0
8	**fin**	3	0	0	0	0	0	0	0	0
9	**jambe**	1	0	0	0	0	0	0	0	0
10	**langue**	3	0	0	0	0	0	0	0	0
11	**lettre**	1	0	0	0	0	0	0	0	0
12	maison	1	0	1	3	0	0	0	0	0
13	**note**	2	0	0	0	0	0	0	0	0
14	**personne**	2	0	0	0	0	0	0	0	0
15	**physique**	1	0	0	0	0	0	0	0	0
16	**primaire**	1	0	0	0	0	0	0	0	0
17	réunion	0	0	0	3	0	0	0	0	0
18	**route**	1	0	0	0	0	0	0	0	0
19	**sécurité**	1	0	0	0	0	0	0	0	0
20	sœur	0	0	3	0	0	0	0	0	0
	20 items (12 items used exclusively with *la*)	**18 ***								

* This number refers to the number of occurrences of all the items used only with the definite article (these items are in bold).

Appendix B. Repertoire of Masculine Singular Nouns in Det + N

Table A3. Zahra: Repertoire of Masculine Singular Nouns in Det + N (the nouns accompanied by *la* exclusively are in bold).

		Def	Indef	Poss	Contr	Dem	Num	*tout*	Inter *quel*
1	**docteur**	9	0	0	0	0	0	0	0
2	**bouton**	1	0	0	0	0	0	0	0
3	mois	0	0	0	0	0	7	0	0
4	**matin**	2	0	0	0	0	0	0	0
5	mari	0	0	13	0	0	0	0	0
6	**mécanicien**	1	0	0	0	0	0	0	0
7	**pied**	2	0	0	0	0	0	0	0
8	**loyer**	1	0	0	0	0	0	0	0
9	**reçu**	1	0	0	0	0	0	0	0
10	an	0	4	0	0	0	0	0	0

Table A3. *Cont.*

		Def	Indef	Poss	Contr	Dem	Num	*tout*	Inter *quel*
11	**maroc**	**5**	0	0	0	0	0	0	0
12	travail	3	0	0	0	1	0	0	0
13	**français**	**3**	0	0	0	0	0	0	0
14	**couscous**	**1**	0	0	0	0	0	0	0
15	**patron**	**7**	0	0	0	0	0	0	0
16	**contrat**	**1**	0	0	0	0	0	0	0
17	**certificat**	**1**	0	0	0	0	0	0	0
18	sapin	0	2	0	0	0	0	0	0
19	**thé**	**2**	0	0	0	0	0	0	0
20	**poulet**	**1**	0	0	0	0	0	0	0
21	**dessert**	**1**	0	0	0	0	0	0	0
22	gâteau	5	1	0	0	0	0	0	0
23	**café**	**1**	0	0	0	0	0	0	0
24	cadeau	0	1	0	0	0	0	0	0
25	**carème**	**3**	0	0	0	0	0	0	0
26	mois de juillet	0	0	0	1	0	0	0	0
27	**vent**	**1**	0	0	0	0	0	0	0
28	rein	0	0	0	1	0	0	0	0
29	papier	0	1	0	0	0	0	0	0
30	**sel**	**1**	0	0	0	0	0	0	0
31	**sang**	**1**	0	0	0	0	0	0	0
32	**lait**	**1**	0	0	0	0	0	0	0
33	**tissu**	**2**	0	0	0	0	0	0	0
34	monde	0	0	0	0	0	0	1	0
35	jour	0	1	0	0	0	0	0	0
36	**nom**	**2**	0	0	0	0	0	0	0
37	**père**	**1**	0	0	0	0	0	0	0
	37 items (25 items used exclusively with *le*)	**52 ***							

* This number refers to the number of occurrences of all the items used only with the definite article (these items are in bold).

Table A4. Berta: Repertoire of Masculine Singular Nouns in Det + N (the nouns accompanied by *la* exclusively are in bold).

		Def	Indef	Poss	Contract	Partit	Dem	Num	*tout*	Inter *quel*
1	appartement	0	1	0	0	0	0	0	0	0
2	argent	0	0	0	0	1	0	0	1	0
3	batiment	0	1	0	0	0	0	0	0	0
4	cadeau	0	1	0	0	0	0	0	0	0
5	**chemin**	**1**	0	0	0	0	0	0	0	0

<div align="center">

Table A4. *Cont.*

</div>

		Def	Indef	Poss	Contract	Partit	Dem	Num	*tout*	Inter *quel*
6	chili	0	0	0	5	0	0	0	0	0
7	copain	0	1	0	0	0	0	0	0	0
8	côté	0	0	0	1	0	0	0	0	0
9	**français**	**1**	0	0	0	0	0	0	0	0
10	**lycée**	**1**	0	0	0	0	0	0	0	0
11	mois	0	0	0	0	0	0	7	1	0
12	monde	0	0	0	0	0	0	0	2	0
13	président	0	2	0	0	0	0	0	0	0
14	**Stage**	**1**	0	0	0	0	0	0	0	0
15	Travail	0	0	0	0	0	0	0	1	0
16	Vélo	0	2	0	0	0	0	0	0	0
	16 items (4 items used exclusively with *le*)	**4 ***								

* This number refers to the number of occurrences of all the items used only with the definite article (these items are in bold).

References

Bartning, Inge. 2000. Gender agreement in L2 French: Pre-advanced vs advanced learners. *Studia Linguistica* 54: 225–37. [CrossRef]

Bassano, Dominique, Isabelle Maillochon, and Sylvain Mottet. 2008. Noun grammaticalization and determiner use in French children's speech: A gradual development with prosodic and lexical influences. *Journal of Child Language* 35: 403–38. [CrossRef] [PubMed]

Bassano, Dominique, Katharina Korecky-Kröll, Isabelle Maillochon, and Wolfgang U. Dressler. 2011. L'acquisition des déterminants nominaux en français et en allemand. Une perspective interlangue sur la grammaticalisation des noms. *Langage, Interaction et Acquisition/Language, Interaction and Acquisition* 2: 37–60. [CrossRef]

Bassano, Dominique. 2000. Early development of nouns and verbs in French: Exploring the interface between lexicon and grammar. *Journal of Child Language* 27: 521–59. [CrossRef]

Bassano, Dominique. 2010. L'acquisition du déterminant nominal en français: Une construction progressive et interactive de la grammaire. *Cognitextes* 5. [CrossRef]

Benazzo, Sandra. 2002. Communicative potential vs. structural constraints: Explanatory factors for the acquisition of scope particles. *Eurosla Yearbook* 2: 187–204. [CrossRef]

Bikić-Carić, Gorana. 2008. L'article dans les langues romanes. In *Actas del 8° Congreso de Lingüística General*. Madrid: Universidad Autónoma de Madrid, June 25–28, pp. 28–47.

Brustad, Kirsten. 2000. *The Syntax of Spoken Arabic: A Comparative Study of Moroccan, Egyptian, Syrian, and Kuwaiti Dialects*. Washington, DC: Georgetown University Press.

Carroll, Susan. 1999. Input and Second Language Acquisition: Adult's sensitivity to different sorts of cues to French gender. *Language Learning* 49: 37–92. [CrossRef]

Dewaele, Jean-Marc, and Daniel Véronique. 2000. Relating gender errors to morphosyntax and lexicon in advanced French interlanguage. *Studia Linguistica* 54: 212–24. [CrossRef]

Dimroth, Christine, Petra Gretsch, Peter Jordens, Clive Perdue, and Marianne Starren. 2003. Finiteness in Germanic languages: A stage-model for first and second language development. In *Information Structure and the Dynamics of Language Acquisition*. Edited by Christine Dimroth and Marianne Starren. Amsterdam: Benjamins, pp. 65–94.

Giacalone Ramat, Anna. 1992. Sur quelques manifestations de la grammaticalisation dans l'acquisition de l'italien comme deuxième langue. *Acquisition et Interaction en Langue Etrangère* 1. [CrossRef]

Giacobbe, Jorge. 1992. A cognitive view of the role of L1 in the L2 acquisition process. *Interlanguage Studies Bulletin* 8: 232–50. [CrossRef]

Giuliano, Patrizia, and Daniel Véronique. 2005. The acquisition of negation in French L2. An analysis of Moroccan Arabic and Spanish 'learner varieties'. In *The Structure of Learner Varieties*. Edited by Henriette Hendriks. Berlin and New York: Mouton de Gruyter, pp. 355–404.

Giuliano, Patrizia. 2004. *La Négation Linguistique dans L'acquisition d'une Langue Etrangère—Un Débat Conclu?* Berne: Coll. Sciences Pour la Communication.

Granfeldt, Jonas. 2003. *L'acquisition des Catégories Fonctionnelles: Etude Comparative du Développement du DP Français chez des Enfants et des Apprenants Adultes*. Lund: Department of Romance Languages.

Green, John N. 1988. Spanish. In *The Romance Languages*. Edited by Martin Harris and Nigel Vincent. Oxford: Oxford University Press, pp. 79–130.

Hendriks, Henriette. 2000. The acquisition of topic marking in Chinese L1 and French L1 and L2. *Studies of Second Language Acquisition* 22: 369–98. [CrossRef]

Hendriks, Henriette. 2005. Expressing space in different types of text: A comparison of French, English and Polish children. In *Studies in the Psychology of Child Language. Essays in Honor of Grace Wales Shugar*. Edited by Barbara Bokus. Warsaw: Matrix, pp. 347–64. ISBN 83923168–00.

Hinz, Johanna, Krause Carina, Rast Rebekah, Shoemaker Ellenor M., and Watorek Marzena. 2013. Initial processing of morphological marking in nonnative language acquisition: Evidence from French and German Learners of Polish. In *EUROSLA Yearbook 13*. Edited by Leah Roberts, Anna Ewert, Miroslaw Pawlak and Magdalena Wrembel. Amsterdam-Philadelphia: John Benjamins, vol. 13, pp. 139–75. [CrossRef]

Jarvis, Scott, and Aneta Pavlenko. 2010. *Crosslinguistic Influence in Language and Cognition*. London: Routledge.

Kim, Jin-Ok, Prodeau Mireille, and Carlo Catherine. 2006. Acquisition de la déterminantion nominale: Echelle développementale et tâches discursives. Paper presented at International Conference Recherche en Acquisition et en Didactique des Langues Etrangères er Secondes, Paris, France, September 6–8.

Klein, Wolfgang. 1984. *Zweitspracherwerb: Eine Einführung. L'acquisition de Langue Etrangère*. Athenäum Verlag, Frankfurt am Main. Translated by Colette Noyau in 1989. Paris: Armand Colin.

Klein, Wolfgang, and Clive Perdue. 1997. The basic variety (or: Couldn't natural languages be much simpler?). *Second Language Research* 13: 301–47. [CrossRef]

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Narcy-Combes, Jean-Paul. 2005. *Didactique des Langues et TIC: Vers une Recherche-Action Responsable*. Paris: Ophrys.

Noyau, Colette. 1986. L'Acquisition du Français dans le Milieu Social par des Adultes Hispanophones: La Temporalité. Thèse de doctorat de 3ème cycle, Université Paris IV-Sorbonne, Paris, France.

Noyau, Colette. 1991. La Temporalité dans le Discours Narratif. Construction du Récit, Construction de la Langue. HDR thesis, Université Paris 8-Saint-Denis, Paris, France, January.

Pavlenko, Aneta, ed. 2011. *Thinking and Speaking in Two Languages*. Bristol: Multilingual Matters.

Perdue, Clive, ed. 1993. *Adult Language Acquisition: Cross-Linguistic Perspectives. Vol. I: Field Methods, Vol. II: The Results*. Cambridge: Cambridge University Press.

Perdue, Clive. 1995. *L'Acquisition du Français et de L'anglais par des Adultes. Former des Enoncés*. Paris: CNRS Editions.

Perdue, Clive. 2008. L'expression de la finitude chez les apprenants L1 et L2 du néerlandais, du français et de l'allemand. In *L'apprentissage des Langues*. Edited by Michèle Kail, Michel Fayol and Maya Hickmann. Paris: CNRS Editions, pp. 198–223.

Prodeau, Mireille, and Catherine Carlo. 2002. Le genre et le nombre dans des tâches verbales complexes en français L2: Grammaire et discours. *Marges Linguistiques* 4: 165–74.

Prodeau, Mireille. 2005. Gender and Number in French L2: Can we find out more about the Constraints on Production in French L2? In *Focus on French as a Foreign Language: Multidisciplinary Approaches*. Edited by Jean-Marc Dewaele. Clevedon: Multilingual Matters, pp. 135–63.

Sleeman, Petra. 2004. The acquisition of definiteness distinctions by L2 learners of French. In *Linguistics in the Netherlands*. Edited by Leonie Cornips and Jenny Doetjes. Amsterdam and Philadelphia: John Benjamins, pp. 158–68. [CrossRef]

Starosciak, Katarzyna. 2021. Le traitement des règles de grammaire dans l'enseignement grammatical focalisé sur la forme: Résultats d'études en didactique et en acquisition des langues. In *Premières Etapes dans L'acquisition des Langues Etrangères*. Edited by Marzena Watorek, Arnaud Arslangul and Rebekah Rast. Paris: Inalco Presses, in press.

Teyssier, Paul. 2004. *Comprendre les Langues Romanes*. Paris: Chandeigne.

Turner, Michael Lee. 2013. Definiteness Marking in Moroccan Arabic: Contact, Divergence, and Semantic Change. Ph.D. thesis, University of Texas, Austin, TX, USA.

Veneziano, Edy, and Hermine Sinclair. 2000. The changing status of "filler syllables" on the way to grammatical morphemes. *Journal of Child Language* 27: 1–40. [CrossRef] [PubMed]

Véronique, Daniel, Catherine Carlo, Cyrille Granger, Jin Ok Kim, and Mireille Prodeau. 2009. *L'acquisition de la Grammaire du Français Langue Etrangère*. Paris: Didier, ⟨hal-01044839⟩.

Véronique, Daniel. 1986. L'apprentissage du français par les travailleurs marocains et les processus de pidginisation et de créolisation. In *Acquisition d'une Langue Etrangère: Perspectives et Recherches. Actes du 5ème Colloque International*. Edited by André Giacomi and Daniel Véronique. Aix-en-Provence: Université de Provence (Aix-Marseille 1), pp. 559–84.

Watorek, Marzena, and Clive Perdue. 2005. Psycholinguistic studies on the acquisition of French as a second language: The 'learner variety' approach. In *Focus on French as a Foreign Language: Multidisciplinary Approaches*. Edited by Jean-Marc Dewaele. Clevedon: Multilingual Matters, pp. 1–16.

Article

Additive Linking in L2 French Discourse by German Learners: Syntactic Embedding and Intonation Patterns

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Abstract: This study deals with the expression of additive linking in L2 French by adult German learners with two proficiency levels (advanced vs. intermediate). We examine whether crosslinguistic influences are observed in three domains: the frequency and type of additive expressions in discourse, the syntactic integration of additive particles in the utterance and the prosodic contour associated with them. A total of 70 participants (20 French native speakers, 20 German native speakers and 30 German learners of L2 French) performed an oral narrative task elicited via a video clip presenting abundant additive contexts. Our results show that advanced German learners did not experience an L1 transfer in any of the domains analyzed, but instead they show a learner-specific tendency to overmark the contrastive status of the relevant entities in discourse. Yet traces of crosslinguistic influence are visible in intermediate learners' choice and frequency of additive means, as well as the preferred position of the particles. All learners seem to have quickly discarded the possibility to mark scope by prosody, in contrast to what they do in their L1. We discuss these findings in the light of the L2 acquisition of cohesive devices in discourse and their interactions with different linguistic levels.

Keywords: French L2 acquisition; addition; scope particles; German L1; syntactic embedding; prosody; discourse cohesion

1. Introduction

Learning to express addition in another language might seem relatively easy. An utterance such as "me too" as a reaction to someone else saying "I'd like a beer" is not very complicated, once you have identified the additive function of "too". The task becomes somewhat more complex, however, when the utterance contains an explicit verb and you have to choose the additive particle to be used (*too, as well* or *also*) as well as its appropriate place in the utterance. It is then even more complex if you want to adhere to native speakers' preferences in such choices, which also include the option of expressing a relation of similarity (for example, *so do I*) instead of an additive one.

These are the acquisitional aspects that we deal with in this article, which reports the results of an empirical study on the expression of additive relations in narrative discourse by adult German learners of L2 French. The languages in contact express such relations by similar means, the most common being particles such as Ge. *auch* and Fr. *aussi*, but differ, however, with respect to their syntactic embedding in the utterance and the way their semantic influence is signaled. In particular, German combines positional and intonational features to identify the constituent affected by a particle. For example, the context illustrated in (1) offers two options for the integration of Ge. *auch*: either the particle precedes the subject, which receives a pitch accent, or *auch* is placed after the finite verb and a pitch accent falls on the particle (1a). For the equivalent sentence in French, *aussi* can be inserted in different syntactic positions (although always after the added constituent, i.e., Marie), but prosody does not seem to play a specific role: the semantic scope of this particle can, however, be signaled by a pronoun copy of the subject (1b).

1.   Context: John speaks English
a.   **auch** MaRIe spricht Englisch/Marie spricht **AUCH** Englisch
b.   Marie **aussi** parle anglais/Marie parle (elle) **aussi** anglais/Marie parle anglais (elle) **aussi**

Moreover, additive particles play an important role in information structure and discourse organization. In (1a, 1b), as replies to "John speaks English", their presence signals which information unit is new and added to a previous assertion (in this case, the entity *Marie*), thereby ruling out the interpretation of the current sentence as a correction of preceding information. In stretches of connected discourse, additive particles thus establish an anaphoric link with respect to a previous utterance, containing the antecedent which satisfies their additive presupposition (in this case, someone else speaking English). In doing so, they contribute to enhancing discourse cohesion via interclausal relations of an additive nature (in other words "additive linking"). On this point, crosslinguistic comparisons (Dimroth et al. 2010, among others) highlight further differences between German and French concerning additive linking in discourse: German speakers abundantly use *auch* as a device to enhance discourse cohesion, whereas in similar contexts, *aussi* is much less frequent in French, as speakers tend to resort to other additive means or to establish another type of relation (such as *so does she* in relation to 1). The acquisition of additive linking in French L2 by German learners implies, therefore, a complex task which concerns the choice of the interclausal relation to be expressed for discourse cohesion (different possible relations), the selection of linguistic means to mark addition, the way additive items are integrated into the utterance and how their semantic influence is signaled (syntax vs. prosody).

Additive particles emerge early in adult L2 varieties, although learners take a long time to acquire the scope grammar of the target language (henceforth TL). For the advanced stages, it is not clear to what extent they manage to adopt native preferences (particle frequency, distribution and type of addition) and, if not, whether they are influenced by their L1 principles of discourse construction or by learner-specific tendencies (cf. Section 2.2). The interaction between syntactic development and the acquisition of intonation patterns related to such particles is a dimension that has not been sufficiently addressed in L2 studies. Previous research on German and Italian L2 (Andorno and Turco 2015) suggests that learners acquire the TL distribution of additive particles before their prosodic features, but there is no specific study on L2 French *aussi*.

In order to gain insight on the acquisition of additive means, we study additive linking in oral narratives produced in French L2 by German learners representing two proficiency levels (intermediate and advanced), in comparison to control groups of French and German native speakers. All participants produced narratives based on a visual stimulus (*the Finite Story*) which presents numerous additive contexts. Given the typological contrasts between French and German, we investigate three dimensions of L2 oral production: the frequency and type of additive expressions in discourse, the syntactic integration of additive particles in the utterance and the prosodic contour associated with them.

The article is organized as follows: In Section 2, we detail the main differences between the expression of additive linking in French and German as well as the results of previous studies on its L2 acquisition, before turning to the data and the methodology of our study (Section 3). Thereafter, we present the results of the study (Section 4), which are followed by their discussion (Section 5).

2. Additive Linking and L2 Acquisition: Background and Research Questions

2.1. Additive Linking in German and French

In the two languages under study, additive linking is mainly expressed by particles, respectively Ge. *auch/ebenfalls/sogar* and Fr. *aussi/également/non plus/même*, i.e., invariable items sharing a similar semantic meaning and structural properties (cf. König 1991;

Gast and Auwera 2011; Nølke 1983)[1]. The particle selects part of the sentence it occurs in (its domain of application, i.e., the subject in ex.2) and states that the proposition holds for the affected constituent and at least one alternative element (in this case, another entity).

2. a. auch [Maria] spricht Englisch
   b. [Marie] aussi parle anglais

Contrary to Ge. *auch*, Fr. *aussi* is replaced by *non plus* in negative contexts (Marie ne parle pas *non plus* anglais, "Mary does not speak English *either*"). In the following, we will focus on the differences between the central particles *auch/aussi*.

These items can occupy different positions in a sentence, which are language-specific. In a simple sentence with an SVO linear order where the particle semantically affects the subject, *auch* can precede it or follow the finite verb, whereas *aussi* can be placed after the subject, after the finite verb or after the complement.

The particle's mobility contributes to the identification of the affected constituent. However, some placements might be ambiguous, as they are compatible with different interpretations of the particle scope (so-called wide-scope positions, cf. König 1991). This is the case when *auch* and *aussi* are placed after the finite verb, as in (3a, 3b), but also when *aussi* is at the end of the utterance (3c): from these positions, the particle can select *any* constituent of the utterance as the domain of application of its additive meaning.

3. a. [Maria] [spricht] auch [Englisch]
   b. [Marie] [parle] aussi [anglais]
   c. [Marie] [parle] [anglais] aussi

Even if the context usually allows the right interpretation, there are also language-specific devices to signal the particle's scope. As was shown in (1), German makes use of prosodic cues to indicate whether the domain of application is on the right or on the left of the particle, whereas French can resort to syntactic means, at least when the addition affects the subject, with the insertion of strong pronouns referring anaphorically to it (*Marie parle elle aussi anglais*).

In this respect, languages with lexical stress such as German exploit pitch accents as an indication of pragmatic or discourse meaning in a more complex way than languages without lexical stress such as French. German pitch accents in prenuclear positions can display different melodic realizations such that many linguistic contrasts can be retrieved from prosodic realization only (Braun 2006). In contrast, French accented syllables in non-final positions are in most cases prosodically invariable, and the linguistic contrasts they convey (such as contrastive topic or contrastive narrow focus) are more restricted (Delais-Roussarie et al. 2015).

This difference also concerns the prosody of additive particles. According to Andorno and Turco (2015), if Ge. *auch* precedes the NP under its additive scope, as in the first option of (1a), the former is unaccented and the latter is produced with an important rising contour following a high plateau on the VP (schema C in Figure 1). If *auch* is embedded after the finite verb, as in the second option of (1a), two intonation patterns can be observed: (i) the additive particle is produced with a rising contour followed by a high plateau on the last constituent of the utterance (schema A in Figure 1) or (ii) a rising contour is produced on the NP followed by a high plateau on the finite verb and a falling movement on the additive particle (the "hat contour" represented in schema B in Figure 1)[2]. These patterns show that prosody plays an important role for the interpretation of *auch*.

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1. We refer the reader to these publications for an extensive presentation of additive particles in different languages. Note that most of such particles are polysemic: in particular, *aussi* is also a causal connector and *auch* a modal particle.

2. A third configuration would be *auch* in postfinite position with scope over the following part of the sentence. We do not consider such an option, as it goes beyond the topic of our study.
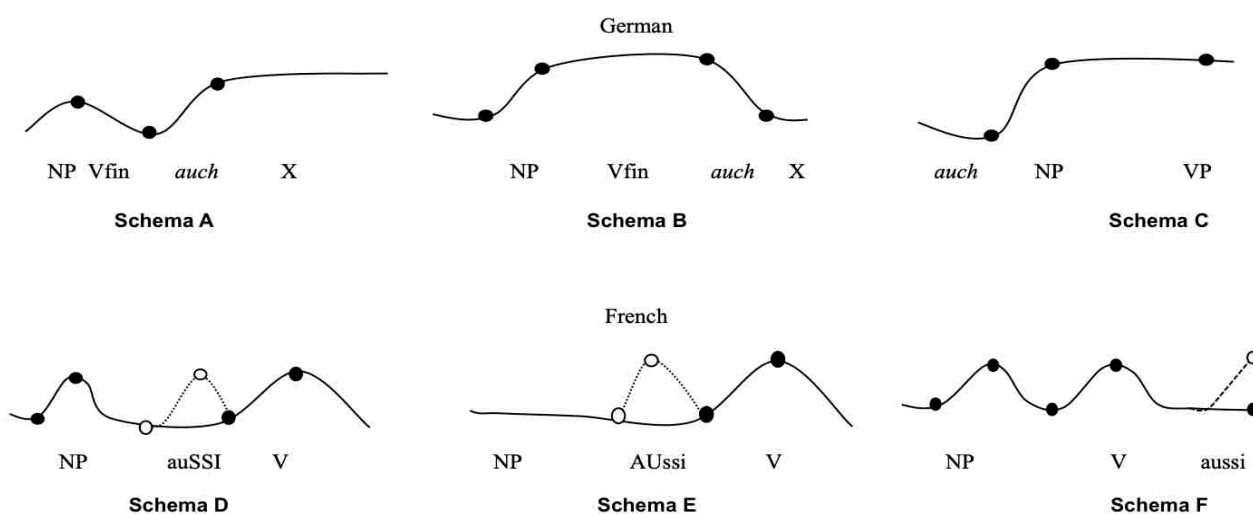
Figure 1. Pitch stylizations of GE. *auch* and Fr. *aussi* according to different syntactic positions.

Unlike German, the association between the particle *aussi* and the constituents under its scope is not clearly marked by prosodic cues in French. According to Benazzo and Patin (2017), an accented syllable (final or initial) realized on the particle *aussi* is not obligatory for its semantic interpretation (see the white dots in schemas D and E in Figure 1). Moreover, since both initial and final accents in prenuclear positions are mainly produced with a rising/high contour such as other prenuclear accents, authors argue that the scope of the particle *aussi* is mainly encoded by its position in the sentence or by other syntactic mechanisms (i.e., pronoun copies) but not by a particular melodic configuration. Hence, the particle *aussi*, as with many other lexical items, can bear or not an initial/final accent in order to mark the edges of the so-called *groupe accentuel* (Di Cristo 2016). When *aussi* is produced in sentence final position, a final falling contour is produced in conclusive statements, whereas a final rising contour is often produced in the case of continuations (schema F in Figure 1) or neutral yes–no questions.

Besides such grammatical asymmetries at the sentence level, GE. *auch* and Fr. *aussi* also differ in their frequency of use in discourse. Previous research, based on comparable data in German and French, has invariably attested that *auch* is much more frequent than *aussi* both in written texts (Blumenthal 1985; De Cesare 2015) and oral discourse (Dimroth et al. 2010; Benazzo and Dimroth 2015). This asymmetry has been related to language-specific choices among alternative discourse perspectives and cohesive means, which are typologically motivated. In particular, the analysis of data obtained with the same stimulus (Dimroth et al. 2010) shows that, for the additive contexts, French native speakers quite often mark a relation of similarity instead of addition, whereas German native speakers adhere massively to the additive perspective[3].

2.2. L2 Acquisition of Additive Linking

Adult learners produce additive particles from the earliest stages of L2 acquisition (Dimroth 2002; Perdue et al. 2002, among others). For utterance embedding, the initial stages seem to be driven by the tendency to place particles adjacent to the constituent they affect (semantic transparency) and/or to adopt the most salient position in the input. In French L2, *aussi* is thus initially placed at the periphery of the verbal utterance (especially in the final position, or in the preverbal one), whereas the utterance-internal placement

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3   Such preferences have been related to a typological split between Germanic vs. Romance languages for discourse cohesion in additive and contrastive contexts (Benazzo and Dimroth 2015). *Auch* is integrated in a system of assertion-related particles pushing German speakers to comparisons between assertions (use of its stressed variant, affirmative particles or *verum focus*), whereas speakers of Romance languages are less systematic in their choice of linguistic means but share a tendency to mark addition and contrast between topic entities (availability of specific means such as strong pronouns or marked word orders) or in the domain of the lexical predicate (expression of identity instead of addition).

after the finite verb appears later, with the development of functional verb morphology (cf. Perdue et al. 2002). The use of contrastive pronouns is generally considered a late acquisition, typical of advanced learners (Benazzo et al. 2004).

Studies on intermediate levels reveal a certain impact of crosslinguistic influence on the distribution of additive particles. For example, intermediate Italian learners of French L2 realize a wider range of positions than same-level Russian learners and use the option of pronoun doubling earlier (Benazzo and Paykin 2017); German learners of French (Thörle 2020) and French learners of German (Bonvin and Dimroth 2016) exploit more frequently than TL native speakers the placement after the finite verb, which is common between the two languages. In both cases, however, the occurrence of L1 positions that do not correspond to a formally equivalent TL placement is rather sporadic. Such asymmetries seem to reflect Andersen (1983) principle "transfer to somewhere" and confirm Ringbom and Jarvis's assumption that "learners are constantly looking for similarities (when they can find them) rather than for differences" (Ringbom and Jarvis 2009, p. 106).

Besides L1 effects, Thörle (2020) also attests an overuse of the preverbal position for *aussi*, which does not correspond to a possible placement in German. The high frequency of this position is put on a par with the abundance of left dislocations for entity reference in additive L2 utterances: considering these phenomena together leads the author to conclude that the preverbal position, be it combined or not with left dislocation, is a means to (over-)mark the information status of the entities, which are contrastive topics.

As for the type of relation, studies based on retellings of the Finite Story have highlighted learners' tendency to reproduce in L2 the proportion of the two relations attested in their L1: thus, intermediate French learners of German (Bonvin and Dimroth 2016) overmark similarity in comparison to TL native speakers, whereas intermediate Italian learners of French overmark addition (Benazzo and Paykin 2017). In both studies, advanced learners come close to the target. Note that these results hold for the additive contexts, whereas for the contrastive ones of the same stimulus, even advanced learners do not match native preferences concerning the linguistic means put to use (Bonvin and Dimroth 2016; Benazzo et al. 2012). More generally, the adoption of the TL discourse perspective is considered to be a late acquisition for the expression of different domains (time/subject reference/space, etc.): on the one hand, taking a perspective implies that alternative means are available in L2 and, on the other, it is just a question of preferential choices among different options which are possible in the TL.

While the above-mentioned studies have investigated additive relations in L2 oral discourse, little is known about the interaction of syntactic development and the production of intonation patterns of additive particles. Andorno and Turco (2015) analyzed this aspect in the data of intermediate learners of two language pairs (L1 Italian > L2 German and vice versa). In these two languages, prosody has a function for the interpretation of additive particles, in addition to syntactic placement. The authors report that the acquisition of TL-like positional patterns precedes the acquisition of the prosodic ones. This is true for the postfinite position in L2 German, for which Italian learners fail to accent the particle in order to disambiguate its scope, as already observed in Becker and Dietrich (1996) for untutored beginners. However, this is also true for the adjacent initial position in Italian: German learners adopt this position, but they fail to deaccent the particle. In the present study, we also address this question. We examine to what extent learners whose L1 encodes additive linking via intonation patterns (German) learn not to use them when acquiring a target language like French, where the same function is mainly conveyed by syntactic mechanisms.

2.3. Research Questions

From the point of view of L2 acquisition, the study of additive linking is particularly interesting because of its complexity: learners have to choose simultaneously among different options at different levels. In the light of previous research, our study on German

L1–French L2 learners deals with the following question: to what extent do learners adopt native French preferences for additive linking?

This general question can be split into more specific ones: (a) Which type of relation (additive/similarity) do learners mark to enhance discourse cohesion and by which means? (b) How do they embed additive particles in the utterance? (c) Does prosody contribute to scope marking as in their L1?

Given the typological contrasts between German and French, we investigate the role of crosslinguistic influence vs. learner-specific tendencies that could apply in L2 at any of the levels just mentioned. Taking into account both intermediate and advanced learners allows us to consider also a developmental dimension: can we attest an evolution in learners' preferences according to their level?

3. Our Study: Method and Data

3.1. Objectives and Participants

The empirical data of our analysis are oral retellings elicited with a visual stimulus in L1/L2 French and L1 German. In order to study additive linking in L2, we first analyze how such relations are expressed by native speakers of French and German. This contrastive analysis aims at determining which means are more frequently used and how, both in the source and target languages. Then, we examine the expression of additive linking in German learners of French, who are divided in two groups according to their level in the target language (cf. Table 1).

Table 1. The participants[4].

Native Speakers	N	Education	Age	
German	20	university degree or students		
French	20	university degree or students	20–45 (average 30)	
French L2	**N**	**Proficiency Level**	**Age**	**Length of Stay**
German L1	15	Intermediate (B1/B2)	20–29 (average 24)	1–11 months
German L1	15	Advanced (C1/C2)	25–48 (average 33)	2–20 yrs

All subjects are adults (aged between 20 and 48), with a comparable degree of education (university students or graduates), who have been recorded in the country of the TL, i.e., France for native speakers of French and L2 learners; Germany for native speakers of German.

None of the L2 subjects were exposed to French before age 10. The intermediates (henceforth INT) are mostly Erasmus students who, at the time of recording, had spent a few months but less than a year in France (mean length of residence = 4 months). Their proficiency level corresponds to B1/B2 of the Common European Framework of Reference[5]: their production shows the functional use of most common tenses (*present, passé composé, imparfait*) and some forms of subordination, but also the presence of grammatical errors (gender, agreement) and some uncertainty about the correct verb endings for less common lexical verbs.

The advanced learners (henceforth ADV) have been living and working in France for several years (mean stay: 6.5 years). Their level has been estimated on the basis of their oral production which is fluent and displays TL-like inflectional morphology and a high degree of syntactic complexity (various forms of implicit and explicit subordination). There

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[4] The L2 corpus has been collected in the framework of the Franco-German project Langacross II (Utterance Structure in Context: Language and Cognition during acquisition in a crosslinguistic perspective, 2011–2014), financed, respectively, by the *Agence Nationale de la Recherche* and the *Deutsche Forschungsgesellschaft*. Their productions have been studied for the expression of contrastive relations in Benazzo et al. (2012). The control groups of L1 French and German have also been partially considered in other studies, namely, Dimroth et al. (2010), Bonvin and Dimroth (2016) and Benazzo and Paykin (2017).

[5] Their level in French had been assessed either by the institution where some of them were following courses of French as a second language (Italian Erasmus students) or via a language test centered on grammatical competence.

are no grammatical errors in their production and their oral competence seems therefore to correspond to the C1/C2 level of the CEFR.

3.2. The Task: The Finite Story and Its Additive Contexts

The visual stimulus used to elicit oral production is the "Finite Story" video clip (cf. Dimroth 2006), which consists of 30 short segments showing the misadventure of three protagonists during a fire episode. The participants were asked to retell what happened in the story immediately after having watched each video segment.

This stimulus has been designed in order to obtain stretches of discourse with an information structure different from the prototypical one of narratives, in which the new information usually corresponds to the predicate. The additive contexts of the Finite Story correspond to video segments where the protagonists perform similar actions: the situation expressed by the predicate corresponds to given information (repeated similar actions), whereas the entities, which have been introduced from the first sequences, have a topical status but change from one utterance to the next (Dimroth et al. 2010).

The analysis is based on eight narrative sequences of this type, i.e., segments 4–5–8 (already analyzed in Dimroth et al. 2010) and segments 21–21–25–27–29, in which the additive relation concerns the subject entities. Table 2 reports the content of the video segments analyzed (in bold) as well as the relevant antecedent scene to which an additive link can be established.

Table 2. *The Finite Story*: additive segments selected for analysis and relative antecedents.

N°	Content of Film Segments	Relevant Antecedent Segments
01	Introduction of the protagonists	
02	Introduction of the house and flats	
03	Mr. Blue going to bed, switching off the light, sleeping	
04	**Mr. Green going to bed, switching off the light, sleeping**	03
05	**Mr. Red going to bed, switching off the light, sleeping**	03/04
06	Fire on the roof	
07	Mr. Green sleeping	
08	**Mr. Red sleeping**	07
09	Mr. Blue not sleeping, noticing the fire	
11	Mr. Blue calling fire brigade	
19	More fire, Mr. Blue worried	
20	**Mr. Green awake and worried**	09/19
21	**Mr. Red awake and worried**	09/19/20
22	Arrival of fire engine	
24	Rescue net: Mr. Green not jumping	
25	**Rescue net: Mr. Red not jumping**	24
26	Rescue net: Mr. Blue jumping	
27	**Mr. Green jumping**	26
28	Mr. Red not jumping	
29	**Mr. Red jumping**	27
31	The happy end	

Each of the selected segments is a favorable context encouraging the expression of an additive relation, as in (4a), where the additive particle highlights that a previous assertion holds for a different entity (anaphoric link in the domain of entities). However, it is equally

possible to highlight the similarity of the situation by establishing an anaphoric link on the predicate domain, as in (4b), or leave out any specific additive marking, as in (4c).

4. Previous context: Mr. Blue goes to bed
a. Mr. Green also goes to bed.   Addition of another entity
b. Mr. Green does the same.   Similarity to a previous situation
c. Mr. Green goes to bed.   No marking

The choice between the two types of anaphoric relation, as in (4a, 4b), is actually possible when the repetition of similar situations takes place in two subsequent sequences. This is the case for all the selected contexts, except scene 29.

3.3. Procedure

The analysis of native and non-native productions proceeded in the following steps. First, we considered the means used to mark the additive contexts and their frequency. The proportion of markings was calculated by dividing the number of *mentioned events* which could possibly be marked for addition (allowing a comparison with a previous utterance of the same speaker) by the number of *utterances* that have actually been *marked*, either for the additive or similarity relation. All the narrative utterances showing a misinterpretation of the correspondent video segment were excluded from the analysis. Then, we calculated the percentage of markings for each of the two relations (addition vs. similarity) and the repertoire of the correspondent linguistic means.

Afterwards, we focused on the structural integration of additive particles inserted in utterances containing the entity as grammatical subject and a finite verb (exclusion of nominal elliptic ones, such as *Mr. Red too*). For these utterances, we considered the position of the additive particle with respect to the major constituents of the sentence (initial, preverbal, after the finite verb, etc.).

Finally, we analyzed the pitch contours of additive utterances with the particle *aussi* in L2 French. In order to verify the presence of specific melodic movements triggered by German L1, we examined whether the final/initial vowels of *aussi* are produced with any melodic movement (falling, rising or dynamic) with a glissando threshold of $0.32/\text{T}^2$ via the Prosogram tool (Mertens 2014). Pitch contours were manually labeled by one of the authors (an experienced phonetician) according to ToBI labels for French (Delais-Roussarie et al. 2015). Note that this part of the study is rather qualitative: the prosodic analyses could not be conducted on the whole dataset, since most recordings suffer from poor acoustic quality.

4. Results

The results for native and non-native productions are presented in the following order: first, we consider the frequency of additive linking for the contexts analyzed and the relevant means used for doing so (Section 4.1), then the utterance embedding of additive particles (Section 4.2) and, finally, the prosodic contour associated with their use in L2 (Section 4.3).

4.1. Additive Linking: Means and Frequency

The quantifications of native speakers' data (cf. Table 3) show a higher percentage of marked utterances in the German retellings (61.60%) in comparison with the French ones (43.40%). A chi-square test confirms that this difference is statistically significant (χ^2 = 4.43, $p < 0.03$).

Concerning the proportion between the two possible relations (addition vs. similarity), additive markings represent the majority in both languages: they are, however, much more frequent in German (92.75%) than in French (72.54%), where speakers opt quite often for the similarity relation (27.45 % in French vs. 7.24% in German). These data reconfirm German speakers' stronger tendency to mark the additive relation in comparison to French speakers for this informational context.

Table 3. Proportion of marked utterances in native productions.

	German (n = 20)		French (n = 20)	
	Absolute n°	Percentage	Absolute n°	Percentage
Number of markings				
Marked utterances/event mentions	138/224	61.60%	102/235	43.40%
Type of relation				
Addition	128/138	92.75%	74/102	72.54%
Similarity	10/138	7.24%	28/102	27.45%

The means used to mark addition are quite similar in both languages (cf. Table 4): they correspond mainly to the central additive particles Ge. *auch* (119 occurrences) and Fr. *aussi* (47 occurrences), followed by the more formal lexical variants Ge. *ebenfalls* (7 occurrences) and Fr. *également*[6] (13 occurrences). In French, we also attest the presence of *non plus* (12 occurrences), the negative counterpart of *aussi*, whereas Ge. *auch* is also used in negative contexts. In addition, native speakers sporadically produce other expressions, such as "in its turn"/"it is his turn" (two occurrences of Fr. *à son tour*; one of Ge. *dran sein*) or *again* (one *wieder*).

Table 4. Linguistic means used by native speakers in the additive contexts.

Native Speakers	German	French
Addition relation	119 auch (nicht) 7 ebenfalls 2 other (wieder, dran sein)	47 aussi + 12 non plus 13 également 2 other (à son tour)
Total ADD	128	74
Similarity relation	2 (das)selbe/2 gleich X/das gleiche 2 wie X 2 genauso (wie) 2 ebenso	19 même 6 pareil 3 other (suivre l'exemple, ainsi que, idem)
Total SIM	10	28
Total	138	102

The similarity relation is also expressed by rather equivalent structures in the two languages: Fr. *même* ("same"), be it used in its adverbial (*faire de même* "do the same") or adjectival function (*même N* "same N"), as in (5a-b), and Fr. *pareil* ("similarly") correspond to Ge. *selb/gleich* (or *dasselbe/das gleiche*), as in (5c).

5. a. M. Vert fait de même (4-sbj3)[7]
   "Mr. Green does the same"
   b. M. Rouge a la même réaction (25-sbj 10)
   "Mr. Red has the same reaction"
   c. Herr Grün (…) hat auch n gleichen ängstlichen gesichtsausdruck wie herr blau (20-sbj 10)
   "Mr. Green (…) has also the same fearful facial expression as Mr. Blue"

Such means are, however, attested with a different frequency: German speakers massively use *auch* (119 occurrences out of 138 markings = 86%), whereas French speakers resort to *aussi* in a more limited way (47 out of 102 markings = 46%), this item being

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6 Fr. *également* can also be used as an adverb of manner meaning "equally"/"in an equal manner", but all the occurrences attested suggest the additive meaning.

7 Excerpts report the number of the relevant scene, followed by the subject number.

occasionally replaced by its negative counterpart *non plus* or the more formal variant *également* for addition, or by the alternative expression of similarity.

The proportion of each means is illustrated in Figure 2 where the colors are meant to facilitate the visualization of the functional correspondences between the two languages: additive means in different shades of blue and similarity means in shades of yellow.
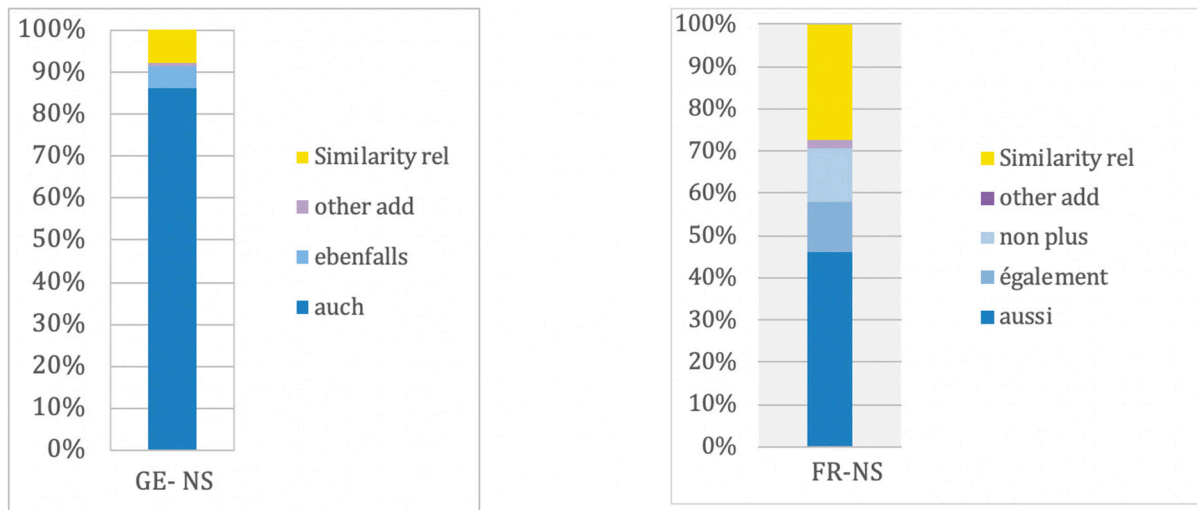
Figure 2. Proportion of additive means used by native speakers.

The comparison of native French and German additive linking allows us to characterize the L2 acquisitional task: once German learners have identified the correspondent means in French, in order to approach the TL they should modify the frequency for each type of marking. If learners tend to reproduce L1 patterns, we can expect that German learners of French L2 will: (a) produce a higher number of marked utterances in comparison to French native speakers; and (b) overmark the additive relation at the expense of the similarity relation.

The analysis of L2 French apparently confirms both hypotheses. Starting with the global proportion of marked utterances (Table 5), learners seem to overmark the additive contexts, but the INT group do it to a much higher extent (68.88%) than the ADV group (56.17%). In fact, only the difference between the INT group and French native speakers reaches significance ($\chi^2 = 6.78$, $p < 0.05$).

Table 5. Proportion of marked utterances in French L2.

	German	FRL2-Int		FRL2-Adv		French
	Percentage	Absolute n°	Percentage	Absolute n°	Percentage	Percentage
Frequency						
Marked utterances/event mentions	61.60%	93/135	68.88%	91/162	56.17%	43.40%
Type of relation						
Addition	92.75%	80/93	86.02%	65/91	71.42%	72.54%
Similarity	7.24%	13/93	13.97%	26/91	28.57%	27.45%

Both L2 groups produce, however, a similar amount of marked utterances in absolute numbers (93 vs. 91). What changes is the number of event mentions: ADV learners mention more events than the INT ones to describe the same additive scenes—cf. (6a) with just one event mention and (6b) with two—but it would be redundant to mark either addition or similarity for each additional event.

6.   a.   M.Rouge e: # **aussi** # ne veut pas sortir[8] (25-GE-Int10)
            "Mr. Red also does not want to go out"
      b.   mais lui **également** il a peur/il refuse de sauter (25-GE-Adv02)
            "but him also he is afraid/he refuses to jump"

The decrease attested in the retellings of the ADV group is therefore a consequence of their higher granularity. These learners still present a higher proportion of marked utterances when compared to French native productions, but this difference is not statistically significant ($p = 0.31$).

The intermediates' overmarking clearly concerns addition (86.02%) with respect to similarity (13.97%), in proportions that are similar to what is attested in German L1. The ADV group shows an increase in similarity markings (28.57%) at the expense of the additive ones (71.42%): as a consequence, the type of relations they mark is very close to the ratio attested in the French native group.

Figure 3 illustrates this evolution with an overview on the means used at each level. For ease of comparison, we also report the data of the French control group.
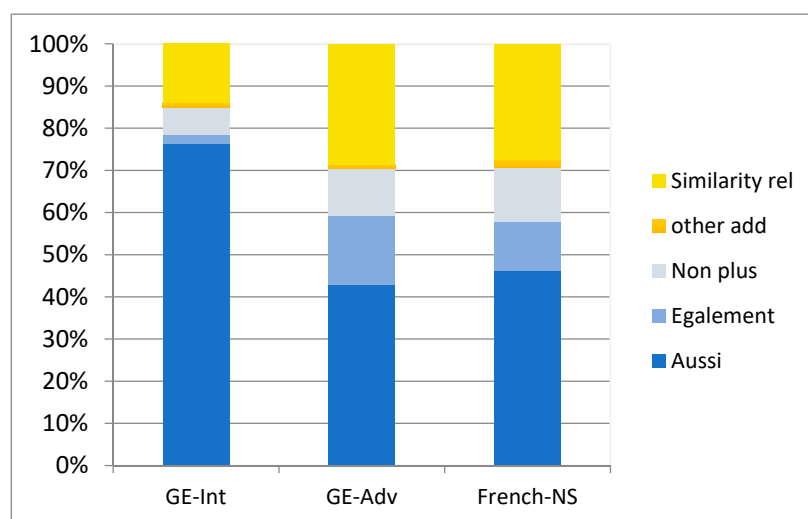
Figure 3. Proportion of means used in French L2 in the additive contexts.

The L2 INT group thus displays a massive use of the central particle *aussi* (71 occurrences/93 marks, i.e., 76.3% of all means), sporadically replaced by *non plus* (6 occurrences) and *également* (2 occurrences), whereas L2-ADV enlarge their use of the other additive means (39 *aussi*, 15 *également*, 10 *non plus*).

Although not detailed in Figure 3, an enrichment of the lexical repertoire is also attested for the similarity relation, which goes from the exclusive use of structures equivalent to *same* (*same thing* or *same* X) in INT to a more varied repertoire—*pareil* (likewise), *suivre l'exemple* (follow the example of X)—in ADV. As a result, the proportion and type of means mobilized by the ADV group for both relations are very similar to the native French control group.

4.2. Additive Particles: Structural Integration in the Utterance

Before analyzing the L2 embedding of additive particles in the utterance, we consider their distribution in native productions. The relevant evidence for German is calculated on the basis of 104 occurrences of the particle *auch* in verbal utterances (cf. Figure 4).

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8   The use of *aussi* (instead of *non plus*) in a negative context is typical of L2 French at the intermediate level (cf. Thörle 2020). Note, however, that such constructions are not unusual in colloquial French.
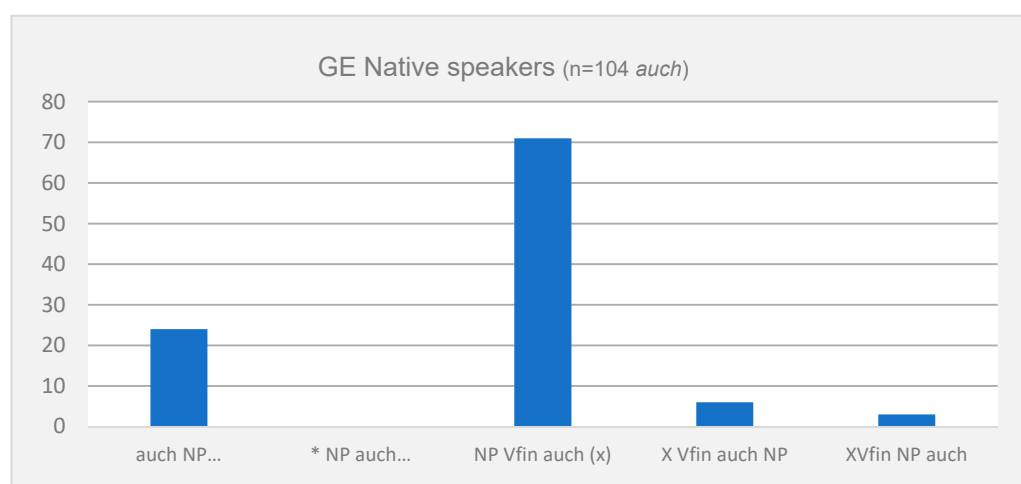
Figure 4. Distribution of additive *auch* in the utterance (* = agrammatical position in the TL).

As expected, *auch* is most frequently placed after the finite verb (71 occurrences), as in (7a). However, there is also a consistent number of occurrences (24 occurrences) where it immediately precedes the initial NP (7b).

7.   a.   Herr Grün ist **AUCH** aufgewacht (20-Sbj 21)
          "Mr. Green also woke up"
     b.   **auch** Herr GRÜN war nun wach und hatte angst (20-Sbj 22)
          "also Mr. Green was now awake and was scared"

The remnant occurrences correspond to sentences with a linear order different from SVO. When the sentence starts with a non-subject constituent, the subject and the particle follow the finite verb: in this case, *auch* can be placed either before the subject (ex.8a) or after it, as in (8b).

8.   a.   jetzt ist **auch** Herr GRÜN in das sprungtuch gesprungen (27-Sbj 31)
          "now has also Mr. Green in the security net jumped"
     b.   jetzt springt Herr Rot **AUCH** aus dem Fenster (29-Sbj 35)
          "now jumps Mr. Red also out of the window"

Turning to French, the relevant additive items are *aussi*, *également* and *non plus* (henceforth AI: additive items), which share in principle the same structural distribution (cf. Nølke 1983) as well as the option of pronoun reduplication when they are associated with the grammatical subject. The analysis is based on a total of 63 additive utterances with an explicit verb. The following examples (9a–d) illustrate each of the positions attested, which are quantified in Figure 5. Note that the position after the final verb may coincide with the utterance final one in the absence of a complement, as in (9b).

9.   Preverbal position
a.   M. Rouge **aussi** a peur (25-sbj 16)
     "Mr. Red is also afraid"
     After the finite verb (PostV1)
b.   M. Rouge refuse **également** (25-sbj2)
     "Mr. Red refuses as well"
     after aux-Vlex (PostV2)
c.   M. Vert a décidé **lui aussi** de sauter (27-sbj19)
     "Mr. Green has decided him too to jump"
     Utterance final (= after the complement or a non-finite verb)
d.   M. Rouge s'est réveillé **également** et commence à paniquer **aussi** (21-sbj1)
     "Mr. Red also woke up and begins to panic as well"
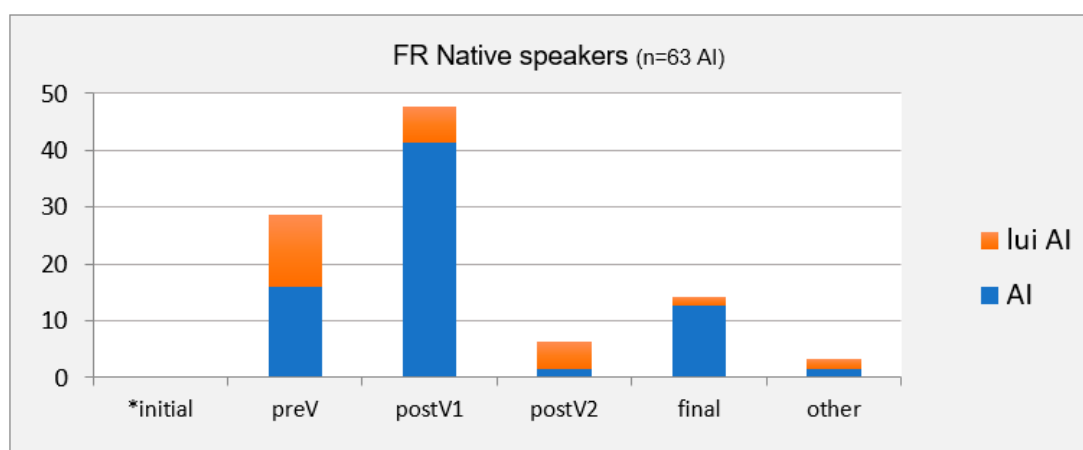
Figure 5. Distribution of additive items "*aussi*", "*également*" and "*non plus*" in the utterance. AI = additive item; lui AI = additive item with strong pronoun (* = agrammatical position in the TL).

As shown in Figure 5, the occurrences of AI spread over each of the possible positions: they are most frequently placed after the finite verb (41.2%), but there is also a consistent number of occurrences where the particle is in the preverbal position (28.5%), after the aux-V group (6.3%) and in the final position (14.2%). Pronoun doubling, attested with *aussi* and *non plus*, is produced in all positions for a total of 17 occurrences, which means roughly 27% of all AI occurrences.

The AI in the two languages share thus a common preferential position (post-Vfin), which is, however, highly dominant in German in comparison to French (around 70% vs. 40%). All other placements are language-specific: as for the area before the finite verb, the German particle is placed before the subject, whereas in French, it follows it, and for the final area, the utterance final position is possible in German when the particle is in a postfinite position of a sentence without a non-finite verb (e.g., *Herr Rot schläft auch*), whereas in French, it is quite common with SVO structures.

In addition, French speakers resort quite often to pronoun reduplication, which is attested in all syntactic positions, whereas a corresponding construction is not used in German.

If learners look for similarities, it is expected that they will overuse the common position after the finite verb, all other positions being rather different from those possible in their L1. The optionality of strong pronouns is instead a feature that might delay their acquisition.

Starting with the INT group, their production presents a total of 63 AI inserted in verbal utterances (respectively, 59 *aussi* and 4 *non plus*). Their distribution is represented in Figure 6a for the whole group and then split individually in Figure 6b.

As expected, AI are mainly placed after the finite verb (42.85%): this position is exploited by 14 learners. Two of them (S7 and S15) only use this placement, but most subjects exploit at least two different positions.

The utterance final one is the second most widespread (39.78%, produced by 10 learners): even if it does not correspond to an equivalent placement in German L1, this position is frequent in the input and perceptually salient.
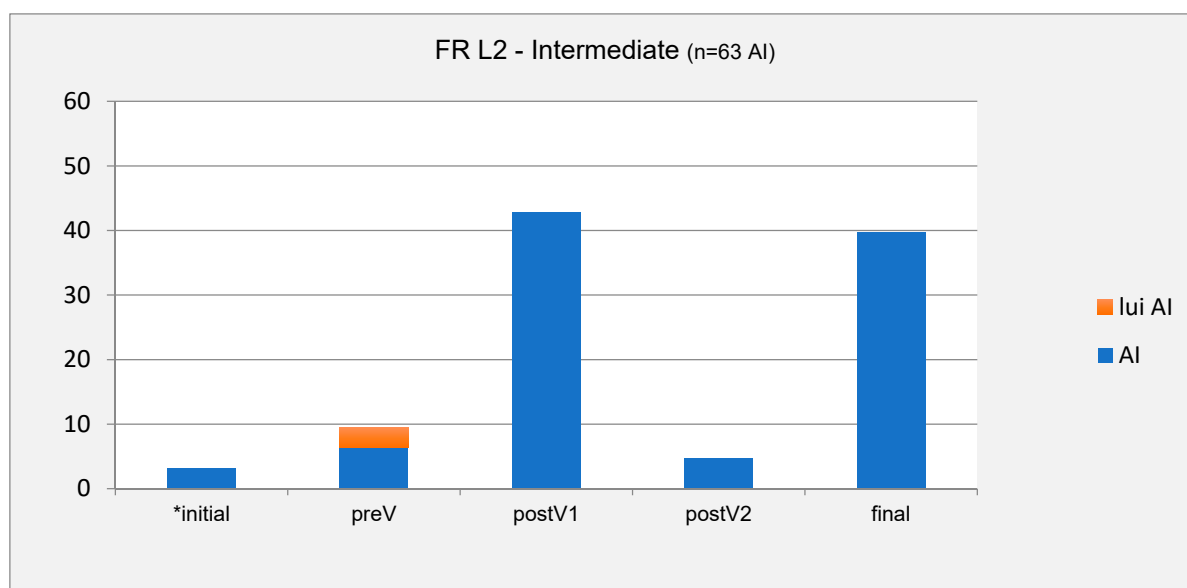
(**a**)
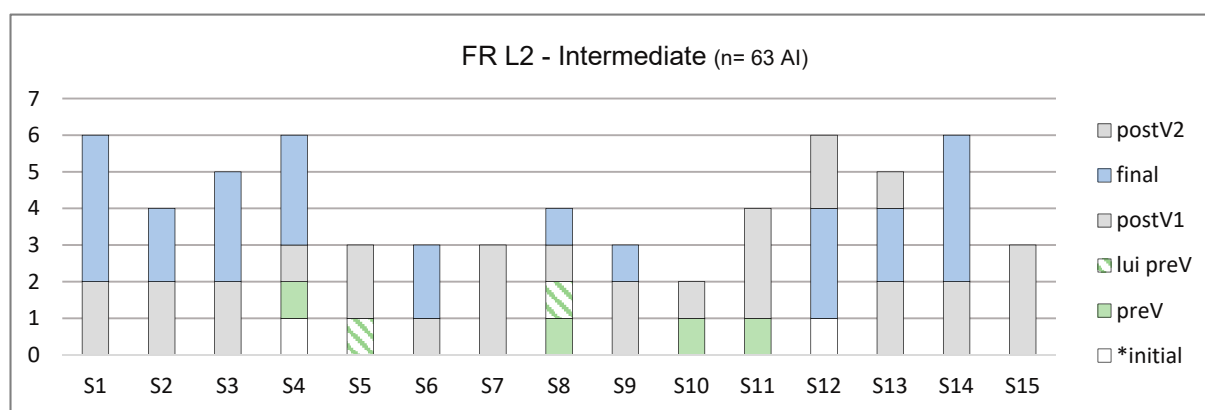
(**b**)

Figure 6. (**a**) Intermediate learners: group distribution of AI. (**b**) Intermediate learners: individual distribution of AI (* = agrammatical position in the TL).

The initial position, typical of the learners' L1, is instead quite rare (two occurrences by two subjects).

Finally, the preverbal position is much less frequent (less than 10%) than the postfinite and final positions, but it is the only placement in which strong pronouns appear (two occurrences by two subjects).

10.   il ne dort plus et **lui aussi** il a peur (20-Ge-Int05)
       "he is not sleeping anymore and him too he is afraid"

The presence of strong pronouns associated with additive items is therefore relatively rare. It is, however, important to signal two more occurrences in which the pronouns are disjointed from the particle, the former being placed in the subject position and the particle after the finite verb (11a–b). For these structures, Figure 6a,b report only the position of *aussi* (respectively, after V1 and final).

11.   a.   et finalement **lui** il saute **aussi** (29-Ge-Int05)
              "and finally him he jumps too"
       b.   mais **lui** il a peur **aussi** (25-Ge-Int04)
              "but him he is afraid too"

Given the unique position of strong pronouns, their sporadic use does not seem to function as a means for disambiguating the scope of additive items.

Turning to the ADV group, their productions include 59 AI (38 *aussi*, 12 *également* and 9 *non plus*) inserted in verbal utterances (cf. Figure 7a,b).
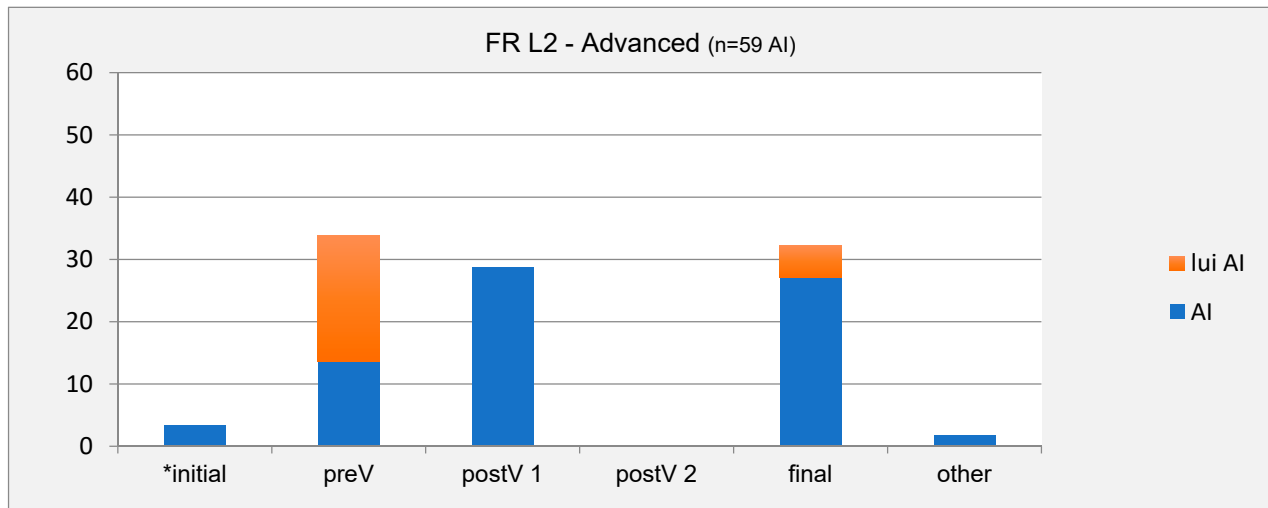
(**a**)
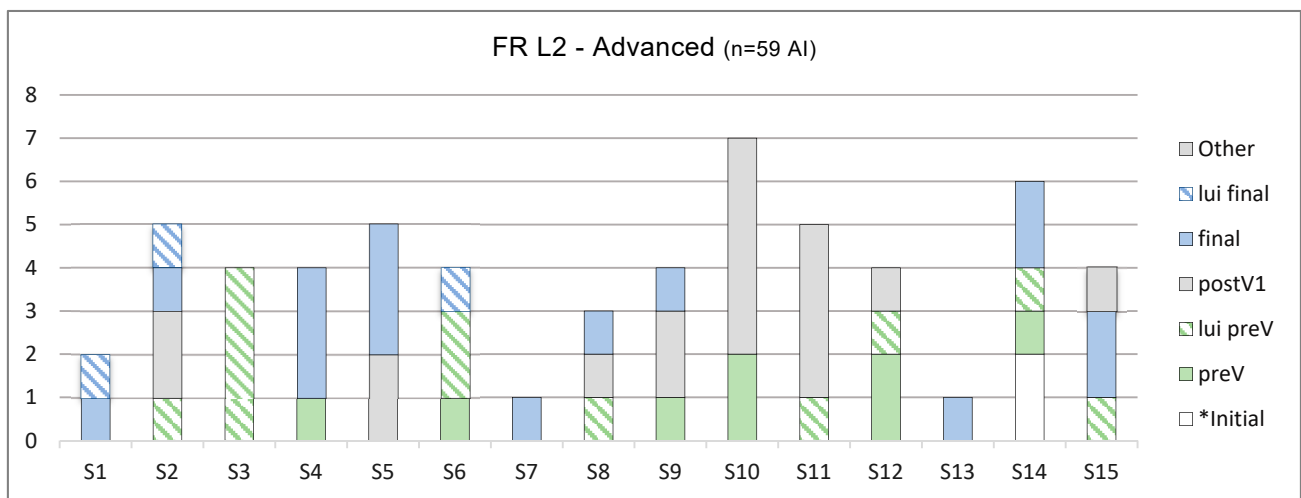
(**b**)

Figure 7. (**a**) Advanced learners: Group distribution of AI. AI = 38 *aussi*, 12 *également*, 9 *non plus.* (**b**) Advanced learners: individual distribution of AI (* = agrammatical position in the TL).

Compared to the INT group, advanced learners show an increasing proportion of the preverbal position (11 subjects; the only position for one of them) and of the final position (11 subjects; the only position for 2 of them), at the expense of the position after Vfin (7 subjects): as a result, the three main positions are almost used to the same extent (with a slight preference for the preverbal one) and with all three AI.

The presence of strong pronouns also increased[9] (15 occurrences for a total of 25.4%, produced by 9 subjects), thus reaching native French proportions.

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[9] Note that many preverbal ***lui aussi*** do not include an initial NP because the referent is maintained: in these cases, it is not possible to use the clitic pronoun with preverbal *aussi* (*il aussi . . .).

12. a. mais **lui non plus** veut pas sauter (25-Ge-Adv11)
         "but him neither wants to jump"
     b. mais **lui également** il a peur (25-Ge-Adv02)
         "but him also he is afraid"
     c. au final **lui aussi** il se jette par la fenêtre (29-Ge-Adv08)
         "in the end him too he throws himself through the window"

However, most of them are still associated with the preverbal position, which is the clearest in terms of scope, and quite often accompanied by left dislocations, as in (12bc).

Finally, the incorrect initial position is still attested, but only in one subject (S14) and only with *aussi*.

With the exception of such occurrences, the distribution of additive particles in ADV learners is, on the whole, rather close to French native preferences. The only feature distinguishing the L2 production seems to be the absence of pronoun doubling in the position after the finite verb.

The frequent presence of dislocated structures (such as *Mr. Rouge, il . . .* or *lui aussi il . . .*) is, however, intriguing. In the light of previous research, we therefore explore Thörle's hypothesis about German learners' tendency to overmark contrastive topics in additive utterances. For this purpose, we take into account both the presence of strong pronouns and of left dislocations, which is another means to highlight the contrastive status of the subject. Table 6 reports the examples of utterances that will be considered as unmarked vs. marked for contrastive topics and the possible position of the AI.

Table 6. Marked expressions of contrastive topics in additive utterances.

| AI Position | Unmarked Expression | Marked Expression | | |
		Pronominal Strengthening	Left Dislocation	Both Procedures
PreV	X *aussi* va se coucher X *aussi* saute	X *lui aussi* va se coucher X *lui aussi* saute	X *aussi*, il va se coucher X *aussi*, il saute	X *lui aussi* il va se coucher X *lui aussi* il saute
postV	X va *aussi* se coucher X saute *aussi*	X va *lui aussi* se coucher X saute *lui aussi*	X, *il* va *aussi* se coucher X, *il* saute *aussi*	X *il* va *lui aussi* se coucher X *il* saute *lui aussi*
final	X va se coucher *aussi*	X va se coucher *lui aussi*	X, il va se coucher *lui aussi*	X *il* va se coucher *lui aussi*

Note that left dislocations are not attested in the additive utterances in German L1, nor the presence of pronoun doubling, although highlighting of the subject is in principle possible, as in (13).

13. Herr Blau, der hat das Feuer gesehen.
     "Mr. Blue, he has seen the fire"

As Table 7 shows, both groups of learners use left dislocations in additive utterances more often than French native speakers do. In particular, L2 ADV learners indeed overmark contrastive topics (almost 39%) in comparison to the French control group (28.5%), both with left dislocations and strong pronouns and by combining the two means, whereas INT do so to a much lesser extent (14.2%), and they do it more frequently with left dislocations. Given the absence of formally similar structures in German, the presence of such structures cannot be attributed to an L1 influence.

Although the number of occurrences is low, as we have considered just the additive sentences, it seems that learners try to signal the contrastive informational status of the entity first by left dislocations and later on with strong pronouns. In other words, the overmarking of contrastive topics seems to develop in the advanced stages, together with a more skillful use of different types of pronouns for reference to entities.

Table 7. Marked expressions of contrastive topics in L1 and L2.

	Pronominal Strengthening			Left Dislocation			Both Procedures			Total
AI Position	preV	postV	Final	preV	postV	Final	preV	postV	Final	
GE NS										
L2 Int	1			1		4	1	1	1	9/63 = **14.28%**
L2 Adv	4		3	5 + 2 *		1	8			23/59 = **38.98%**
FR NS	8	8	1	1						18/63 = **28.57%**

* In these 2 occurrences, *aussi* is placed in the TL incorrect initial position.

4.3. Additive Particles and Prosody: An Exploratory Analysis

Our final analysis consisted in examining pitch contours on the additive *aussi* (postfinite positions) and the NP under its scope produced by German learners with a qualitative approach (17 and 9 utterances by intermediate and advanced learners, respectively). Our goal was to verify whether an L1 prosodic transfer from German to L2 French was observed in this set of data. If this was the case, we expected to observe complex melodic contours on this particle as described in Figure 1 (schemes A and B): either *aussi* produced with a final pitch accent followed by a high plateau or with a falling one preceded by a high plateau.

According to L1 French descriptions (Di Cristo 2016), the additive particle *aussi*, a lexical item, can be produced with both initial and final accented syllable markings at the edge of the *groupe accentuel* that it forms. Figure 8 illustrates the prototypical prosodic pattern of *aussi* in L1 French: a high pitch H* is observed on the last syllable of this word.
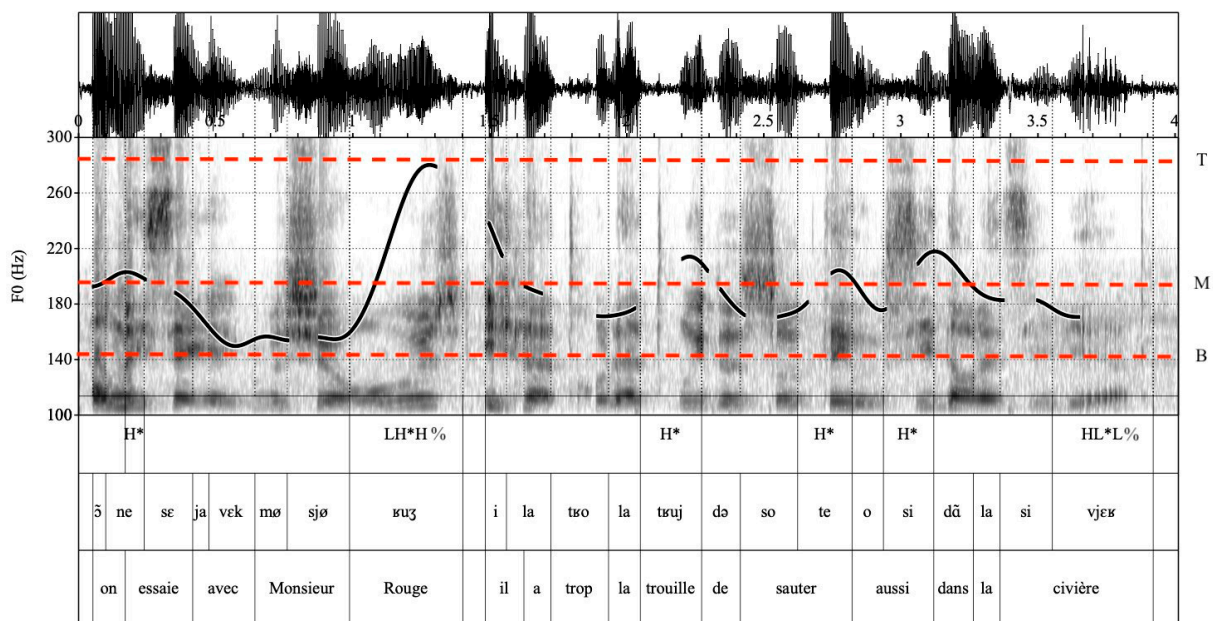
Figure 8. Utterance produced by a French native speaker (25-Sbj01). Accented syllables are indicated with *.

Note that the peak of this melodic movement does not reach the speaker's top range (T). The maximum of the rise is located at her mid-pitch range (M), similarly to other non-final accents associated with the words *trouille* and *sauter*. Since this rise does not display any complex melodic realization (such a rising–falling movement) or an initial accent with an important melodic realization, some scholars conclude that French speakers do not employ prosody in order to convey a semantic/discourse meaning to this particle (Benazzo and Patin 2017).

Examples in Figures 9 and 10 illustrate the melodic movements produced by German learners in L2 French. In Figure 9, the particle *aussi* is produced with a final rise H* on its last syllable. The peak of this rise does not reach the top of the speaker's range (T).
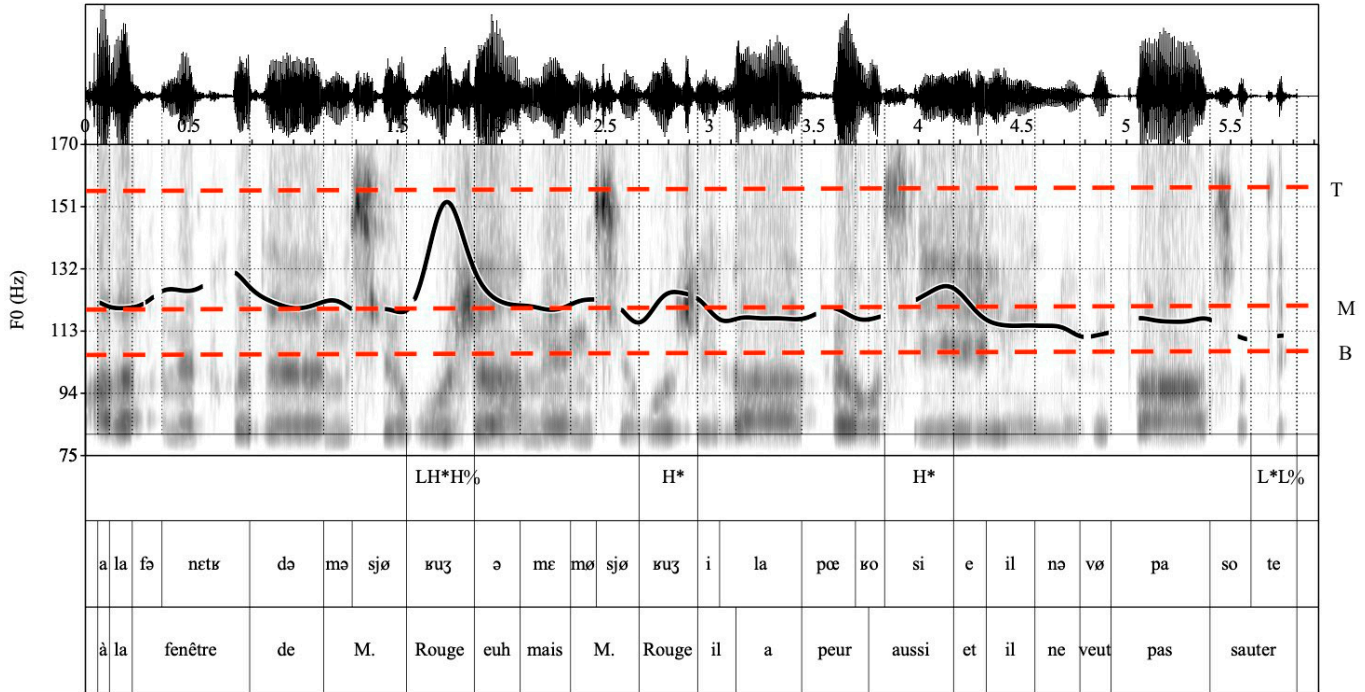
Figure 9. Additive utterance in French L2 with postfinite *aussi* (25-INT sbj01). Accented syllables are indicated with *.
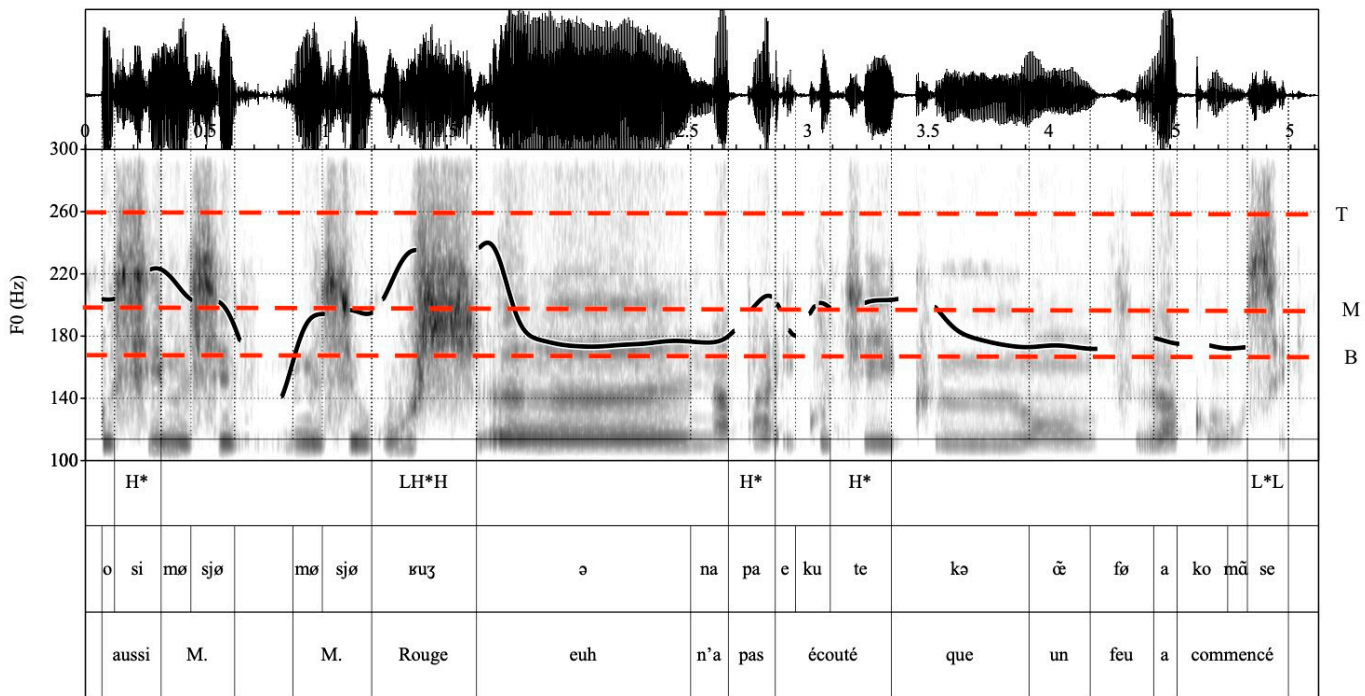
Figure 10. Additive utterance in French L2 with initial *aussi* (8-INT sbj 12). Accented syllables are indicated with *.

In our data, 22 out of 26 utterances were produced with this melodic pattern with an equal distribution across the two proficiency levels. Only in 8 out of 26 utterances did German learners not produce any accented syllable on this particle (3 for intermediates,

5 for advanced). In all the cases, complex melodic configurations were not observed, nor were initial accents on the particle *aussi*.

All in all, these qualitative analyses indicate that L2 melodic movements produced by German learners are not triggered by their L1. Rather, these patterns show that learners do not use prosody for marking the association between the particle *aussi* and the constituent under its scope. More interestingly, in two sentences displaying a similar syntactic structure of L1 German, such as the example in Figure 10 (initial *aussi* placed before the subject NP), intermediate learners did not produce a melodic configuration transferred from their L1: (i) *aussi* carries a final accented syllable, whereas in L1 German, this particle should be unaccented, and (ii) there is no high plateau covering the NP associated with this particle such as in German, but rather a prototypical final rising accent, the latter in accordance with French prosodic patterns. These examples suggest that in cases in which L1 transfer is observed at the syntactic level, learners do not transfer their L1 intonation patterns to the target language.

5. Summary and Discussion

In this study, we examined the expression of additive relations in French L2 by intermediate and advanced learners with L1 German. We considered three dimensions for which French and German differ.

(a) Concerning *the type of additive linking*, the analysis of our control groups reconfirms the stronger tendency of German speakers to mark addition in comparison to French speakers, as attested in previous research. Intermediate learners roughly reproduce their L1 patterns of discourse cohesion both for the frequency of the relation expressed (over-marking of the additive relation) and for the type of means employed (massive use of *aussi*). Advanced learners, instead, reach a repertoire of means and a proportion of markings which is very close to that attested in native French.

A similar development has also been reported in previous studies using the same stimulus (Bonvin and Dimroth 2016; Benazzo and Paykin 2017): the overmarking of the L1 preferred relation, typical of intermediates, fades away and advanced learners thus manage to adopt the TL discourse perspective for additive linking, although this is not the case for the contrastive contexts of the same stimulus (Bonvin and Dimroth 2016; Benazzo et al. 2012).

For this acquisitional dimension, it is clear that the L1 drives the choices of intermediates, but the results hint at another intriguing point, namely, what pushes learners to conform to TL native speakers, given that it is solely a question of "preferential" discourse perspective, as opposed to grammaticality: even if they continued to adhere to their L1 patterns, their production would actually not be considered incorrect nor would they be corrected. It begs the question whether such an acquisitional trend may reflect an effect of larger exposure to (native) input (length of stay in the TL country) or to natural progression in L2 (or a combination of both), in so far as these are the two conditions that distinguish our L2 groups.

(b) The analysis of the native speakers' production also reconfirms the different *distribution* typical of French vs. German additive particles, which share just one common position.

The INT group already exploits all structural placements of the TL (plus the incorrect initial one), although there is not much variation at the individual level. On the whole, two positions are dominant: the frequency of the final position is probably a remnant of a previous stage, whereas the abundance of the postfinite placement is clearly due to an L1 influence. The incorrect initial position has, instead, already been discarded by the majority of the subjects. Similar results are also attested in Thörle (2020) for L1 German–L2 French and, in the opposite direction, in Bonvin and Dimroth (2016). On this point, it seems clear that learners look indeed for similarities in the input and, when they do not find them, abandon the L1 option.

In advanced learners, the three structural positions are almost equally used. In addition, these learners more frequently exploit the option of strong pronouns. Except for their placement, which is concentrated at the beginning of the utterance, advanced learners use additive particles very much like native speakers of French.

The use of strong pronouns in L2 (intermediate and advanced) is clearly not meant as a syntactic device to indicate which constituent is associated with the particle, as such pronouns are almost always produced in the preverbal position which admits only scope over the subject. Moreover, they can also be disjointed from the particle (intermediate level). A closer look at reference to entities in native and L2 additive utterances reveals, however, that the ADV group overmarks contrastive topics, either by using strong pronouns or left dislocations for subject topicalization.

The latter result partially confirm Thörle (2020) remarks on L1 German–L2 French about an L2 tendency to overmark the contrastive status of entities. The group she considers includes learners at the B1/B2-C1 levels. Having separately considered two levels of proficiency, we can add a developmental dimension: specific means to mark contrastive topics are already used at the intermediate level (B1/B2 level), but the overmarking effect is only attested in advanced learners (C1/C2), i.e., once learners have acquired more diversified means for entity reference in L2.

Such results recall the overexplicitness attested in L2 (independent of L1) for reference to entities in contexts of maintenance, such as the use of full NPs instead of pronouns (cf. Hendriks 2003, among others). Our analysis has been limited to additive utterances, in which entities often have the status of contrastive topics. In the future, it would be useful to study reference to entities also in non-contrastive contexts in order to verify if dislocations are indeed associated with a contrastive status of the entity or not.

(c) Concerning *prosody*, Andorno and Turco (2015) found that learning both syntactic and intonation patterns of the additive particles *anche* in L2 Italian and *auch* in L2 German is challenging for L1 German and L1 Italian learners, respectively. The authors claim that producing these particles in canonical positions in utterances is less problematic than producing intonational patterns in a native-like way. Differently from the previous study, our qualitative analyses show that producing TL prosodic patterns on the *aussi* particle is less problematic than other dimensions such as its embedding in canonical syntactic positions. We found that German learners do not use prosodic cues from their L1 for expressing additive relations in L2 French, independently of their proficiency level.

Our observations suggest that learners have quickly discarded the possibility to mark scope by prosody in L2 French, a language in which such a relation is not coded by intonation patterns. Learning not to use intonative markings when the L1 does (German L1–French L2) seems to be an easier acquisitional task than doing the opposite (L1 French–L2 German), especially given the systematic absence of such markings in French in general. This could be the explanation for the lack of L1 influence at the prosodic level already at the intermediate level, in comparison with the other dimensions analyzed, which imply instead taking into account statistical preferences (frequency of the additive vs. similarity relation), availability of different structural positions (embedding of additive particles) or multifunctional grammatical items (weak vs. strong pronouns).

It would, however, be interesting to investigate the role of prosody in French L2 at lower levels of proficiency, in order to determine whether this possibility is indeed used and when it is discarded.

6. Conclusions

The goal of our study was to determine to what extent German learners of French L2 manage to adopt native speakers' preferences for additive linking and whether the L1 influenced any of the three dimensions considered. In doing so, we found that the ADV group is surprisingly close to the target at all levels analyzed: no traces of L1 influence have been detected, but rather a learner-specific tendency to overmark the contrastive status of the relevant entities in discourse.

Traces of crosslinguistic influence are instead visible in the INT group concerning their choice and frequency of additive means (relation to be marked and lexical type) as well as the preferred position of the particles with respect to the different options available in the TL. Learners seem, however, to have quickly discarded the possibility to mark scope by prosody, contrary to their L1, and to use L1 typical placements which are not allowed in French. On the whole, such results support the idea that learners are looking for similarities and avoid L1 options when they do not find them in the TL. In the case of prosody, the task seems to be easier than for the syntax–semantics dimension, as the French input does not encourage similarity at this level, whereas for the type of relation to be marked and the syntactic embedding of the particle, learners have to deal with preferential choices among different possible options.

References

Andersen, Roger. 1983. Transfer to Somewhere. In *Language Transfer in Language Learning*. Edited by Susan Gass and Larry Selinker. Rowley: Newbury House, pp. 177–201.

Andorno, Cecilia, and Giuseppina Turco. 2015. Embedding additive particles in the sentence information structure: How L2 learners find their way through positional and prosodic patterns. *Linguistik Online* 71: 57–79.

Becker, Angelika, and Rainer Dietrich. 1996. The acquisition of scope in German. *Zeitschrift für Literaturwissenchaft und Linguistik* 104: 115–41. [CrossRef]

Benazzo, Sandra, and Christine Dimroth. 2015. Additive particles in Germanic & Romance languages: Are they really similar? *Linguistik Online* 71: 29–50.

Benazzo, Sandra, and Cédric Patin. 2017. French additive aussi: Does prosody matter? In *Focus on Additivity. Adverbial Modifiers in Romance, Germanic and Slavic Languages*. Edited by Anna Maria De Cesare and Cecilia Andorno. Amsterdam: John Benjamins, pp. 107–36.

Benazzo, Sandra, and Katia Paykin. 2017. Additive relations in L2 French: Contrasting acquisitional trends of Italian and Russian learners. In *Focus on Additivity. Adverbial Modifiers in Romance, Germanic and Slavic Languages*. Edited by Anna Maria De Cesare and Cecilia Andorno. Amsterdam: John Benjamins, pp. 265–309.

Benazzo, Sandra, Christine Dimroth, Clive Perdue, and Marzena Watorek. 2004. Le rôle des particules additives dans la construction de la cohésion discursive en langue maternelle et en langue étrangère. *Langages* 155: 76–105. [CrossRef]

Benazzo, Sandra, Cecilia Andorno, Grazia Interlandi, and Cédric Patin. 2012. Perspective discursive et influence translinguistique: Exprimer le contraste d'entité en français et en italien L2. *Language, Interaction & Acquisition* 3: 173–201.

Blumenthal, Peter. 1985. Aussi et Auch: Deux faux amis? *Französisch Heute* 2: 144–50.

Bonvin, Audrey, and Christine Dimroth. 2016. Additive linking in L2 discourse: Lexical, syntactic and discourse organizational choices in Intermediate and Advanced learners of L2 German with L1 French. *Discours* 18. [CrossRef]

Braun, Bettina. 2006. Phonetics and Phonology of Thematic Contrast in German. *Language and Speech* 49: 451–93. [CrossRef]

De Cesare, Anna Maria. 2015. Additive focus adverbs in canonical word orders. A corpus-based study on It. anche, Fr. aussi and E. also in written texts. *Linguistik Online* 71: 29–54.

Delais-Roussarie, Elisabeth, Brechtje Post, Mathieu Avanzi, Carolin Buke, Albert Di Cristo, Ingo Feldhausen, Sun-Ah Jun, Philippe Martin, Trudel Meisenburg, Annie Rialland, and et al. 2015. Intonational phonology of French: Developing a ToBI system for French. In *Intonation in Romance*. Edited by Sonia Frota and Pilar Prieto. Oxford: Oxford University Press, pp. 63–100.

Di Cristo, Albert. 2016. *Les Musiques du Français Parlé*. Berlin: Walter de Gruyter.

Dimroth, Christine. 2002. Topics, Assertions, and Additive Words: How L2 Learners Get from Information Structure to Target-Language Syntax. *Linguistics* 40: 891–923. [CrossRef]

Dimroth, Christine. 2006. The Finite Story. Max-Planck-Institute for Psycholinguistics. Available online: https://www.iris-database.org/iris/app/home/search;jsessionid=FEDEBE45A55A02D06249396FDB770E9E?query=Dimroth (accessed on 25 January 2021).

Dimroth, Christine, Cecilia Andorno, Sandra Benazzo, and Josje Verhagen. 2010. Given claims about new topics. How Romance and Germanic speakers link changed and maintained information in narrative discourse. *Journal of Pragmatics* 42: 3328–44. [CrossRef]

Gast, Volker, and Johan van der Auwera. 2011. Scalar Additive Operators in the Languages of Europe. *Language* 87: 2–54. [CrossRef]

Hendriks, Henriette. 2003. Using nouns for reference maintenance: A seeming contradiction in L2 discourse. In *Typology and Second Language Acquisition*. Edited by Anna Giacalone Ramat. Berlin: Mouton de Gruyter, pp. 291–326.

König, Ekkehard. 1991. *The Meaning of Focus Particles. A Comparative Perspective*. London: Routledge.

Mertens, Piet. 2014. Polytonia: A system for the automatic transcription of tonal aspects in speech corpora. *Journal of Speech Sciences* 4: 17–57.

Nølke, Henning. 1983. *Les Adverbes Paradigmatisants. Fonction et Analyse*. Copenhague: Akademisk Forlag.

Perdue, Clive, Sandra Benazzo, and Patrizia Giuliano. 2002. When finiteness gets marked: The relation between morphosyntactic development and use of scopal items in adult language acquisition. *Linguistics* 40: 849–90. [CrossRef]

Ringbom, Hakan, and Scott Jarvis. 2009. The Importance of Cross-Linguistic Similarity in Foreign Language Learning. In *The Handbook of Language Teaching*. Edited by Catherine J. Doughty and Michael H. Long. Oxford: Wiley-Blackwell, pp. 106–18.

Thörle, Britta. 2020. «Et le chien aussi i' regarde» particule additive *aussi* et structure informationnelle en français L2. *Language Interaction Acquisition* 11: 298–324. [CrossRef]

Article

Vocabulary Knowledge in L3 French: A Study of Swedish Learners' Vocabulary Depth

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Abstract: The overall aim of the present study is to achieve a better understanding of young instructed Swedish learners' vocabulary knowledge in L3 French, by examining various aspects of vocabulary depth. Previous research has shown that this learner group's vocabulary size increases systematically, and at a relatively fast pace, from grade 6 through grade 9 (i.e., from the first year of studies of French and onwards; from age 12 to 15). However, vocabulary size tests only give a quantitative estimation about how many words test takers know, and do not say anything about qualitative aspects of word knowledge. Vocabulary depth, on the other hand, concerns such aspects. In order to arrive at a more complete picture of learners' word knowledge, both size and depth need to be examined. In the present study, aspects of vocabulary depth were analyzed in learners' word choices in a written elicited production task. The data consist of 105 written retellings from students in grades 6, 7, 8, and 9. Word choices pertaining to various key elements in the retellings were included in the analysis, with a focus on orthographical, semantic, and morphological aspects of deep word knowledge. The results show that orthographical knowledge is similar throughout the years, with the same spelling difficulties occurring in all the grades at similar rates. Semantic and morphological knowledge seem to develop at a quicker pace, with the 8th and 9th graders having a deeper knowledge of these aspects. It can be concluded that some, but not all, aspects of deep knowledge start to develop during the first four years of studies of French.

Keywords: vocabulary depth; L3 French; vocabulary knowledge; spelling; form-meaning; word parts

1. Introduction

The overall purpose of the present study is to achieve a better understanding of Swedish learners' vocabulary knowledge and development in French as a third language (L3) by examining aspects of vocabulary depth. Vocabulary depth can be defined as "how well a word is known" (Yanagisawa and Webb 2020, p. 371), while vocabulary size, another frequently studied aspect of vocabulary knowledge, relates to how many words learners know (without indicating how well these words are known). As stated by Schmitt (2010), it is an impossible task to examine all aspects of vocabulary knowledge in one single test battery. This is because of the complexity of vocabulary knowledge, including a large number of different aspects related to the words' form, meaning, and use (cf. Nation 2020). Thus, vocabulary studies necessarily have to focus on a limited number of aspects, but taken together, different studies can provide a more comprehensive picture of vocabulary knowledge and development (Schmitt 2010). This is what the present study aims to do. It builds on previous research by Lindqvist (2018), who examined the vocabulary size of learners of L3 French in grades 6 through 9 (age 12–15) in the Swedish school system. In short, the results showed a relatively rapid and substantial growth in vocabulary size throughout the years, especially in comparison with previous studies on similar groups in other settings (Milton 2008; David 2008). However, as pointed out above, vocabulary size only measures how many words learners know (as estimated in a test), and does not say anything about how well the words are known. In a follow-up study, Lindqvist (2020)

re-examined the results of the previous study, and showed that an important proportion of the known words turned out to have cognates—defined as words with similar forms and meanings in two or more languages—in either Swedish, English, or both of these languages. These results indicate that the vocabulary sizes might have been over-estimated, in the sense that learners may have indicated that they knew a word because they recognized it from their first language (L1) and/or their second language (L2). Knowing cognates, and taking advantage of this knowledge, is one of the factors that guide vocabulary acquisition (Laufer 1997; Peters 2020), and it is also well established that L1 and L2 lexical influences are part of learners' vocabulary acquisition, knowledge, and use more generally (Booth and Clenton 2020; Ecke 2015; Ringbom 2007). In two other studies, Lindqvist (2015, 2019) examined L1 and L2 lexical influences in the same grades, but in a different task. This time, the learners were to retell a short cartoon in writing. The results showed that the learners made use of both their L1 and L2 to a large extent when writing in L3 French, with L2 English being the major transfer source.

Cognate knowledge, and other types of L1 and L2 lexical influences, are part of the qualitative dimension of vocabulary knowledge, i.e., vocabulary depth, while vocabulary size (or breadth) is a quantitative dimension (Yanagisawa and Webb 2020). Apart from cognates and L1 and L2 lexical influences, aspects such as orthography, pronunciation, meaning senses, and collocational knowledge are all part of vocabulary depth. Returning to the same data set as in Lindqvist (2019), the present study will examine some of these aspects in Swedish learners' written production in L3 French, with a view to arriving at a more complete picture of Swedish learners' vocabulary knowledge. Importantly, according to Yanagisawa and Webb (2020, p. 372), research on vocabulary depth has the potential to shed light on the ways in which vocabulary knowledge develops and how it is related to language learning in general. More precisely, the present study will focus on the use of certain key elements in the writings of the students and how they are rendered in terms of some of the qualitative aspects of form and meaning suggested by Nation (2020), namely spelling, form-meaning relationship, and word parts. In his well-known overview of what is involved in knowing a word, Nation (see Nation 2020, p. 16, for a recent version) makes a distinction between *form*, *meaning*, and *use*. These components are further divided into different aspects. The form component, for example, includes the aspects *spoken*, *written*, and *word parts*. These aspects are also all divided into receptive and productive knowledge. For the purposes of this study on written production, formal word knowledge primarily relates to spelling: "How is the word written and spelled?", and word parts: "What word parts are needed to express the meaning?" (Nation 2020, p. 16). As for the meaning component, this study will examine the relationship between form and meaning: "What word form can be used to express this meaning?" (Nation 2020, p. 16). By using a retelling, where certain key elements need to be rendered in order to tell the story accurately, we will be able to examine whether the learners make use of appropriate word forms for a given meaning. Schmitt (2010, p. 224) calls this way of examining vocabulary depth the "dimensions approach" (others, such as Yanagisawa and Webb 2020, use the term "components approach" in accordance, one would assume, with Nation's use of "components"). This approach "involves specifying some of the types of word knowledge one can have about lexical items, and then quantifying participants' mastery of those types" (Schmitt 2010, p. 224). One of the advantages of such an approach is that it provides the opportunity to obtain a relatively comprehensive overview of word knowledge: "while measuring knowledge of several types of word knowledge is time consuming and limits the number of lexical items that could be studied, it can produce a very rich description of vocabulary knowledge" (Schmitt 2010, p. 224). Naturally, the dimensions approach does not come without limitations, as noted by Schmitt. Obviously, it is impossible to tap into all the different aspects that are involved in word knowledge in one single study. Nevertheless, as already mentioned, studying some aspects thoroughly will contribute to our knowledge about learners' vocabulary depth, by adding to the existing research

(see also Read 2000). The methodology will be explained in more detail in the next section (Materials and Methods).

Previous research on vocabulary depth has mainly focused on L2 English (e.g., Read 2000, 2004; Qian 2002; Schoonen and Verhallen 2008; Schmitt 1998; Webb 2005; Gyllstad 2009). However, if we are to gain more knowledge about vocabulary depth, and vocabulary learning in general, languages other than English need to be examined as well. As regards French, different aspects of vocabulary depth have been investigated in a few studies. Some of them examined some aspect of vocabulary depth, but did not interpret the results within a vocabulary depth framework. That is often the case with studies on collocations and lexical richness, for example (cf. Tidball and Treffers-Daller 2007; Forsberg Lundell and Lindqvist 2014a). Most of the studies seem to have looked at advanced learners, but they are very different in nature. Some of them used different tests in order to measure vocabulary depth (Greidanus et al. 2004; Forsberg Lundell and Lindqvist 2014b), while others looked into different types of language production data (Ovtcharov et al. 2006; Lindqvist 2010, 2012; Tidball and Treffers-Daller 2007). With regards to the studies that interpreted the results within a vocabulary depth framework, Greidanus et al. (2004) found strong correlations between receptive vocabulary size and receptive vocabulary depth in Dutch advanced L2 French learners. Forsberg Lundell and Lindqvist (2014b) examined vocabulary depth as part of a larger test battery in Swedish users of French as a second language, who had been living in France for several years. The results showed that the users, while approaching native-likeness on other aspects, did not perform in a native-like way on the receptive deep knowledge test and in the productive collocation knowledge test, which indicates that these aspects are difficult to master.

To the best of my knowledge, there is no study that is similar to the present one, considering target language, age groups, proficiency level, and lexical aspects. The reason why aspects of deep knowledge have mainly been studied in advanced learners is probably that many such aspects tend to develop at later stages during the learning process, in particular those related to meaning and use. There are, however, good reasons to examine to what degree deep knowledge occurs and how it develops at lower proficiency levels in order to gain more knowledge about this part of vocabulary knowledge and how it is related to language learning more generally. There is also a lack of studies examining vocabulary learning from an L3 perspective. It might not always be applicable, but in many cases the learners have acquired another foreign language in addition to the language being tested. L3 research has repeatedly shown that not only the L1, but also previously acquired L2s, even those in which the learners have a low proficiency level, influence the learning of an L3 (De Angelis et al. 2015; Ringbom 2007; Ecke 2015). It is therefore important to take all the languages the learners know into account. With respect to the learners of the present study, it is inevitable to adopt an L3 perspective, French being the second foreign language they learn in school, after English. As indicated above, previous research on this particular language combination clearly shows that English plays an important role during the language learning process. Crucially, L2 English seems to be an asset in several ways, especially as far as vocabulary comprehension is concerned. Whether English or other background languages play a role in Swedish learners' vocabulary depth is still an open question. It is hoped that the present study will shed light on this question. The following research questions were asked:

1. What characterizes Swedish learners' vocabulary depth in French in grades 6, 7, 8, and 9?
2. In what ways does Swedish learners' vocabulary depth in French develop from grade 6 through grade 9?

The results indicate that while some aspects of vocabulary depth seem to develop over the years, at least to a certain degree, other aspects remain difficult to master even in the 9th grade, that is, after three and a half years of studies of French in school.

2. Materials and Methods

As noted in the introduction, vocabulary depth has been examined by using different types of tests in previous studies. Such depth tests have mainly been developed for L2 English, most of them tapping into learners' receptive deep knowledge by asking them to rate their knowledge of specific words. Different scales have been proposed (e.g., Wesche and Paribakht 1996) but they have been questioned (Schmitt 2010). There are also other test formats, such as association tests (see Read 2020 or Yanagisawa and Webb 2020). For French, Bogaards (2000) developed the *Euralex French Tests*, which target semantic knowledge, fixed expressions, and cultural aspects. The tests are aimed at very advanced learners of L2 French and are therefore not suitable for the participants of the present study. Thus, as no appropriate test seems to exist, it was decided to use written retellings as material in this study and to focus on the words that the learners actually use.

Vocabulary depth was investigated in written retellings gathered from 105 Swedish students in grades 6, 7, 8, and 9 in a school in the Stockholm area. The students were asked to try to retell a one-page cartoon, The Dog Story (see Appendix A), in writing using only pen and paper. This short cartoon has been used in previous research on foreign language learning (e.g., Lindqvist 2015; Sánchez 2011). As explained by Lindqvist (2015), "it contains six pictures telling the story about two children, a boy and a girl, who, waving goodbye to their mother, leave their house for a picnic. They have brought a picnic bag with them. As they arrive in the woods it turns out that their dog had been hiding in the basket and that he has eaten all the food". The students were given 20 min of an ordinary class to complete the task. They had to work individually and were not allowed to use dictionaries. The researcher and the teacher encouraged them to try to communicate as much as they could of what they saw on the pictures.

Vocabulary depth was examined in the learners' word choices in the retellings. Word choice analyses are efficient because many aspects of word knowledge can be analyzed at the same time (Jarvis and Pavlenko 2008). The key elements included in the analysis are: *mère* ('mother'), *fille* ('girl'), *garçon* ('boy'), *chien* ('dog'), *panier* ('basket'), *manger* ('(to) eat'), *dire* ('(to) say'). They were chosen because they are central to the story, which increases the chances that the learners try to use them. This selection will allow us to make more reliable comparisons between the groups. As explained in the introduction, the analysis will focus on *spelling*: "How is the word written and spelled?"; *form-meaning relationship*: "What word form can be used to express this meaning?"; and *word parts*: "What word parts are needed to express the meaning?" (Nation 2020, p. 16). More precisely, spelling will be analyzed in the first four words, form-meaning relationship in the last three words, and word parts (grammatical morphemes) in the last two words, i.e., the verbs. It is important to note that in studies on the development of word knowledge "target words can be the words that participants do not know, or words that are partially known; some components of word knowledge may be known while other components may not be known" (Yanagisawa and Webb 2020, p. 381). This is clearly the case with the selected words. Some of them, such as *fille* ('girl') and *garçon* ('boy') are introduced early in teaching materials and should not be new to any of the students, while others, such as *panier* ('basket') may not have been introduced yet. The chosen verbs should have been introduced in all grades, but one would assume that they are partially known considering the rich verb morphology of French.

After completion of the writing task, the students were asked to fill in a short background questionnaire regarding their experiences with other languages. They all had Swedish as their first language and English as their second language (see Table 1). They had been learning English from grade 1, 2, or 3, that is at the age of 7, 8, or 9. In general, Swedish students have a relatively good command of English from an early age, possibly because of constant input from various sources such as games, the Internet, and the surrounding society. Thus, it is safe to say that English is their L2, chronologically, and most likely also in terms of proficiency. Consequently, French is their third language (L3). The data collection took place in January/February. At that point, the 6th graders had been taught French for one semester, the 7th graders for three semesters, and so on. While the

proficiency level of the students has not been tested, according to the national curricula students in grades 6 and 7 are supposed to have reached the A1.1 level according to the CEFR scale (Council of Europe 2001), students in grade 8 A1.2, and students in grade 9 A2.1 (Skolverket 2019). It is also worthwhile mentioning that Swedish learners do not receive much input from French apart from the language they encounter in the classroom. The French teaching focuses on both written and spoken language, and on reception as well as production and interaction. From grade 8, it is possible, but not mandatory, for pupils in the Swedish school system to start learning an additional foreign language, usually German or Spanish, which is why some of the students have knowledge of these languages. Some students also indicated that they had rudimentary knowledge of other languages thanks to relatives. All the foreign languages apart from the target language are labeled L2 (cf. Lindqvist 2015). Table 1 shows the background information regarding the students.

Table 1. Background information about the students (n = 105).

Grade	Age	Number of Students	Semesters of Study of French	L1	L2(s)
6	11/12	17	1	Swedish	English (17) Finnish (1) Norwegian (1) Polish (1)
7	12/13	26	3	Swedish	English (26) Danish (1)
8	13/14	35	5	Swedish	English (35) Chinese (2) Spanish (16) German (1)
9	14/15	27	7	Swedish	English (27) German (2) Spanish (12) Chinese (4)

Ethical considerations were taken into account before the data collection. Consent was obtained from parents and teacher, and students as well as parents were informed that the data would be anonymized and used for research purposes only.

The total number of words as well as the average in the different grades are shown in Table 2. Clearly, there is a considerable variation in text length between the grades. This is expected, and is in all probability due to different levels of proficiency. The lowest number of words produced was seven (by a student in grade 6) and the highest was 263 (by a student in grade 9). It is also clear that the average number of words increases from year to year, with the lowest average in grade 6 and the highest in grade 9. The total number of words is highest in grade 8, though. This is because the number of students is the highest in this grade. Finally, it can be noted that the number of words produced has a considerable range in all grades.

Table 2. Total number of words produced, range and average.

Grade	Words Produced	Range	Average
6 (n = 17)	503	7–74	26
7 (n = 26)	1835	18–164	66
8 (n = 35)	3516	34–197	100
9 (n = 27)	3066	62–263	114

3. Results and Analysis

This section presents the results pertaining to the three aspects of vocabulary depth: spelling, form-meaning, and word parts.

Table 3 shows the number of occurrences of each spelling variant, followed by the number of learners using the form, as well as the accuracy rates for each target word—*mère*, *fille*, *garçon*, and *chien*—in the different grades. Overall, the results seem to suggest that spelling difficulties are consistent throughout the years, with practically the same variants occurring in each grade. According to these results then, the learners do not seem to develop their deep knowledge with respect to spelling.

Table 3. Results—spelling (word types, occurrences, number of learners, accuracy rates).

Grade	Mère	Total	Acc.Rate	Fille	Total	Acc.Rate	Garçon	Total	Acc.Rate	Chien	Total	Acc.Rate
6 (n = 17)	mère (2, 2), mere (1, 1), mére (3, 2), maire (1, 1)	7	29%	fille (21, 12)	21	100%	garçon (16, 8), garquon (1, 1), garcon (6, 3), garzon (1, 1)	24	67%	chien (13, 10), chain (4, 1), chian (2, 1)	19	81%
7 (n = 26)	mère (19, 11), mére (5, 4)	24	79%	fille (48, 21), filles (1, 1)	49	98%	garçon (56, 18), garcon (2, 2)	58	97%	chien (68, 26), chienne (2, 1), chie (1, 1)	71	96%
8 (n = 35)	mère (41, 22), merè (3, 1), mére (10, 4), méré (1, 1), mere (1, 1), mèrè (3, 1)	59	69%	fille (87), fill (1, 1), filles (2, 2)	90	97%	garçon (71, 23), garcon (18, 4), garson (1, 1)	90	79%	chien (118, 33)	118	100%
9 (n = 27)	mère (27, 15), mere (5, 2), mére (6, 3), mèrè (2, 1)	40	68%	fille (29, 17), fill (5, 3), filles (5, 2)	39	74%	garçon (56, 17) garcon (3, 2)	59	95%	chien (86, 24), chain (2, 1), cien (1, 1), chein (6, 1)	95	91%

Starting with *mère* ('mother'), some differences between the grades appear when looking at the number of occurrences of each spelling variant. In particular, in grade 6 the variants are more equally distributed, while in the other grades the vast majority of the occurrences are correctly spelled, suggesting that the correct spelling is starting to stabilize from grade 7 onwards. Interestingly, the opposite is true for *fille* ('girl'), with a 100% accuracy rate in grade 6. However, the spelling is nearly entirely correct in grades 7 and 8 too, with a few occasional uses of other variants, often by one learner only. There are more occurrences of incorrect spelling variants in grade 9. Taken together, the results seem to indicate that the spelling of *fille* is relatively stable over the years. As for *garçon* ('boy'), the correct spelling along with the form garcon dominate in grades 7, 8, and 9, while the 6th graders seem to have more difficulties with this word, producing more variants. Finally, the spelling of *chien* ('dog') is largely mastered in all grades, with a few occurrences of other variants in each grade, with the exception of grade 8 where no variants are used.

In summary, the results regarding spelling seem to suggest that it is a difficult aspect to master overall, but at the same time most of the occurrences are correctly spelled. As noted by Yanagisawa and Webb (2020, p. 376), spelling is an aspect that can be known to different degrees. According to these authors, it can therefore be relevant to analyze strength of knowledge as well. The strength of knowledge can vary from no knowledge to partial knowledge to full knowledge. As regards spelling, partial knowledge may include "being able to write the word with an inaccurate but identifiable spelling," while full knowledge would imply being able to "quickly produce the complete and exact spelling of a word" (p. 376). In Table 3, the accuracy rates relate to the degree of knowledge, where 100% would imply "full knowledge," which is rarely attained. It can be argued that most of the spelling variants have been written "with an inaccurate but identifiable spelling," suggesting that the learners have partial knowledge of the word form. As for *mère*, with the exception of *maire*, the different variants all contain the four letters m+e+r+e, but with incorrect use of accents. While some of the variants would result in a different pronunciation, it can still be argued that they are identifiable in writing. Undoubtedly, for somebody reading

the retellings, these forms would be recognized and understood. This is not necessarily the case with *maire*, but it is a homophone to *mère*, so even if the spelling is incorrect, it would be perceived as correct in speech. It is unclear, however, if it would be perceived as a variant of *mère* in writing. The different spellings of *fille* (*fill, filles*) are also identifiable and recognizable, indicating a high degree of partial knowledge. Furthermore, they would result in a correct pronunciation. This is not true for all the variants of *garçon*, where only *garson* would be pronounced in a similar way. The other spellings would alter the pronunciation, with garcon and *garquon* resulting in a /k/ sound and *garzon* in a /z/ sound instead of a /s/ sound. However, it can still be argued that these forms are identifiable in writing, but it seems that the strength of knowledge is weaker for this word. Some of the suggested variants for *chien*: *chain, cie, chein,* and *chian* would probably not be immediately recognized as spelling variants unless the reader were familiar with the story. In grade 6, these variants represent six of the 19 occurrences, while in the 9th grade they constitute nine out of 91 occurrences. The strength of knowledge thus seems to increase over the years with regards to this word. Having analyzed the strength of knowledge, it can be concluded that full orthographical knowledge is rare overall, and that partial knowledge is more common in all grades. Moreover, the degree of the strength of knowledge seems to vary from word to word, and also between the grades.

Let us now look at the results with respect to the form-meaning aspect. As word parts will be examined separately, the verbs used are given in the infinitive form in Table 4.

Table 4. Results—form-meaning relationship (occurrences, number of learners).

Grade	Panier	Dire	Manger
6 (n = 17)	korg (1, 1)	discuter (1, 1)	manger (1, 1), *äta* (1, 1 Sw. 'manger')
7 (n = 26)	panier (2, 1), basket (36, 15), basquette (3, 1), baskuette (2, 1), baskette (1, 1), korg (2, 1), box (3, 1), baskét (1, 1), baskèt (1, 1)	parler (1, 1), savoir (1, 1)	manger (6, 6), *äta* (2, 2 'manger'), *comer* (1, 1 Sp. 'manger'),
8 (n = 35)	bascet (1, 1), korg (6, 3), basket (31, 10), bascett (5, 2), sac (5, 2), basquete (1, 1), basquet (1, 1), basquette (3, 1), valise (1, 1), bag (3, 1), bascette (3, 1) baskuette (1, 1), picnickbasket (1, 1), väskan (1, 1)	parler (5, 4), dire (2 1), *säga* (1, 1 'dire')	manger (43, 21)
9 (n = 27)	panier (13, 4), boule (1, 1), basket (23, 10), basquet (4, 2), basquette (7, 2), bascet (2, 1), pichet (5, 1)	dire (4, 4), parler (2, 2), pouvoir (1, 1), faire (1, 1), *shout* (1, 1)	manger (33, 22)

Table 4 shows that only some of the 9th graders seem to be able to relate the correct target word form *panier* ('basket') to the intended meaning (there are also two occurrences of the word form in the 7th grade, both produced by the same learner). Moreover, these learners use other French words but with completely different meanings than the intended one: *boule* ('ball') and *pichet* ('pitcher', 'jug'). The 8th graders also use other French words: *valise* ('suitcase') and *sac* ('bag'), which are closer to the intended meaning. It is striking that many of the learners in grades 7, 8, and 9 make use of the English word *basket*, either as pure code-switches, or with different kinds of adaptations: *basquette, basquet, bascet, baskuette, basquete, baskét, baskèt*. There are also code-switches in *bag* and *box*, which could be

either Swedish or English. The Swedish equivalent word *korg* is also used in all grades but grade 9. In grade 6, this is the only word used. In conclusion, the word panier is starting to become known only in the 9th grade. As regards strength of knowledge, it can be argued that the learners in this grade have partial knowledge of the form-meaning relationship, while in the other grades the learners have no knowledge of the French word form. In such cases, it is clear that the learners make use of their word knowledge in previously acquired languages, either by using the exact Swedish or English word form, or by trying to adapt a word form into French on the basis of English. Thus, their vocabulary is characterized by L1 and L2 influences to a large extent, and more so in the lower grades.

Moving on to the first verb, *dire* ('say') it is not used in grades 6 and 7, but it appears in grades 8 and 9. The verb *parler* ('speak') is frequently used, but it is not entirely appropriate in this particular context. Other suggestions in grade 9 with more general meanings are *faire* ('do') and *pouvoir* ('can') (both used as plain lexical verbs), as well as the English verb shout. As for the verb *manger* ('eat') it is used in all the grades, and it is the only choice in grades 8 and 9. The learners in grades 6 and 7 resort to the corresponding word in Swedish and Spanish. It thus seems that *dire* is better mastered from grade 8 onwards, while *manger* is known in all the grades, at least as far as the meaning is concerned. And again, the learners in the lower grades resort to their L1 and L2 (mainly Swedish but there is also influence from Spanish comer) when they do not know the French word form for the intended meaning. Let us now look at the learners' knowledge of word parts with respect to these verbs.

To begin with, Table 5 shows that the number of different verb forms increases from grade 6 onwards, most notably with regards to manger. In order to examine the learners' word knowledge concerning word parts—what word parts can be used to express the meaning-the analysis will focus on verb morphology, that is whether the verb inflections are correct in terms of person and tense (there are no contexts in which a different mode than the indicative should be used). Starting with *dire*, it is only used twice in grade 8, in the present tense, and by the same learner. The inflections are correct:

Table 5. Results—word parts: verb forms (occurrences, number of learners).

Grade	Dire	Manger
6	-	mangez (1, 1)
7	-	manger (4, 4), mangé (1, 1), mange (1, 1)
8	dit (1, 1), disent (1, 1)	mange (17, 12), mangé (15, 13), manger (8, 3), mangons (2, 2), manche (1, 1)
9	dire (1, 1), dirent (1, 1), dis (1, 1), dit (1, 1)	mangé (11, 10), mange (11, 11), manger (4, 4), mangais (3, 1) manges (2, 2), mage (1, 1), mangeait (1, 1)

1. La mère **dit** aurevoire a les enfants
   'The mother says goodbye to the children'

2. Les enfants sors et **disent** aurevoire à la mère
   'The children leave and say goodbye to the mother'

In grade 9, there are four occurrences of the verb *dire*, out of which one is correctly used:

3. Et la mère **dit**—au revoir
   'And the mother says—goodbye'

These results indicate that *dire* is far from mastered, but perhaps mainly from a form-meaning perspective because few learners use the verb, indicating no knowledge. It is difficult to draw any conclusions with respect to morphological knowledge on the basis of such few occurrences of this verb. On the other hand, different forms of *manger* occur more frequently in the data. In grade 6, however, there is only one occurrence:

4. Le chien **a mangez**
   'The dog has eaten'

In this example, the learner makes use of the second person plural ending *–ez* in the present tense, when trying to use the *passé composé*. The correct form would be *mangé*. However, the pronunciation of these two forms is identical, which would make *mangez* identifiable and accurate in speech (cf. discussion on strength of knowledge above).

There are six occurrences of three different forms of *manger* in the 7th grade, with one correct example of the verb in present tense in third person singular:

5. Il **mange** les sandwichs
   'He eats the sandwiches'

The other word forms were not used with the correct meaning, suggesting that the verb inflections of this verb are not mastered in grade 7.

Mange is the most commonly used form of the verb among the 8th graders. This form indicates the present tense in third person singular. Ten of the 17 occurrences are used in this sense, while seven are used with other meanings, for example in combination with an auxiliary verb, where the infinitive would have been the correct form (ex. 6). *Mangé*, the past participle form, is also frequently used. Eleven of the 15 occurrences are correctly used to express the *passé composé* (ex. 7). Finally, the infinitive is mainly used in instances where a finite verb would have been appropriate, which indicates that the inflection was not mastered (ex. 8).

6. Nous allons **mange**
   'We are going to eat'

7. Il a mangé
   'He has eaten'

8. Le chien manger
   'The dog eat'

Mangé and *mange* are the most frequently used forms in grade 9 as well. The first form is correctly used in all occasions but one, while the second one is more inconsistently used with six correct uses and five incorrect. The incorrect uses mainly occur in cases where the third person plural *mangent* is required:

9. La garçon et le fille mange le picnic . . . ils mange
   'The boy and the girl eat the picnic . . . they eat'

Again, this form would have been perceived as correct in speech. The infinitive *manger* is consistantly correctly used together with an auxiliary.

In summary, the results pertaining to word parts show that this is an aspect that develops over the years, with more verb forms in grades 8 and 9 and with more correct ones in grade 9.

4. Discussion and Conclusions

The present study set out to investigate vocabulary depth in Swedish learners of French. While vocabulary depth has often been examined in learners at more advanced levels (Greidanus et al. 2004; Forsberg Lundell and Lindqvist 2014b), the participants of this study were at the beginning stages in the learning process. The main objective of the study was to achieve a better understanding of these learner groups' vocabulary knowledge. The analysis focused on word choices in writing retellings of a short picture story, and examined these by using a components, or dimensions, approach (Nation 2020; Yanagisawa and Webb 2020, Schmitt 2010). More precisely, three aspects of the dimensions of form and meaning were investigated: spelling, form-meaning relationship, and word parts (Nation 2020). The first research question was: What characterizes Swedish learners' vocabulary depth in French in grades 6, 7, 8, and 9? The analysis of the data suggested that there are two clear characteristic traits. The first one is that the learners' vocabulary

knowledge is characterized by a considerable orthographic variation in all the examined words (*mère, fille, garçon, chien*). Following Yanagisawa and Webb's (2020) suggestion to analyze the strength of knowledge with respect to spelling, it can be argued that few of the words are fully known. Rather, the words are known to different degrees, with many different spelling alternatives, indicating partial knowledge. In many cases, however, the alternative spellings would be identifiable, and thus probably comprehensible, in spite of the divergent orthography. Moreover, the cases where the divergent spelling would result in a pronunciation similar to the intended one would certainly not be perceived as 'divergent' in speech (this is also true for some of the divergent word parts). The second characteristic trait is the fact that the learners' vocabulary is to a large extent influenced by the L1 and the L2. This is particularly obvious in the word choices related to *panier*, but there are also L1 and L2 influences with respect to *dire* and *manger*. L1 and L2 influences seemed to appear when the French word form was not known, that is with respect to the form-meaning relationship. The influences were manifested as both pure code-switches to Swedish, English, and Spanish, and as adaptations of word forms from English into French. These results corroborate the findings in many earlier studies within the L3 field, which have shown that both the L1 and the L2 are important sources of influence in lexical L3 learning (Ringbom 2007; Ecke 2015; Lindqvist 2015). Clearly, in cases where the learners do not know the target language word form, they usually resort to their L1 and L2 vocabularies.

The second research question was: In what ways does Swedish learners' vocabulary depth in French develop from grade 6 through grade 9? The short answer to that question would be that while some aspects seem to develop, it appears that others do not. In fact, the results showed that there is considerable variation with respect to the aspects that were analyzed, and it is difficult to see clear patterns. As for spelling, it seemed that difficulties remained over the years, with indications of differences between grade 6 and the other grades. This is not surprising, given the well-known discrepancy between spelling and pronunciation in the French language. However, when applying Yanagisawa and Webb's (2020) concept of strength of knowledge, it turned out that there was a relatively high degree of knowledge of all the examined words. Crucially, the spelling variants were often identifiable and would most likely be understood by a potential reader of the text.

There were clearer indications of development regarding the form-meaning and word parts components. The results suggested that these aspects are more clearly developed in grades 8 and 9, as opposed to grades 6 and 7. Furthermore, the learners in grade 9 master both aspects better than the learners in grade 8. It has often been pointed out that learners need to be at more advanced stages in order to develop vocabulary depth, which is probably why most previous studies have examined this aspect in advanced learners (Greidanus et al. 2004; Forsberg Lundell and Lindqvist 2014b). However, the present study has shown that some aspects do develop even at lower stages of proficiency. Recall that the learners of the present study are supposed to be at the A1–A2 levels according to the CEFR scale (Council of Europe 2001). While previous research has shown considerable vocabulary gains from grade 6 through grade 9 (Lindqvist 2018), that does not necessarily imply that deep knowledge develops at the same rate. It is therefore interesting to note that there seems to be some development, in particular with regards to form-meaning relationship and word parts.

In conclusion, the present study has shed light on some aspects of vocabulary depth in Swedish learners' L3 French and in what ways they develop during the first years of study in school. There are limitations to the study in that only a relatively small selection of words and aspects were examined. Also, it would have been interesting to examine the correlation between text length and vocabulary depth. However, as pointed out, these kinds of limitations are necessary in this kind of study (Schmitt 2010). Along with previous research the study contributes to our understanding of these learner groups' vocabulary knowledge. There are many avenues for further research. When it comes to these particular learner groups, more aspects of vocabulary depth need to be studied in order to arrive at a

more complete picture of their vocabulary knowledge, for example, the relation between spelling and pronunciation, the associations between different words, and knowledge about derivations. At a more general level, future studies should focus on vocabulary in French as a foreign language in different learner groups and in different settings.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data are not publicly available yet.

Appendix A
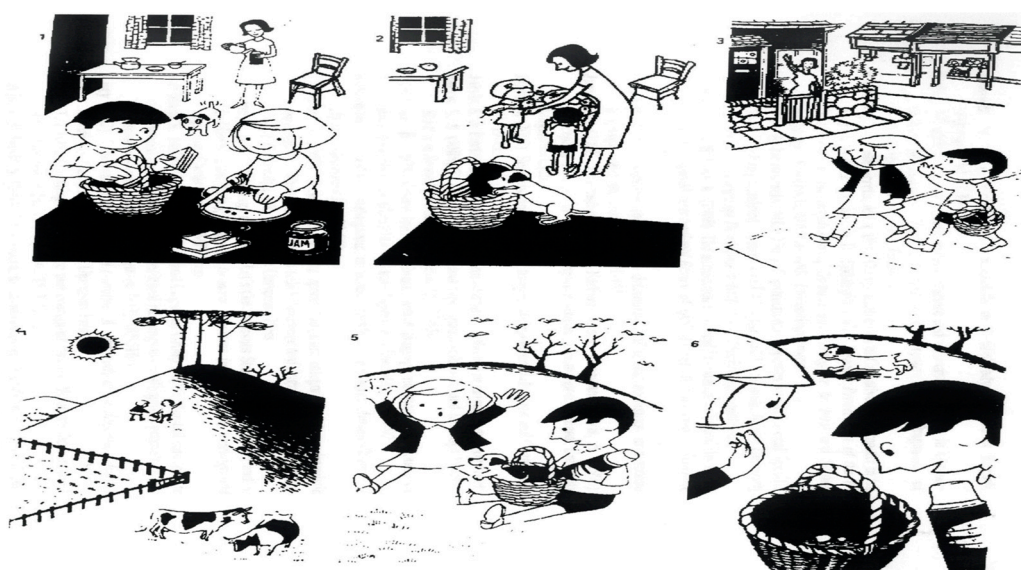
Figure A1. The Dog Story.

References

Bogaards, Paul. 2000. Testing L2 vocabulary knowledge at a high level: The case of the Euralex French Tests. *Applied Linguistics* 21: 490–516. [CrossRef]

Booth, Paul, and Jon Clenton, eds. 2020. *First Language Influences on Multilingual Lexicons*. New York: Routledge.

Council of Europe. 2001. *Common European Framework of Reference. Learning, Teaching and Assessment*. Cambridge: Cambridge University Press.

David, Annabelle. 2008. Vocabulary breadth in French L2 learners. *The Language Learning Journal* 36: 167–80. [CrossRef]

De Angelis, Gessica, Ulrike Jessner, and Marijana Kresic, eds. 2015. *Multilingualism: Crosslinguistic Influence in Language Learning*. London: Bloomsbury Publishing.

Ecke, Peter. 2015. Parasitic vocabulary acquisition, cross-linguistic influence, and lexical retrieval in multilinguals. *Bilingualism: Language and Cognition* 18: 145–62. [CrossRef]

Forsberg Lundell, Fanny, and Christina Lindqvist. 2014a. Vocabulary development in advanced L2 French—Do formulaic sequences and lexical richness develop at the same rate? In *The Acquisition of French as a Second Language: New Developmental Perspectives*. Edited by Christina Lindqvist and Camilla Bardel. Amsterdam: John Benjamins, pp. 75–94.

Forsberg Lundell, Fanny, and Christina Lindqvist. 2014b. Lexical aspects of very advanced L2 French. *Canadian Modern Language Review* 70: 28–49. [CrossRef]

Greidanus, Tine, Paul Bogaards, Elisabeth van der Linden, Lydius Nienhuis, and Tom de Wolf. 2004. The construction and validation of a deep word knowledge test for advanced learners of French. In *Language Learning & Language Teaching*. Edited by Paul Bogaards and Batia Laufer. Amsterdam: John Benjamins Publishing Company, vol. 10, pp. 191–208. [CrossRef]

Gyllstad, Henrik. 2009. Designing and evaluating tests of receptive collocation knowledge: COLLEX and COLLMATCH. In *Researching Collocations in Another Language*. Edited by Andy Barfield and Henrik Gyllstad. New York: Palgrave Macmillan, pp. 153–70. [CrossRef]

Jarvis, Scott, and Aneta Pavlenko, eds. 2008. *Crosslinguistic Influence in Language and Cognition*. New York: Routledge.

Laufer, Batia. 1997. What's in a word that makes it hard or easy? Intralexical factors affecting vocabulary acquisition. In *Vocabulary: Description, Acquisition, and Pedagogy*. Edited by Norbert Schmitt and Michael McCarthy. Cambridge: Cambridge University Press, pp. 140–55.

Lindqvist, Christina. 2010. La richesse lexicale dans la production orale de l'apprenant avancé de français. *La revue Canadienne des Langues Vivantes/The Canadian Modern Language Review* 66: 393–420. [CrossRef]

Lindqvist, Christina. 2012. Advanced learners' word choices in French L3 oral production. In *Third Language Acquisition in Adulthood*. Edited by Jennifer Cabrelli Amaro, Suzanne Flynn and Jason Rothman. Amsterdam: John Benjamins, pp. 255–80.

Lindqvist, Christina. 2015. Do learners transfer from the language they perceive as most closely related to the L3? The role of psychotypology for lexical and grammatical cross-linguistic influence in French L3. In *Multilingualism: Crosslinguistic influence in language learning*. Edited by Gessica De Angelis, Ulrike Jessner and Marijana Kresic. London and New York: Bloomsbury Publishing, pp. 231–251.

Lindqvist, Christina. 2018. Le développement de la taille du vocabulaire en français L2 chez les élèves suédophones. *Synergies Pays Scandinaves* 11–12: 151–61.

Lindqvist, Christina. 2019. Didactic challenges in the multilingual classroom. The case of French as a foreign language. In *Cross-Linguistic Influence: From Empirical Evidence to Classroom Practice*. Edited by María Juncal Gutierrez-Mangado, María Martínez Adrián and Francisco Gallardo Del Puerto. Cham: Springer International Publishing Switzerland, pp. 87–99.

Lindqvist, Christina. 2020. First and second language cognate effects in third language vocabulary size estimates. In *First Language Influences on Multilingual Lexicons*. Edited by Paul Booth and Jon Clenton. New York: Routledge, pp. 149–61.

Milton, James. 2008. French vocabulary breadth among learners in the British school and university system: Comparing knowledge over time. *Journal of French Language Studies* 18: 333–48. [CrossRef]

Nation, Paul. 2020. The Different Aspects of Vocabulary Knowledge. In *The Routledge Handbook of Vocabulary Studies*. Edited by Stuart Webb. London: Routledge, pp. 15–29.

Ovtcharov, Valentin, Tom Cobb, and Randall Halter. 2006. La richesse lexicale des productions orales: Mesure fiable du niveau de compétence langagière. *La Revue Canadienne des Langues Vivantes* 63: 107–25. [CrossRef]

Peters, Elke. 2020. Factors Affecting the Learning of Single-Word Items. In *The Routledge Handbook of Vocabulary Studies*. Edited by Stuart Webb. London: Routledge, pp. 125–42.

Qian, David. 2002. Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning* 52: 513–36. [CrossRef]

Read, John. 2000. *Assessing Vocabulary*. Cambridge: Cambridge University Press.

Read, John. 2004. Plumbing the depths: How should the construct of vocabulary knowledge be defined? In *Vocabulary in a Second Language*. Edited by Paul Bogaards and Batia Laufer. Amsterdam: John Benjamins, pp. 209–27.

Read, John. 2020. Key issues in measuring vocabulary knowledge. In *The Routledge Handbook of Vocabulary Studies*. Edited by Stuart Webb. London: Routledge, pp. 545–60.

Ringbom, Håkan. 2007. *Cross-Linguistic Similarity in Foreign Language Learning*. Clevedon: Multilingual Matters.

Sánchez, Laura. 2011. 'Luisa and Perdito's dog will the breakfast eat': Interlanguage transfer and the role of the second language factor. In *New Trends in Crosslinguistic Influence and Multilingualism Research*. Edited by Gessica De Angelis and Jean-Marc Dewaele. Clevedon: Multilingual Matters, pp. 86–104.

Schmitt, Norbert. 1998. Tracking the incremental acquisition of second language vocabulary: A longitudinal study. *Language Learning* 48: 281–317. [CrossRef]

Schmitt, Norbert. 2010. *Researching Vocabulary: A Vocabulary Research Manual*. Basingstoke: Palgrave McMillan.

Schoonen, Rob, and Marianne Verhallen. 2008. The assessment of deep word knowledge in young first and second language learners. *Language Testing* 25: 211–36. [CrossRef]

Skolverket. 2019. Kommentarmaterial Till kursplanen i Moderna Språk. Available online: https://www.skolverket.se/getFile?file=3866 (accessed on 3 February 2021).

Tidball, Françoise, and Jeanine Treffers-Daller. 2007. Exploring measures of vocabulary richness in semi-spontaneous French speech. In *Modelling and Assessing Vocabulary Knowledge*. Edited by Helmut Daller, James Milton and Jeanine Treffers-Daller. Cambridge: Cambridge University Press, pp. 133–49.

Webb, Stuart. 2005. Receptive and productive vocabulary learning: The effects of reading and writing on word knowledge. *Studies in Second Language Acquisition* 27: 33–52. [CrossRef]

Wesche, Marjorie, and T. Sima Paribakht. 1996. Assessing L2 vocabulary knowledge: Depth versus breadth. *Canadian Modern Language Review* 53: 13–40. [CrossRef]

Yanagisawa, Akifumi, and Stuart Webb. 2020. Measuring Depth of Vocabulary Knowledge. In *The Routledge Handbook of Vocabulary Studies*. Edited by Stuart Webb. London: Routledge, pp. 371–86.

Article

Collocational Development during a Stay Abroad

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Abstract: The purpose of the current study was to explore if and how additional-language learners may show changes in phraseological patterns over the course of a stay in a target-language environment. In particular, we focused on noun+adjective combinations produced by a group of additional-language speakers of French at three points in time, spanning 21 months and including an academic year in France. We extracted each combination from a longitudinal corpus and determined frequency counts and two strength-of-association measures (Mutual information [MI] score and Log Dice) for each combination. Separate analyses were conducted for frequency and the strength-of-association measures, revealing that phraseological patterns are significantly predicted by adjective position in the case of all three measures, and that MI scores showed significant change over time. We interpret the results in light of past research that has reported contradictory findings concerning change in phraseological patterns following an immersion experience.

Keywords: collocation; frequency; MI score; Log Dice; French; stay abroad

1. Introduction

The last several decades have seen a wealth of research investigating the impact of a stay abroad on participants' linguistic development (see Kinginger 2009; Llanes 2011, for overviews). Results overwhelmingly point to improved oral fluency (Huensch and Tracy-Ventura 2017), greater pragmatic appropriateness (Shively 2011), and development in the realm of sociolinguistic competence (Howard 2012) after a stay abroad. With respect to vocabulary, several scholars have reported gains in both the number of words known after a stay abroad (e.g., Briggs 2015; Ife et al. 2000) and in the quality of known words. For example, Crossley et al. (2010) demonstrated that stay-abroad learners of English produced more instances of polysemy after four months in the United States, whereas Crossley et al. (2016) showed, among other things, that the same learners used less concrete (and, therefore, more abstract) lexical items after a year abroad.

Certain researchers have also turned their attention to changes at the level of phraseology, meaning changes in the lexical combinations used by additional-language speakers. This interest in the development of phraseology over the course of a stay in a target-language environment has been motivated in part by the rise of usage-based approaches in the field of second language acquisition (SLA). According to such approaches, a large part of language learning involves detecting patterns in language input. If that input is not massive (or varied) enough, the learner may be at a disadvantage in extracting relevant usage patterns: "Language learning is essentially a sampling problem—the learner has to estimate the native norms from a sample of usage experience" (Ellis et al. 2015, p. 364). Ellis et al. go on to suggest that this sampling problem may create particular challenges for the acquisition of phraseological patterns because "[m]any of the forms required for idiomatic use are of relatively low frequency, and the learner thus needs a large input sample just to encounter them." Following this logic, in comparison with the language classroom, the

stay-abroad experience may provide more and better quality input for language learning in general and for phraseological learning in particular. However, the empirical research that has sought to determine how learners' phraseological competence may change as a result of an immersion experience shows a variety of contrasting patterns. In particular, whereas some studies point to development over the course of a stay abroad, with learners producing more word combinations that are typical of the target language at the end of their stay, others show no change or even a move away from phraseological patterns present in the ambient input.

In the current article, we examine if and how phraseological use develops over the course of a stay abroad. In particular, we focus on how the frequency and collocational strength of noun (N) + adjective (Adj) combinations produced by learners evolve over time. Four characteristics of this study allow us to contribute novel insights to this line of inquiry. First, we report on longitudinal data that span a period of 21 months collected at three different points in time: before the participants went abroad, at the end of an academic year spent in the target-language community, and 8 months after their return to their home country. This wide timespan allows us to both explore the impact of a longer stay abroad and investigate potential changes after the return home. Second, the 28 participants we analyzed are learners of additional-language French, making this study one of the few that has investigated a target language other than English. Third, whereas most previous research has focused on the Mutual Information (MI) score to quantify strength of collocational association, recent research by Gablasova et al. (2017) has highlighted the limits of this measure. For this reason, in addition to the MI score, we use a new measure of collocational strength, Log Dice. Finally, following recent calls for methodological change in the field of learner corpus research (see Gries 2015; Siyanova-Chanturia and Spina 2020), we opted to use mixed-effects linear regression analyses to analyze our written corpus data. Such analytic tools allow us to explore the impact that numerous independent variables may simultaneously exert on changes in N+Adj frequency and strength, all the while accommodating the variability that characterizes the population from which our participants are drawn.

2. Literature Review

2.1. Phraseological Development: Frequency and Collocational Strength

Research on phraseology is characterized by two approaches, which define phraseology in distinct ways (see Granger and Paquot 2008). On the one hand, researchers adopting what Granger and Paquot call "phraseological" approaches use linguistic criteria in order to identify (more or less semantically and/or syntactically) transparent multi-word units. On the other, scholars working within distributional approaches consider phraseology in a clearly bottom-up manner, generally using theory-independent measures, such as frequency, in order to identify patterns of co-occurrence in large corpora. In the current article, we adopt a distributional approach in our study of N+Adj combinations in a written corpus. As is the case in most distributional approaches, we will rely on both measures of frequency and collocational strength (also referred to as strength-of-association measures) in our analysis. We begin by detailing how these measures are applied and what caveats need to be kept in mind when using them. We end this sub-section by reviewing what the use of these measures has revealed about phraseological competence in an additional language.

Distributional approaches to phraseology are interested in identifying recurrent patterns of word use, which is accomplished using a variety of different measures. The first of these measures is raw frequency, where researchers generally establish a cut-off (e.g., 10 occurrences per 1 million words) and identify all (2-, 3-, 4-, etc.) word combinations that occur more often than the cut-off in question. Approaches relying solely on frequency often claim to be researching "lexical bundles", which focus on such highly frequent combinations as *of the*, *in the*, and *it is* (see Granger and Bestgen 2014, p. 235). Whereas high frequency may reflect phraseological status for a given speech community, researchers

have often turned to measures that tap into the strength of association[1] between words in order to complement a purely frequency-based account. Strength-of-association measures attempt to quantify the level of attraction between two words, thereby determining the exclusivity of the co-occurrence relationship. In other words, such measures reflect "the relationship between the number of times when [two words] are seen together as opposed to the number of times when they are seen separately in the corpus" (Gablasova et al. 2017, p. 160). Of the many different manners in which this relationship can be quantified, the MI score is undoubtedly the most commonly used in SLA research (Manning and Schütze 1999). However, as pointed out by numerous scholars, all co-occurrence measures have their limitations. In the case of the MI score, the combinations that receive high scores tend to involve low frequency words, which led Gablasova et al. to observe that "[h]ighlighting *rare exclusivity* is thus the main practical effect of the mathematical expression of the MI-score" (p. 164, our emphasis). These researchers go on to state that this equation thus "not only measure[s] collocational knowledge (preferences in word combinations), but also lexical knowledge of infrequent lexical items" (p. 172). Whereas most previous research has considered an MI score of 3 or greater as an indication of phraseological status, one important limitation of this measure is that it does not have a theoretical minimum or maximum score. The formula for calculating the MI score is given in (1).

$$\text{MI score} = \log_2 \left(\text{frequency word}_1 \text{word}_2 / (\text{frequency word}_1 \times \text{frequency word}_2) / \text{number of total words in corpus} \right) \quad (1)$$

Log Dice, the second strength-of-association measure that we used in the current project, has received little attention in the SLA literature. According to Gablasova et al. (2017, pp. 164–65), both Log Dice and the MI score detect exclusivity, but they argue that Log Dice has several advantages over the MI score: (a) it has a fixed maximum value of 14, (b) it does not overly favor highly infrequent items, which means that it detects exclusivity (and not uniquely rare exclusivity) and (c) the measure does not include expected frequency in its equation, making it more appropriate for very large corpora, like the one that was used in the current study. The equation for Log Dice, taken from Gablasova et al., is presented in (2):

$$\text{Log Dice} = 14 + \log_2 \left(2 \times \text{frequency word}_1 \text{word}_2 \right) / (\text{frequency word}_1 + \text{frequency word}_2) \quad (2)$$

Numerous studies have investigated how collocational frequency and strength in target-language input may influence how additional-language learners process, judge, and produce such combinations. Ellis et al. (2008) constitutes one widely cited psycholinguistic study. The researchers set out to explore how frequency and strength of association influenced processing patterns among native and additional-language speakers of English. In a series of three online experiments, the investigators explored how participants processed 108 academic formulas that varied according to their length (3, 4 or 5 words), their overall frequency, and their MI score. Taken together, the results pointed to the psychological validity of the phraseological sequences for both groups of speakers, insofar as both groups showed online sensitivity to different distributional profiles. However, if both groups showed significant sensitivity, their processing profiles revealed differences. Ellis et al. report an effect of overall frequency in additional-language processing and an effect of MI score on native processing, such that the additional-language speakers showed facilitated (i.e., faster) processing on high frequency combinations and native speakers showed evidence of facilitated processing on combinations with high MI scores. This finding was interpreted by Ellis et al. in the following way. They suggested that the effect of frequency was less strong in native processing because such speakers had already benefited from large amounts of exposure to their native language, meaning that the frequency differences among the target strings had essentially leveled out. Non-native speakers, however, had had much less exposure to the target language, meaning that this leveling out had not (yet)

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1   Certain researchers have also turned to measures of dispersion and directionality in their investigations of additional-language phraseology (see Ellis et al. 2016; Siyanova-Chanturia and Spina 2020).

occurred, and more frequent combinations continued to be processed more quickly than less frequent ones. As for the finding that higher MI scores were significant predictors of faster processing among native speakers, the authors suggested that "native speakers are attuned to these constructions as packaged wholes" (p. 391). This attunement then was presumably not (yet) in place among additional-language learners.

Since the publication of Ellis et al. (2008), numerous researchers interested in the acquisition of phraseological competence in an additional language have investigated whether the frequency and the collocational strength of a word combination may impact both how learners judge the acceptability of combinations (e.g., Edmonds and Gudmestad 2014) and which combinations are actually produced by learners. With respect to production, there is evidence pointing to the fact that learners tend to favor frequent combinations over those characterized by a high MI score. For example, in their 2009 study, Durrant and Schmitt compared academic assignments written by advanced learners and by English native speakers. Word pairs involving a noun and a premodifier (Adj+N or N+N) were extracted from all essays and the researchers then determined how often each pair occurred in a reference corpus. They also used the reference corpus to calculate the MI score for each combination under study. The results revealed that

> [a]dvanced non-native phraseology differs from that of natives not because it avoids formulaic language altogether but because it overuses high-frequency collocations and underuses the lower-frequency, but strongly-associated, pairs characterized by high mutual information scores. Since the latter sort appear (intuitively, and on the psycholinguistic evidence presented by Ellis et al.) to be highly salient for native speakers, their absence may be what creates the feeling that non-native writing lacks 'idiomaticity'. (Durrant and Schmitt 2009, p. 175)

This finding has subsequently been explored in several other studies, with Lorenz (1999), Forsberg (2010), and Granger and Bestgen (2014) providing corroborating evidence of a greater reliance on high-frequency combinations (as opposed to strongly associated ones) in additional-language production. Siyanova and Schmitt (2008), on the other hand, found no such difference in their comparison of Adj+N collocations produced by native speakers and Russian-speaking learners of English in written texts. As we will see in the following sub-section, the influence of frequency and collocational strength has also been addressed in research that has explored how learners' phraseological competence develops over the course of an immersion experience.

2.2. Phraseological Development during an Immersion Experience

According to Ellis et al. (2015, p. 364), research suggests that the learning context—and, in particular, foreign-language learning contexts versus immersion experiences—may significantly influence the learning of phraseological combinations. They explain this with reference to usage-based approaches to language and the (potential) differences in input available to learners in the two contexts: "Learning the usages that are normal or unmarked from those that are unnatural or marked requires a huge amount of immersion in the speech community." Spending time in a target-language environment presumably provides the learner with a larger and perhaps richer sample from which to extract phraseological patterns. Several researchers have set out to explore if and how phraseological use changes over the course of a stay abroad, and in this article, we limit our review to those studies that have used longitudinal data (Bestgen and Granger 2014; Crossley and Salsbury 2011; Li and Schmitt 2009, 2010; Siyanova-Chanturia 2015; Siyanova-Chanturia and Spina 2020; Yoon 2016).

The seven studies reviewed present a range of results in terms of change over time. Beginning with the factor of frequency, which was investigated by four studies, we note two distinct interpretations of this notion. In the case study reported by Li and Schmitt (2009), the researchers examined how frequently lexical phrases were produced in one learner's own writings, revealing a non-linear frequency pattern whereby the greatest density of lexical phrases was found in the second of nine writing assignments. The remaining three

studies sought to determine whether learners use word combinations that are frequent in the target language more often at the end of their stay abroad. Crossley and Salsbury (2011) reported on bigrams produced by six learners of English enrolled in an intensive language program, and they showed that between the first and fourth quarter of study, three of the six learners produced significantly more bigrams that were also attested in a native corpus. In Siyanova-Chanturia's single-authored and collaborative research, the participants under study were Chinese learners of Italian, who were completing an intensive language program in Italy. Both studies examined N+Adj combinations in written assignments completed by either beginner-level learners (Siyanova-Chanturia 2015) or by beginner-, elementary-, and intermediate-level learners (Siyanova-Chanturia and Spina 2020). In the first study, Siyanova-Chanturia found that the learners used more high frequency N+Adj combinations at the end of a 21-week language program than at the beginning. In the second study, which involved a much larger cohort of participants (*n* = 175), a different picture emerged. The frequency of N+Adj combinations was found overall to decrease between the beginning and the end of the intensive Italian class, although a significant interaction between learner proficiency and time nuanced this finding, revealing that the beginner-level learners were more likely to produce less frequent combinations after six months abroad. Overall, this research presents a divergent set of results: In some cases, no change was observed (half of Crossley and Salsbury's learners), in others, learners were seen to produce more frequent combinations at the end of a stay abroad (the other half of Crossley and Salsbury's learners; Siyanova-Chanturia), and in at least one example, learners produced less frequent combinations after their stay abroad (beginner learners in Siyanova-Chanturia and Spina).

Five longitudinal studies examined whether word combinations used by learners evolved in terms of their collocational strength over the course of a stay abroad (Bestgen and Granger 2014; Li and Schmitt 2010; Siyanova-Chanturia 2015; Siyanova-Chanturia and Spina 2020; Yoon 2016). In these studies, the researchers began by extracting certain word combinations from learners' written productions: all bigrams (Bestgen and Granger), N+Adj combinations (Li and Schmitt; Siyanova-Chanturia; Siyanova-Chanturia and Spina), or verb+N combinations (Yoon). The researchers then determined the strength of association for each combination (MI score)[2] using a reference corpus. In group-level analyses, no significant changes in MI scores were found by Bestgen and Granger, Yoon, and Li and Schmitt when comparing written productions from the beginning and the end of a period abroad. However, Li and Schmitt also examined the individual performance of their four Chinese learners of English and reported that one participant showed greater use of strongly associated N+Adj combinations at the end of the academic year abroad. Positive change was also reported by Siyanova-Chanturia, who found that a group of beginner-level learners produced significantly more strongly associated N+Adj combinations at the end of a 21-week intensive Italian course. In their larger project, however, Siyanova-Chanturia and Spina did not find that MI scores associated with N+Adj combinations underwent significant change over time. However, they did find an effect of proficiency, whereby the elementary- and intermediate-level learners had a greater likelihood of producing combinations that were less strongly associated (and, thus, had a lower MI score) than the beginner-level learners.

3. The Current Study

Past research has reported that additional-language users tend to hone in on high frequency phraseological patterns, whereas they "produce fewer of those collocations that are less frequent, even though these are strongly linked" (Schmitt et al. 2019, p. 5). Moreover, although Ellis et al. (2015) suggest that the stay-abroad experience may be particularly facilitative for the detection of (phraseological) patterns in the input, attempts to explore

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[2] Although two studies (Bestgen and Granger; Li and Schmitt) also reported on *t*-scores (another strength of association measure) for all combinations, this aspect of their analysis will not be reviewed here.

phraseological development as a result of a stay abroad have reported contradictory results. Against this backdrop, the purpose of the current study was to further explore if and how additional-language learners may show changes in phraseological patterns over the course of a stay in a target-language environment, as well as after the return to their home country. The following research questions were addressed: How do the frequency and collocational strength of N+Adj combinations used in written essays evolve both after an academic year spent in a target-language community and 8 months after the return home? What factors significantly predict frequency and collocational strength of N+Adj combinations?

3.1. Method

3.1.1. The LANGSNAP Corpus and Participants

Data analyzed for this project came from the LANGSNAP corpus.[3] This freely available corpus is the result of a longitudinal project carried out by a research team based at the University of Southampton (see Mitchell et al. 2017). The LANGSNAP team followed 29 additional-language learners of French enrolled in a French degree program in the United Kingdom between May 2011 and February 2013, before, during, and after an academic year they spent in France (a similar group of learners of Spanish was also followed). Over the course of this 21-month project, the participants met with a researcher on six occasions: once before their stay abroad, three times during the academic year in France, and twice after their return to the United Kingdom. For the current project, we have limited our focus to the first data-collection meeting, which we refer to as pre-stay, the fourth data-collection meeting, which took place at the end of the learners' stay abroad approximately one year after pre-stay data collection (i.e., in-stay), and finally the very last data-collection period, which involved meeting with participants approximately eight months after their return to the United Kingdom (i.e., post-stay). At each data-collection meeting, participants were asked to write an approximately 200-word argumentative essay in French. For this task, the same prompt was used at pre-stay and in-stay (see 3a), whereas a different prompt was used for post-stay (3b):

3.   a.   *Pensez-vous que les couples homosexuels ont le droit de se marier et d'adopter des enfants?*
'Do you think that homosexual couples have the right to get married and adopt children?'

b.   *Pensez-vous que, de manière à inciter les gens à manger sainement, on devrait taxer les boissons sucrées et les aliments gras?*
'Do you think that in order to encourage people to eat in a healthy manner, sugary beverages and fatty foods should be taxed?'

For this project, we analyzed the pre-stay, in-stay, and post-stay written productions from 28 of the 29 additional-language French speakers in the LANGSNAP database; participant 122 was excluded because she did not contribute data at in-stay. Three of the 28 learners were men, and 25 were women. All participants completed an elicited imitation (EI) test at the outset of the project, whose aim was to provide a measure of overall initial proficiency. For this test, participants were asked to repeat out loud 30 sentences in French, ranging in length from 7 to 19 syllables, which they heard pronounced by a French speaker. A score between 0 and 4 points on the basis of accuracy and completeness was awarded for each sentence (see Tracy-Ventura et al. 2014 for details). Out of a possible 120 points, these participants scored between 36 and 97 ($M = 62.57$, $SD = 18.21$). Participants were on average 20.04 years old ($SD = 0.88$, range 19-23) and reported having studied French between six and 20 years ($M = 10.64$, $SD = 3.07$). Although the majority of participants noted that English was their first language, the group also contains one first-language speaker of Finnish and one first-language speaker of Spanish. Additionally, three speakers reported having had some access to French during their childhood (one of these speakers reported that he had been learning French since birth, that is, for 20 years). Finally, participants provided information as to their principal occupation during their stay abroad: These

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[3]   https://slabank.talkbank.org/access/.

individuals were either teaching assistants in French schools (*n* = 14), exchange students enrolled at a French university (*n* = 8), or workplace interns (*n* = 6).

3.1.2. The Dataset under Study

The dataset contains 84 essays, for a total of 17,292 words. Each essay was read in order to identify all instances in which a learner used an adjective to modify a noun within the same noun phrase. In this study, we adopted a broad understanding of adjective, which means that we included many of what Durrant and Schmitt (2009, p. 166) called semi-determiners. For example, *même* 'same', *tout* 'all', *certain* 'certain', *tel* 'such', and both cardinal and ordinal numbers were included when they were used adjectivally. Examples from our dataset are provided in (4).

4.   *les mêmes droits* 'the same rights'
             tout le monde 'everyone'
             certains produits 'certain products'
             une telle mesure 'such a measure'
             deux parents 'two parents'
             vingtième siècle 'twentieth century'

Whereas most attributive adjectives in French follow the noun they modify, a subset of adjectives tends to precede the noun. These include the examples given in (4), but also adjectives such as *bon* 'good', *beau* 'beautiful', *grand* 'big', and so forth. Unlike Siyanova-Chanturia (2015) and Siyanova-Chanturia and Spina (2020), we did not limit our investigation to one of these two orders, and in what follows, we use the N+Adj notation to cover both. A total of 1094 N+Adj combinations were identified in this corpus. Two hundred and thirty-seven tokens were removed, as they corresponded to combinations contained in the essay prompts (see 3a-b: *couples homosexuels, boissons sucrées, aliments gras*). After removing these tokens, our final corpus contains 857 N+Adj occurrences, of which 506 showed the adjective in postnominal and 351 in prenominal position. Details are provided in Table 1.

Table 1. Details on the N+Adj dataset.

Data Collection	Total Words	N+Adj Occurrences	
		Tokens	**Types**
Pre-stay	5898	278	194
In-stay	5672	296	206
Post-stay	5722	284	204
TOTAL	17,292	857	531

3.1.3. The Reference Corpus and Data Coding

Once all N+Adj combinations had been extracted, each occurrence was coded with respect to its frequency and collocational strength (dependent variables in our analysis), as well as with respect to several independent factors that were hypothesized to impact the use of N+Adj combinations. Beginning with the dependent variables, a reference corpus was used to determine the frequency and collocational strength of each combination. The frTenTen12 WaCky corpus (Baroni et al. 2009) is a large (9,889,689,889 words), web-crawled corpus compiled in 2012, which corresponds to the period during which the LANGSNAP learners were in France. As such, the corpus should provide a relatively close approximation to written online input to which the participants may have been exposed. We searched the frTenTen12 WaCky corpus for the lemmatized frequency for each noun, adjective, and N+Adj combination. In conducting these searches, we always specified part of speech. For the N+Adj combination searches, two additional details are relevant. First, we searched the combination only in the order produced by the learner. Although certain adjectives may appear in both pre- and postnominal positions, a change in position generally involves a change in meaning (see Anderson 2008), meaning that the two orders cannot necessarily

be considered two versions of the same collocation. This decision means that the same adjective and noun used in different orders were treated as different combinations. In our dataset, there is just one example of this, involving the noun *opinion* "opinion" and the adjective *fort* "strong" (see 5).

5. a. *mais d'un autre côté il existe les gens avec les fortes opinions* (Participant 102, in-stay)
   'but on the other hand there exist people with strong opinions'
   b. *les autres livres pour avoir un opinion plus forte* (Participant 127, in-stay)
   'the other books to have an opinion stronger'

Second, given that adjectives can be separated from the noun they modify by other words (e.g., 5b), we did not require strict adjacency in this analysis. After exploring the results returned when search windows of various sizes were used, we opted for allowing up to one word to separate the noun from the adjective, as larger search windows returned a high proportion of inappropriate hits. Inspection of the search results revealed that even with this small search window, certain inappropriate combinations were returned. For this reason, we further restricted our searches such that the intervening element could not be a verb (when the order was noun followed by adjective) or a preposition (when the order was adjective followed by noun).

Lemmatized frequency counts from the frTenTen12 WaCky corpus were used to calculate two measures of collocational strength for each N+Adj combination. Whereas the MI score gives greater weight to rare lexical items and, for this reason, has been claimed to reflect rare exclusivity, Log Dice has been argued to reflect collocational exclusivity without favoring low frequency words. Table 2 provides the 10 highest scoring combinations according to the three dependent variables. This table shows that although approximately half of each list overlaps with one of the others, the remaining combinations (those highlighted in grey) are unique to one measure.

Table 2. Highest scoring N+Adj combinations.

	Frequency		MI Score		Log Dice	
	Combination	Frequency	Combination	Score	Combination	Score
1	*tout monde* "all world"	1,700,987	*société contemporaine* "contemporary society"	17.95	*dessin animé* "animated drawing"	11.17
2	*même temps* "same time"	902,134	*boisson gaseuse* "carbonated drink"	14.37	*être humain* "human being"	10.64
3	*tout autre* "all other"	750,705	*vingt-et-unième siècle* "twenty-first century"	13.02	*tout monde* "all world"	10.54
4	*deux choses* "two things"	635,420	*dessin animé* "animated drawing"	12.42	*parti socialiste* "socialist party"	10.53
5	*tout jour* "all day"	482,863	*vingtième siècle* "twentieth century"	11.53	*même temps* "same time"	10.51
6	*toute façon* "all manner"	482,402	*tout autre* "all other"	11.31	*court terme* "short term"	10.17
7	*autre part* "other part"	468,992	*famille monoparentale* "monoparental family"	10.94	*premier minister* "prime minister"	10.11
8	*tout deux* "all two"	427,727	*mission civilisatrice* "civilizing mission"	10.86	*chose importante* "important thing"	10.1
9	*dernières années* "last years"	410,868	*couple hétérosexuel* "heterosexual couple"	10.74	*boisson gaseuse* "carbonated drink"	10.00
10	*premier minister* "prime minister"	374,419	*parti socialiste* "socialist party"	10.73	*haut niveau* "high level"	9.85

Note. Combinations in grey are unique to one measure.

The 857 occurrences were also coded with respect to six independent variables. These factors are presented in (6). We analyzed participant as a random effect in the analysis; the other five variables were fixed effects.

6. a. Time: the occurrence was produced at pre-stay, in-stay, or post-stay
    b. Years of French study: the number of years that the speaker reported having studied French
    c. EI score: the EI score obtained by the speaker at pre-stay
    d. Placement: the main activity (teaching assistant, workplace intern, student) in which the speaker was engaged while abroad
    e. Adjective position: the adjective occurred either in prenominal or postnominal position
    f. Participant: which participant produced the occurrence

Exploring whether time significantly impacted the frequency and/or strength of association of N+Adj combinations produced by additional-language speakers revealed whether there were changes both after the stay abroad and after the learners' return home. The variables years of French study and EI score both constituted ways to gauge the proficiency of the participants. As shown by Siyanova-Chanturia and Spina (2020), proficiency level may significantly influence phraseological choices and development. We have also included the variable of placement in this analysis. As the three different occupations in which the learners were engaged may result in different opportunities and types of input, we wanted to determine whether this variable significantly impacted the frequency or collocational strength of N+Adj combinations produced. One linguistic variable was explored in this study. Unlike previous work on N+Adj combinations, we chose to examine both prenominal and postnominal adjectives. We thus included the variable of adjective position in our analysis in order to explore if and how collocational frequency and strength varied as a function of adjective position. Finally, the variable of participant was included as a random effect, in order to account for variability among the participants.

3.1.4. Data Analysis

We report on three linear mixed-effects models, one for lemmatized frequency, one for MI score, and one for Log Dice. To reduce skew in the frequency variable, the values were logarithmically transformed. For the three discrete independent variables investigated, one category of the variable was selected as a reference category. For example, for the variable time, the category pre-stay was the reference category, and our analysis looked for differences when comparing data produced at in-stay and at post-stay with data produced at pre-stay. The reference categories for the other two discrete variables were postnominal (adjective position) and teaching assistant (placement). EI score and years of French were continuous variables and thus had no reference category. Finally, participant was included in each model as a random effect in the form of a random intercept[4]. The three models were built using the package lme4 in RStudio (RStudio Team 2020). For each of the three models, the six independent factors presented in (6) were investigated. The creators of the lme4 package in R decided not to include *p* values for mixed-effects models because there is trouble estimating *p* values with these types of model structures. For this reason, we used a model comparison to arrive at the best-fit model, which means that we began with a model that contained only the random effect and then progressively added each independent factor. When the inclusion of a given factor significantly improved the fit of the model according to an ANOVA comparison, this factor was retained in the final model. Moreover, we checked for potential significant interactions between the factor time and any other significant factors, in order to examine how factors impacting N+Adj may have evolved over time. Finally, we assessed the fit of our models in two ways. First, marginal and conditional R^2 were computed and, second, we calculated the Bayesian Information Criterion for each model. Marginal R^2 for a model reflects how much of the overall variance is accounted for by the fixed effects, whereas conditional R^2 provides an indication of the amount of variance explained by the whole model (fixed and random effects) The Bayesian

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4   We explored the possibility of including both varying intercepts and varying slopes for the random effect, but because of convergence problems, only varying intercepts were included in our final models.

Information Criterion compares the log-likelihoods of the final model with a null model (containing only the dependent variable). The model obtaining the lower score shows the better fit, with a difference of at least 10 reflecting strong evidence in favor of that model. In what follows, we first report descriptive statistics for the three dependent variables at pre-stay, in-stay, and post-stay. We then present the three linear mixed effects models.

3.2. Results

Table 3 provides an overview of the frequency and collocational strength for the N+Adj combinations produced by the 28 learners of French at pre-stay, in-stay, and post-stay.

Table 3. Descriptive statistics.

Time	Frequency		MI Score		Log Dice	
	M (*SD*)	Range	*M* (*SD*)	Range	*M* (*SD*)	Range
Pre-stay	86,744 (299,814)	0−1,700,987	4.05 (3.16)	−3.57–17.95	4.71 (3.1)	−5.63–10.65
In-stay	121,660 (367,934)	0−1,700,987	4.39 (3.18)	−4.38–13.02	5.17 (3.07)	−5.63–10.65
Post-stay	99,993 (325,428)	0−1,700,987	4.83 (2.77)	−2.35–14.37	5.19 (3.28)	−4.67–11.17

The details concerning the final models for frequency, MI score, and Log Dice are presented in Table 4a,b, Table 5a,b, and Table 6a,b, respectively. These three models showed several similarities. First, neither of the two proficiency measures (years spent studying French or EI score) significantly predicted the frequency or the strength of association of N+Adj combinations used. The same can be said about the placement type while abroad, which was not found to be significant in any of the models. Furthermore, the inclusion of the factor time was found to significantly improve only one model: MI score. The details for this model are provided in Table 5a, where we see positive parameter estimates for both in-stay and post-stay essays. This indicates that, when compared to the combinations produced at pre-stay, this group of learners was more likely to make use of combinations that enjoyed a higher level of co-occurrence strength as indicated by the MI score at the end of their year abroad and/or after their return to the United Kingdom. Because this variable has three categories, the model results in Table 5a do not specify whether this significant change concerns only the pre- versus in-stay comparison, only the pre- versus post-stay comparison or both. To more precisely pinpoint where significant development occurred, we carried out three pairwise *t*-tests using the observations from each time point and the residual standard error associated with the fit model. Before conducting these tests, we checked to make sure that the scores at each time point were normally distributed. We moreover applied the Bonferroni correction to our significance level, which resulted in an alpha level of 0.0033 (0.01/3). The three comparisons revealed that MI scores did not significantly change between pre- and in-stay ($p = 0.1656$) or between in- and post-stay ($p = 0.0749$). A significant change was however revealed when comparing MI scores for combinations produced at pre- versus those produced as post-stay ($p = 0.0018$). Figure 1 provides a visualization of the influence of time on co-occurrence strength, by mapping out the MI scores for each N+Adj combination at pre-, in- and post-stay.

Table 4. (**a**) Summary of final model for frequency. (**b**) Random effects for participant in the frequency model.

		(a) Summary of Final Model for Frequency.		
Factor	**Estimate**	*SE*	*t* **Value**	**Confidence Intervals**
(Intercept)	3.121	0.051	61.78	[3.021, 3.222]
Adjective position				
Pre	1.338	0.076	17.462	[1.189, 1.487]

	(b) Random Effects for Participant in the Frequency Model.		
Participant	**Random Intercept**	**Participant**	**Random Intercept**
100	0.0061051	115	0.0047082
101	0.0192619	116	−0.0026766
102	−0.0345696	117	−0.0122701
104	0.0343793	118	−0.0041386
105	0.0318979	119	0.0156721
106	−0.003412712	120	−0.0011016
107	0.0146950	121	−0.0040971
108	0.0045674	123	0.0052533
109	−0.0297249	124	−0.0175949
110	−0.0213394	125	0.0112086
111	−0.0116328	126	−0.0211113
112	0.0049613	127	−0.0620854
113	0.0331438	128	0.0099693
114	−0.0281526	129	0.0498071

Table 5. (**a**) Summary of final model for MI score. (**b**) Random effects for participant in the MI score model.

		(a) Summary of Final Model for MI Score.		
Factor	**Estimate**	*SE*	*t* **Value**	**Confidence Intervals**
(Intercept)	4.5251	0.2045	22.13	[4.120, 4.926]
Time				
in-stay	0.3790	0.2492	1.521	[−0.111, 0.868]
post-stay	0.7433	0.2515	2.955	[0.250, 1.237]
Adjective position				
pre	−1.1936	0.2072	−5.760	[−1.601, −0.786]

	(b) Random Effects for Participant in the MI Score Model.		
Participant	**Random Intercept**	**Participant**	**Random Intercept**
100	0.0313194	115	−0.1334736
101	0.1522636	116	−0.1056354
102	−0.0303156	117	−0.0671213
104	0.1499458	118	−0.0290557
105	0.1185338	119	−0.0496603
106	0.0085123	120	−0.1435863
107	−0.1694525	121	−0.0488590
108	0.2631510	123	−0.0233297
109	−0.0674191	124	−0.0159254
110	−0.0154777	125	−0.0248067
111	0.1222740	126	−0.0924364
112	−0.0474726	127	−0.0673566
113	−0.0287572	128	0.0417407
114	−0.1482262	129	0.4206269

Table 6. (**a**) Summary of final model for Log Dice. (**b**) Random effects for participant in the Log Dice model.

(a) Summary of Final Model for Log Dice.				
Factor	**Estimate**	**SE**	**t Value**	**Confidence Intervals**
(Intercept)	4.2805	0.1391	30.774	[4.005, 4.553]
Adjective position pre	1.8191	0.2103	8.651	[1.405, 2.230]

(b) Random Effects for Participant in the Log Dice Model.			
Participant	**Random Intercept**	**Participant**	**Random Intercept**
100	0.0173211	115	−0.0123437
101	0.0582294	116	−0.0267567
102	−0.0776156	117	−0.0189802
104	0.1115772	118	0.0181944
105	0.0802951	119	0.0162897
106	−0.0061611	120	−0.0307761
107	−0.0166828	121	−0.0031515
108	0.0363880	123	0.0126978
109	−0.0404584	124	−0.0374099
110	−0.0533816	125	−0.0068696
111	−0.0220314	126	−0.0583006
112	−0.0174288	127	−0.0995125
113	0.0538182	128	0.0156374
114	−0.0453277	129	0.1527400
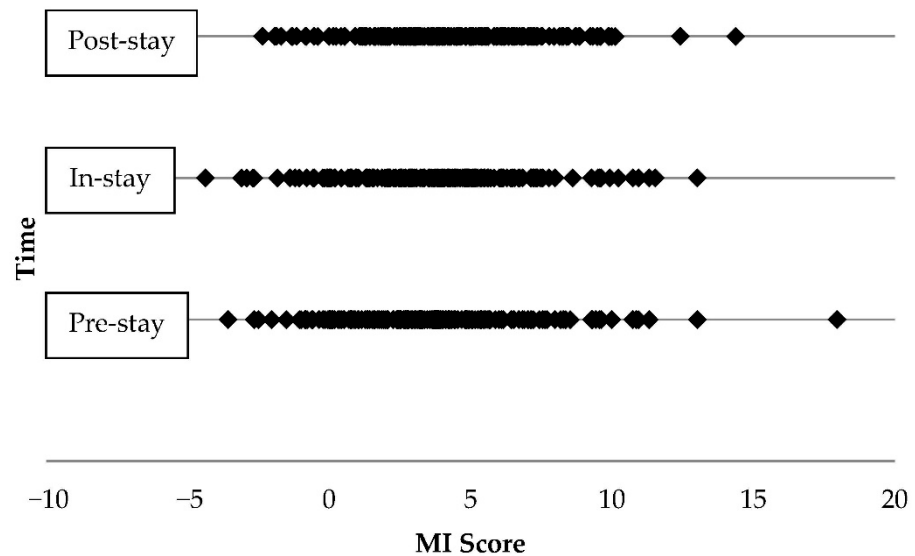
Figure 1. Fixed effect plot for the factor time (MI score model).

The final variable that we investigated was adjective position, and this variable proved to be significant in each of the three analyses, but with different patterns. In the case of frequency (Table 4a) and Log Dice (Table 6a), prenominal adjectives were significantly associated with higher frequency and with higher Log Dice scores, as is visible in the positive parameter estimates. The opposite was the case for the MI score analysis (Table 5a): Prenominal adjectives had a greater likelihood to result in combinations with lower MI scores than postnominal adjectives.

Finally, we explored the quality of our models. First, the calculation of R^2 for the three models revealed that the inclusion of the random effect for participant always improved the fit of the model (i.e., conditional R^2 is always greater than marginal R^2): overall frequency of N+Adj combinations (marginal R^2 = 0.266039, conditional R^2 = 0.269053), MI score (marginal R^2 = 0.047712, conditional R^2 = 0.056071), and Log Dice (marginal R^2 = 0.080451,

conditional R^2 = 0.082617). Second, the Bayesian Information Criterion indicated that all three final models offered a better fit of the data than the null model: frequency (final model: 2598.3, null model: 2899.1), MI score (final model: 4343.7, null model: 4360.5), and Log Dice (final model: 4355.6, null model: 4413.8).

4. Discussion

In commenting on research focused on language production, Arnon and Snider (2010, p. 67) observe that "findings show that language users are sensitive to detailed distributional information on many levels of linguistic analysis." Although their article is focused on production in one's native language, similar claims have been made for additional-language speakers (e.g., Ellis et al. 2015, 2016). However, the sensibility of additional-language speakers appears to differ in certain respects from that of native speakers. In particular, research has reported that additional-language learners show greater sensitivity to overall frequency in the input than to collocational strength. This sensitivity has been argued to be reflected in their overuse of high frequency word combinations, to the detriment of strongly associated ones. How a stay in a target-language community may reinforce or alter these tendencies has been explored by several researchers, who have tracked word combinations produced by learners over time to explore how they change (or not) in frequency and collocational strength. Overall, these studies have reported contradictory results. As we will see in what follows, the results from the current study contribute to these findings.

How do the frequency and collocational strength of N+Adj combinations used in written essays evolve both after an academic year spent in a target-language community and 8 months after the return home? Following Ellis et al. (2015), it is reasonable to expect that an immersion experience may facilitate phraseological learning, given that large amounts of input are necessary in order to encounter many phraseological patterns and that a stay abroad has the potential to provide such input. However, despite having spent an academic year in France, we noted little significant change with respect to the N+Adj combinations produced by the LANGSNAP learners. Beginning with overall frequency, the results from our linear mixed-effects analysis show that frequency was not significantly influenced by the factor time. Expressed differently, the 28 additional-language learners of French did not tend to use N+Adj combinations in the in-stay and the post-stay essays that were significantly more (or less) frequent than those used at pre-stay. While this result may reflect lack of sensitivity to overall frequency in the input, it may also be the case that these learners were already using high frequency N+Adj combinations and that this tendency was simply maintained during the stay abroad. Indeed, what little past research has shown change in frequency of phraseological units during a stay abroad has generally focused on lower-level learners (i.e., Siyanova-Chanturia 2015).

Turning to collocational strength, the two measures used—MI score and Log Dice—returned different results with respect to change over time, meaning that evolution with respect to rare exclusivity (as detected by MI score) and by general exclusivity (reflected in Log Dice) were distinct in this dataset. Beginning with MI score, time was a significant and positive predictor, reflecting the fact that the N+Adj combinations used at post-stay were more likely to have higher collocational association scores than those used at pre-stay. Among previous research, only Siyanova-Chanturia (2015) reported significant changes in collocational strength at the group level, the other four studies having reported that MI scores remained static between the beginning and end of a stay abroad (Bestgen and Granger 2014; Li and Schmitt 2010; Siyanova-Chanturia and Spina 2020; Yoon 2016). Our own results reinforce this general trend, insofar as we found no significant change in MI score between N+Adj combinations produced before and at the end of a stay abroad. Interestingly, however, our analysis reveals change when the MI scores for combinations produced at pre-stay were compared with those produced 8 months after the participants' return to the United Kingdom. In other words, although no change was detected immediately at the end of the stay abroad, it may be the case that the stay in France initiated the

significant development that is visible after the participants' return to their home university. Little research currently exists that has included data that aim to examine evolution after the immersion experience. In the case of the LANGSNAP corpus, the final data-collection meeting took place about eight months after the learners' return to the United Kingdom, allowing researchers to investigate change or maintenance after a return home (see, for example, Huensch and Tracy-Ventura 2017, for an analysis of change in fluency in the Spanish portion of this corpus during and after the stay abroad). Importantly, the LANGSNAP research team has collected additional data three years after the end of the original project from a subset of the original participants.[5] Exploring how phraseological patterns may have changed in the years that followed the stay abroad offers an exciting avenue for future research.

The significant finding with respect to MI score must be nuanced, however, by the results from the Log Dice analysis. Indeed, although both Log Dice and MI score are strength-of-association measures, for the Log Dice analysis, time was not a significant predictor. From a methodological point of view, the results from the two collocational strength measures provide support for the observations made by Gablasova et al. (2017) concerning the fact that the two measures reveal distinct information about phraseological patterns, because each favors different types of associations. With respect to the LANGSNAP data, the fact that change was observed in the MI score analysis but not the Log Dice analysis suggests that the observed evolution concerned items that enjoy rare exclusivity (i.e., word combinations involving infrequent words), as opposed to greater use of strongly associated combinations involving words from across the frequency spectrum. In combination, the MI score and Log Dice analyses thus allow us to more specifically pinpoint the types of combinations that underwent change. Moreover, when considered with respect to the results from the overall frequency analysis, we note that the LANGSNAP learners seem to present results that are distinct from what has been reported for additional-language learners: Instead of showing sensitivity to overall frequency, they show sensitivity (in the form of development) to strongly associated collocations. It may thus be the case that these learners have reached a point in their acquisition where frequency effects are not visible, at least with respect to the production of N+Adj combinations.

The second research question that guided this project focused on the factors that significantly influence the use of more or less frequent and more or less strongly associated N+Adj combinations. As the factor of time has already been addressed, we turn now to the four remaining independent variables that were explored. Of these, three were not significant in any of the analyses: EI score, years spent studying French, and placement type. The first two variables—EI score and years spent studying French—were both intended to reflect general proficiency in additional-language French. Given recent research by Siyanova-Chanturia and Spina (2020), in which proficiency level significantly influenced collocation use in additional-language Italian, we sought to explore whether one or both of these variables may influence N+Adj combination use in this dataset. The fact that neither was significant may indicate that the role of overall proficiency in collocation use is stronger among lower-level learners, like those who participated in Siyanova-Chanturia and Spina's study. As for placement type, our results detected no difference with respect to this variable. This finding contributes to evidence reported by Mitchell et al. (2015) on the oral development by these same learners. These researchers analyzed changes in EI score and in lexical diversity over time and found no significant impact of placement type. On the basis of their findings, they observed that "every placement type offers in principle a rich exposure to French and interactional opportunities" (p. 133). In the context of the current study, it thus appears that although teaching assistants, interns, and students may receive different kinds of input, these differences did not influence the frequency or collocational strength of N+Adj combinations that they produced.

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5   French: https://slabank.talkbank.org/access/French/LANGSNAP3.html; Spanish: https://slabank.talkbank.org/access/Spanish/LANGSNAP3.html.

The final variable that was investigated explored the importance of adjective position (prenominal vs. postnominal). This variable was found to be significant in all three analyses, indicating that adjective position influenced both the frequency and collocational strength of N+Adj combinations in this dataset, although two contrasting patterns were observed. More specifically, when the adjective preceded the noun, there was a greater likelihood that the resulting N+Adj combination would enjoy both higher frequency and a higher Log Dice score, whereas its MI score was more likely to be low. These different patterns held over time, given that adjective position was not found to interact with time in any of the analyses. An examination of the dataset reveals that the findings for adjective position reflect at least in part the difference in the type of adjectives that were used in these two positions. In particular, we note that the adjectives found in prenominal position tended to be more frequent (on average, they appear in the frTenTen12 WaCky corpus 4,752,332 times, or 481 times per 1 million words) than the set of adjectives that appeared in postnominal position (here, the average frequency is 662,642, or 67 occurrences per 1 million words). This difference helps explain why overall frequency and Log Dice are higher for combinations involving prenominal adjectives (which, on average, have higher overall frequency), whereas MI score—which favors rare exclusivity—tends to be higher for combinations including the generally less frequent postnominal adjectives. Whereas previous research, such as that of Granger and Bestgen (2014), has reported different collocational strength patterns as a function of type of word combination examined (e.g., N+N, Adj+N, adverb+Adj), the current investigation extends that finding by showing that syntactic patterns within a single category (in this case, word-order differences for N+Adj combinations) may also influence collocational profiles. Thus, when analyzing phraseological categories with syntactic variation, it is important to not assume that this variation has no impact on collocational patterns. In order to be able to account for the potential influence of such variation while also exploring other factors, researchers would do well to follow Gries' (2015) advice and consider the use of multivariate analytical approaches. As we have shown in the current analysis, multivariate analyses provide the researcher with a way to explore the influence of multiple factors simultaneously.

5. Conclusions

In this paper, we explored if and how one part of the phraseological spectrum changes over time, including an academic year spent in France. Documenting the influence of a stay abroad has attracted attention from numerous researchers, and the current analysis offers additional insight into changes (but also into stasis) as regards N+Adj combinations used in written essays. Whereas our results revealed no changes in frequency or in one of the collocational strength measures, we did observe significant change in the use of combinations receiving a high MI score. When the results from the Log Dice and MI score analyses are taken together, they allow us to affirm that the stay abroad ultimately led to the increased use of N+Adj combinations that involved less frequent words, as seen in the post-stay data. Although the findings provide another example of the learning trajectory during a stay abroad, when interpreted against the backdrop of past research, several avenues for future research remain open. These include, among others, exploring the role of length of stay and proficiency in the development of phraseological competence, as well as the potential variation in developmental paths as a function of category of phraseological unit (e.g., verb+N vs. N+Adj). Moreover, one of the main findings from research on phraseological competence in an additional language suggests a clear preference for high-frequency collocations over strongly associated ones. The results from the current study are unusual insofar as we find evidence of change in MI score, but not in overall frequency (or Log Dice), suggesting particular sensitivity to N+Adj combinations enjoying rare exclusivity on the part of the LANGSNAP learners. Presuming that this finding can be replicated in future research, this result may indicate that the learners who contributed to the LANGSNAP project were no longer sensitive to frequency effects for N+Adj combinations.

References

Anderson, Bruce. 2008. Forms of Evidence and Grammatical Development in the Acquisition of Adjective Position in L2 French. *Studies in Second Language Acquisition* 30: 1–29. [CrossRef]

Arnon, Inbal, and Neal Snider. 2010. More than Words: Frequency Effects for Multi-word Phrases. *Journal of Memory and Language* 62: 67–82. [CrossRef]

Baroni, Marco, Silvia Bernardini, Adriano Ferraresi, and Eros Zanchetta. 2009. The WaCky Wide Web: A Collection of Very Large Linguistically Processed Web-crawled Corpora. *Language Resources and Evaluation* 43: 209–26. [CrossRef]

Bestgen, Yves, and Sylviane Granger. 2014. Quantifying the Development of Phraseological Competence in L2 English Writing: An Automated Approach. *Journal of Second Language Writing* 26: 28–41. [CrossRef]

Briggs, Jessica. G. 2015. Out-of-class Language Contact and Vocabulary Gain in a Study Abroad Context. *System* 53: 129–40. [CrossRef]

Crossley, Scott, and Thomas L. Salsbury. 2011. The Development of Lexical Bundle Accuracy and Production in English Second Language Speakers. *International Review of Applied Linguistics and Language Teaching* 49: 1–26. [CrossRef]

Crossley, Scott, Thomas Salsbury, and Danielle McNamara. 2010. The Development of Polysemy and Frequency Use in English Second Language Speakers. *Language Learning* 60: 573–605. [CrossRef]

Crossley, Scott, Kristopher Kyle, and Thomas Salsbury. 2016. A Usage-based Investigation of L2 Lexical Acquisition: The Role of Input and Output. *The Modern Language Journal* 100: 702–15. [CrossRef]

Durrant, Philip, and Norbert Schmitt. 2009. To What Extent do Native and Non-native Writers Make Use of Collocations? *International Review of Applied Linguistics in Language Teaching* 47: 157–77. [CrossRef]

Edmonds, Amanda, and Aarnes Gudmestad. 2014. Your Participation is *Greatly/Highly* Appreciated: Amplifier Collocations in L2 English. *Canadian Modern Language Review* 70: 76–102. [CrossRef]

Ellis, Nick C., Rita Simpson-Vlach, and Carson Maynard. 2008. Formulaic Language in Native and Second Language Speakers: Psycholinguistics, Corpus Linguistics, and TESOL. *TESOL Quarterly* 42: 375–96. [CrossRef]

Ellis, Nick C., Rita Simpson-Vlach, Ute Römer, Matthew B. O'Donnell, and Stefanie Wulff. 2015. Learner Corpora and Formulaic Language in SLA. In *Cambridge Handbook of Learner Corpus Research*. Edited by Sylviane Granger, Gaëtanelle Gilquin and Fanny Meunier. Cambridge: Cambridge University Press, pp. 357–78.

Ellis, Nick C., Ute Römer, and Matthew B. O'Donnell. 2016. *Usage-based Approaches to Language Acquisition and Processing: Cognitive and Corpus Investigations of Construction Grammar*. New York: Wiley.

Forsberg, Fanny. 2010. Using Conventional Expressions in French. *International Review of Applied Linguistics in Language Teaching* 48: 25–51. [CrossRef]

Gablasova, Dana, Vaclav Brezina, and Tony McEnery. 2017. Collocations in Corpus-based Language Learning Research: Identifying, Comparing, and Interpreting the Evidence. *Language Learning* 67: 155–79. [CrossRef]

Granger, Sylviane, and Yves Bestgen. 2014. The Use of Collocations by Intermediate vs. Advanced Non-native Writers: A Bigram-based Study. *International Review of Applied Linguistics and Language Teaching* 52: 229–52. [CrossRef]

Granger, Sylviane, and Magali Paquot. 2008. Disentangling the Phraseological Web. In *Phraseology: An Interdisciplinary Perspective*. Edited by Sylviane Granger and Fanny Meunier. Amsterdam: Benjamins, pp. 27–50.

Gries, Stefan Th. 2015. Statistics for Learner Corpus Research. In *The Cambridge Handbook of Learner Corpus Research*. Edited by Sylviane Granger, Gatanaëlle Gilquin and Fanny Meunier. Cambridge: Cambridge University Press, pp. 159–81.

Howard, Martin. 2012. The Advanced Learner's Sociolinguistic Profile. On Issues of Individual Differences, L2 Exposure Conditions and Type of Sociolinguistic Variable. *The Modern Language Journal* 96: 20–33. [CrossRef]

Huensch, Amanda, and Nicole Tracy-Ventura. 2017. L2 Utterance Fluency Development Before, During, and After Residence Abroad: A Multidimensional Investigation. *The Modern Language Journal* 101: 275–93. [CrossRef]

Ife, Anne, Gemma Vives Boix, and Paul Meara. 2000. The Impact of Study Abroad on the Vocabulary Development of Different Proficiency Groups. *Spanish Applied Linguistics* 4: 55–84.

Kinginger, Celeste. 2009. *Language Learning and Study Abroad: A Critical Reading of Research*. New York: Palgrave Macmillan.

Li, Jie, and Norbert Schmitt. 2009. The Acquisition of Lexical Phrases in Academic Writing: A Longitudinal Case Study. *Journal of Second Language Writing* 18: 85–102. [CrossRef]

Li, Jie, and Norbert Schmitt. 2010. The Development of Collocation Use in Academic Texts by Advanced L2 Learners: A Multiple Case Study Approach. In *Perspectives on Formulaic Language: Acquisition and Communication*. Edited by David Wood. New York: Bloomsbury, pp. 22–46.

Llanes, Àngels. 2011. The Many Faces of Study Abroad: An Update on the Research on L2 Gains Emerged During a Study Abroad Experience. *International Journal of Multilingualism* 8: 189–215. [CrossRef]

Lorenz, Gunter. 1999. *Adjective Intensification—Learners versus Native Speakers*. Amsterdam: Rodopi.

Manning, Christopher D., and Hinrich Schütze. 1999. *Foundations of Statistical Natural Language Processing*. Cambridge: MIT Press.

Mitchell, Rosamond, Kevin McManus, and Nicole Tracy-Ventura. 2015. Placement Type and Language Learning during Residence Abroad. In *Social Interaction, Identity and Language Learning During Residence Abroad*. Edited by Rosamond Mitchell, Nicole Tracy-Ventura and Kevin McManus. Eurosla Monographs Series; Amsterdam: Eurosla Association.

Mitchell, Rosamond, Nicole Tracy-Ventura, and Kevin McManus. 2017. *Anglophone Students Abroad: Identity, Social Relationships, and Language Learning*. London: Routledge.

RStudio Team. 2020. *RStudio: Integrated Development for R. RStudio*. Boston: PBC, Available online: http://www.rstudio.com/ (accessed on 21 September 2020).

Schmitt, Norbert, Suhad Sonbul, Laura Vilkaité-Lozdiené, and Marijana Macis. 2019. Formulaic Language and Collocation. In *The Encyclopedia of Applied Linguistics*. Edited by Carol A. Chapelle. New York: John Wiley and Sons, pp. 1–10.

Shively, Rachel L. 2011. L2 Pragmatic Development in Study Abroad: A Longitudinal Study of Spanish Service Encounters. *Journal of Pragmatics* 43: 1818–35. [CrossRef]

Siyanova, Anna, and Norbert Schmitt. 2008. L2 Learner Production and Processing of Collocation: A Multi-study Perspective. *The Canadian Modern Language Review* 64: 429–58. [CrossRef]

Siyanova-Chanturia, Anna. 2015. Collocation in Beginner Learner Writing: A Longitudinal Study. *System* 53: 148–60. [CrossRef]

Siyanova-Chanturia, Anna, and Stefania Spina. 2020. Multi-word Expressions in Second Language Writing: A Large-scale Longitudinal Learner Corpus Study. *Language Learning* 70: 420–63. [CrossRef]

Tracy-Ventura, Nicole, Kevin McManus, John M. Norris, and Lourdes Ortega. 2014. 'Repeat as Much as you Can': Elicited Imitation as a Measure of Oral Proficiency in L2 French. In *Measuring L2 Proficiency: Perspectives from SLA*. Edited by Pascale Leclercq, Amanda Edmonds and Heather Hilton. Clevedon: Multilingual Matters, pp. 143–66.

Yoon, Hyung-Jo. 2016. Association Strength of Verb-noun Combinations in Experiences NS and Less Experiences NNS Writing: Longitudinal and Cross-sectional Findings. *Journal of Second Language Writing* 34: 42–57. [CrossRef]

Actual and Self-Perceived Linguistic Proficiency Gains in French during Study Abroad

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Abstract: The present study focuses on 33 British and Irish students, including non-language specialists and language specialists, who spent their study abroad (SA) period in Francophone countries. Their proficiency in French ranged from lower independent (B1) to advanced level (C2). The analysis of quantitative data collected at the start, in the middle, and at the end of the SA period through an online questionnaire showed that both actual proficiency and self-reported proficiency increased significantly after SA. A closer look at self-reported proficiency in the four skills showed a significant linear increase in speaking and listening, while scores for reading and writing only increased significantly after the mid-way point in the SA period. The same pattern emerged for grammar and vocabulary. Only pronunciation showed no significant change over the SA period. Linking the amount of change in actual proficiency between the start and the end of the SA period to participants' descriptions of their experience revealed that progress was not always linked to overall positivity of the experience but rather to the development of a strong local French social network. Actual and self-reported proficiency scores were significantly correlated. Participants with lower initial actual proficiency were found to have made the biggest gain during SA.

Keywords: study abroad; proficiency; self-perceived proficiency; linguistic gains

1. Introduction

As the world has become more mobile and interconnected, the phenomenon of studying or working abroad during higher education has become increasingly common. Students have enthusiastically taken up the opportunity to go to another country: in the US, the Department of State reported that 325,339 US students studied abroad in the year 2015/16, constituting around 10% of enrolled students in the US[1]. In Europe, the European Union's Erasmus+ programme has made study abroad (SA) increasingly accessible across the EU, which has led to a significant increase in participation. At its conception in 1987, 3244 students participated. In 2017/18, this figure stood at 325,000 students (European Commission 2018, p. 34). Around half of UK university students who studied abroad did so through Erasmus (https://www.bbc.co.uk/news/education-47293927).

Not all Study Abroad (SA) has a foreign language element, but the present study will focus on SA where improving linguistic proficiency in a target language is the primary aim. The term "study abroad" is used throughout as an umbrella term for all activities undertaken by students while abroad, including internships and teaching assistantships.

While SA is commonly perceived to be a panacea for language students (Watzinger-Tharp 2014), research findings present a more nuanced picture. Research on SA in the context of second language acquisition began in the 1960s. Its initial focus was linguistic gain (Coleman 2009). Evidence of gain turned out to be less clear-cut than expected, with some studies reporting positive effects (Howard 2005; Segalowitz and Freed 2004;

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1   https://studyabroad.state.gov/value-study-abroad/study-abroad-data.

Regan et al. 2009), while others found limited or no effect (DeKeyser 1991; Isabelli-García 2006) compared to classroom-based language learning in the home institution. This led Collentine and Freed (2004) to conclude that there is "no evidence that one context of learning is superior to another for all students, at all levels of language learning, and for all language skills" (Collentine and Freed 2004, p. 164). Their conclusion reflects a shift in approach away from viewing SA as a single "monolithic construct" (Devlin 2013, p. 200), where linguistic progress is expected for all participants across the four skills and in all aspects of language (ranging from phonology to pragmatics), simply by virtue of being in a SA context.

One of the ongoing debates in SA research is the optimal timing for students to complete their SA. Do SA students need to have reached some proficiency threshold in order to benefit maximally from their SA (DeKeyser 2014; Hessel 2017; Lafford and Collentine 2006)?

Another question relates to the rate of development of different aspects of language. There is growing evidence that there is an imbalance between how phonology, morphology, syntax, lexis, and pragmatics are affected by SA (Jensen and Howard 2014; Mitchell et al. 2017; Serrano et al. 2012).

One surprising finding in SA studies is the large amount of individual variation in proficiency outcomes in SA (Gass 2017; Jensen and Howard 2014; Kinginger 2008, 2011). Possible reasons are complex interactions between various learner-internal and learner-external independent variables, and pure chance. For example, Kinginger (2008) study of American students studying abroad in France took place at the time of the Iraq war, which was strongly opposed by the French and which forced the students who were often apolitical to defend the United States' geopolitical decisions. It led several students to avoid interactions with French people, restricting their opportunities to use French beyond mere service encounters. This was detrimental to their linguistic gains because, as Briggs Baffoe-Djan and Zhou (2021) point out, linguistic gain during SA depends as much on quantity as quality of language contact.

The current study responds to an ongoing need to measure the effectiveness of SA, both in terms of change in self-perceived and actual target language proficiency. It also answers the call issued by Mitchell et al. (2017) for more studies on target languages other than English, with French, for example, being "comparatively little studied" (Mitchell et al. 2017, p. 73).

The study looks at a relatively homogeneous group of 33 Anglophone students studying French as part of their degree at a British or Irish university, who filled out three successive online questionnaires in 2018–2019, at the start, in the middle, and at the end of their SA in a Francophone country.

2. Literature Review

2.1. Early SA Research

The investigation of the role of SA in second language acquisition began by seeking to understand "the overall efficacy" of SA as a language-learning context (Collentine 2009, p. 219). The first study to do so was Carroll (1967) study of 2782 American language students majoring in French, German, Italian, Russian, and Spanish at 203 universities in the USA. He found that students with a lower initial proficiency level made greater proficiency gains than students with higher initial proficiency and that students' spending time in the target-language-speaking country, compared to staying in the USA, was one of the best predictors of target-language proficiency gains. Further studies also found that SA was linked to proficiency gains: Brecht et al. (1993, 1995) conducted a longitudinal study of 658 American students in Russia, where they investigated a series of groups over several years at a number of Russian-language institutions. However, in contrast with Carroll, they found that higher scores on pre-departure reading and grammar tests predicted greater proficiency gains in most skills, such as speaking, listening, and reading. This led them to suggest that there might be a proficiency threshold that learners must reach to benefit

most from SA. It was also reported that individual differences, such as reading aptitude, predicted proficiency gains[2].

Barbara Freed, in her seminal 1995 (Freed 1995) overview of the field, underlined the need for more investigation of issues such as individual differences and for research to be conducted with more methodological rigour. This led to the expansion of the field of SA and the adoption of a wide variety of theoretical and methodological approaches, such as a new emphasis on gathering more qualitative and ethnographic data about participants (Dewey et al. 2013; Kinginger 2008, 2011; Moratinos-Johnston et al. 2021).

2.2. SA and Language Proficiency

Segalowitz and Freed (2004) study of 40 native English learners of Spanish in a SA versus at home (AH) context for one semester found that the SA cohort made significant gains in global oral proficiency, as measured by an Oral Proficiency Interview (OPI), whereas the AH cohort did not. They also noted "the importance of the dynamic interactions that exist among oral, cognitive, and contextual variables" (Segalowitz and Freed 2004, p. 173), which may help to explain why there is so much individual variation in learning outcomes.

SA has varying effects on different dimensions of language oral and written proficiency (Edmonds and Gudmestad 2018; Milton and Meara 1995). Pérez-Vidal and Juan-Garau (2011) found that SA led to improved use of formulas in oral performance and increased lexical complexity in writing. Moreover, the rate of gains varies across domains. Serrano et al. (2012) study of the oral proficiency of 24 Spanish students before, during, and after their SA in the UK found that significant gains were made in fluency and lexical diversity early on and that significant accuracy gains also emerged at the end of the year.

Fewer studies have looked at reading and written proficiency, and their results have been more variable (Pérez-Vidal and Barquin 2014; Pérez-Vidal and Juan-Garau 2009). Some studies did not find that SA had a positive effect on reading and writing. For example, DeKeyser (1990, 1991) found that the AH students in fact performed as well or better over the six-month period compared to the SA group on a grammar test, possibly because the onset level of proficiency in these students was below the "functional" level (DeKeyser 2014).

Kinginger (2008) measured the reading, listening, and grammatical comprehension of 23 American students before and after spending a year abroad in France. She found that 13 participants did not make any significant progress, with seven of these students actually scoring lower on reading proficiency after the SA period. However, other studies do report improvements in reading and writing performance after SA. In a series of studies of 18 Irish Anglophone students of French, Howard (2005) found that French past tense usage in the SA group was significantly more accurate than the AH group, producing the correct form in more than 90% of cases, compared to 75–84% of cases in the AH group. Similarly, Juan-Garau et al. (2014) conducted a study of 57 trilingual (Spanish–Catalan–English) university students as part of the Study Abroad and Language Acquisition (SALA) Project and found that students' gains in general written proficiency were significantly greater over the SA period compared with the period at university. Overall, results do generally point to a positive effect of SA on written fluency and syntactic and lexical complexity.

Mitchell et al. (2017) study of 56 British students' development in terms of general proficiency, fluency, accuracy, and complexity after completing their SA in Spanish-speaking countries (*n* = 27) and in France (*n* = 29) revealed striking differences between dimensions in oral and written speech (the LANGSNAP project). Lexical complexity and oral fluency increased fastest between Time 1 and Time 2, rising more slowly until Time 3. The authors were surprised to find very little improvement in accuracy after SA.

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2   This issue has remained central in SA research, with DeKeyser (2007) referring to the need of a "functional level" and Collentine (2009) proposing the idea of a "threshold" level.

2.3. SA and Individual Differences

In addition to indications that SA affects various aspects of linguistic knowledge differently, it is clear that there is also immense individual variation in terms of language gains (Grey et al. 2015). It has been suggested that "study abroad intensifies individual differences in achievement" (Kinginger 2011, p. 58) because these differences affect the amount of input and interaction that a learner will have and will also affect the way in which input is processed (Sanz 2014). Personality plays a role, as highlighted in Arvidsson et al. (2018), as well as the arbitrary nature of the SA experience (Klapper and Rees 2012).

One crucial individual factor is students' proficiency level before they embark on SA. Lafford and Collentine (2006) suggest that initial proficiency may affect gains made abroad; having target language proficiency above a certain threshold may be necessary for measurable gains to be made. Intermediate learners, such as those in DeKeyser (1991) and Collentine (2004), may not yet have attained a level where they could move beyond basic communication. They may not yet have had a chance to automatize their existing declarative knowledge (DeKeyser 2014) and may thus have struggled in fast-flowing exchanges, especially if these happened in stressful circumstances with a lot of background noise, for example. Advanced learners have generally been found to make significant proficiency gains while abroad. Edmonds and Gudmestad (2018) looked at 20 advanced learners of French and assessed their use of correct gender marking over a 21-month period, which included a year abroad. They found a significant improvement between pre-stay and in-stay testing and concluded that the learners' high global and grammatical-gender proficiency pre-departure was key in allowing them to progress rapidly during their SA. Similarly, Leonard and Shea (2017) focused on 39 English L1 users learning Spanish in Argentina over a 3-month period. They found that those with higher levels of linguistic knowledge and faster processing speed in Spanish before departure made the greatest gains in accuracy and syntactic and lexical complexity during SA.

In contrast, Rees and Klapper (2007) reported of the 57 British foreign language students of German who spent their SA in Germany that those with higher initial proficiency level made fewer gains compared to those with lower initial proficiency levels. Similarly, Hessel (2017) longitudinal, mixed-methods study of 143 German university students who spent a semester abroad as part of the ERASMUS programme revealed that initial L2 proficiency was the strongest predictor of proficiency gain. Those with lower initial proficiency made greater gains. Considering the contradictory results of Edmonds and Gudmestad (2018) on the one hand and Rees and Klapper (2007) and Hessel (2017) on the other hand, the question about which learners may benefit the most from SA remains to be investigated.

There are also still a number of areas in SA research that need further investigation: numerous studies have investigated English L2 learners, but the work on French L2 development remains relatively limited (Mitchell et al. 2017). Further study of L2 skills other than oral fluency is also needed (Grey et al. 2015). A number of both dependent and independent variables also deserve further study, such as the effect of SA on advanced L2 learners and the development of both actual and self-perceived proficiency in a number of domains. The present study will attempt to contribute to our understanding of the complex and dynamic development of these variables in a SA context.

The following research questions were formulated:

(1) How did British and Irish students' actual and self-reported French proficiency change after their SA in France? In other words, what are the French L2 proficiency gains during SA through objective and subjective measures?

(2) Is the change in self-reported French proficiency after a year in France linked to initial level of proficiency? In other words, what is the interaction or association between the objective and the subjective measures of gains?

(3) Can the amount of change be linked to participants' reports on their SA experience? In other words, can French L2 proficiency gains during SA be linked to reports on the SA experience?

(4) Does the relationship between actual and self-reported proficiency change between the start and end of the SA period? In other words, does the gap between objective and subjective measures narrow over time?

3. Methodology

In order to capture the complexity of SA outcomes, this study will adopt a longitudinal, mixed-methods approach, which Creswell (2015) defines as an approach where "the investigator gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems" (Creswell 2015, p. 2). More specifically, it will be a convergent parallel design (cf. Creswell and Clark 2011, p. 70), in which quantitative and (some) qualitative data are collected in parallel. Therefore, in addition to the quantitative results, a sample of participant voices describing their SA experience will be included to allow a more nuanced interpretation of statistical findings. Dörnyei (2007) points out that "longitudinal research serves two primary purposes: to describe patterns of change, and to explain causal relationships" (Dörnyei 2007, p. 78). He expresses surprise at the scarcity of longitudinal studies in the field of Applied Linguistics, arguing that the use of mixed longitudinal designs is theoretically warranted, as they are "inherently concerned both with the micro and macro-levels of development and change (for example, individual growth and community change)" (Dörnyei 2007, p. 88). The method received ethical approval from the first author's Research Ethics Committee.

3.1. Design

Initial background information and information on participants' departure and return dates was collected well before departure. It determined the dates when participants were sent an invitation to participate in three further anonymous online questionnaires via email over the course of their SA. Participants completed the LexTALE test and the self-rated proficiency items before their departure (Time 1), they repeated the self-rated proficiency items when they were halfway through their stay in the Francophone country (Time 2), and they completed both the LexTALE and the self-rated proficiency items again after they had completed their stay in the Francophone country and had returned to their home country (Time 3) (see Table 1).

Table 1. Timing of the data collection.

Data	Description	Time Points	Measure
Preliminary background data	Sociobiographical details and information on the SA period	One month before start of academic year	N/A
Actual proficiency	Single holistic, objective measure of French proficiency	T1, T3	LexTALE test
Self-rated proficiency	Subjective rating of proficiency in reading, writing, speaking, listening, grammar, vocabulary, and pronunciation	T1, T2, T3	7 items; 10-point Likert scale
Short narrative	Between 200 and 250 words in French about SA experience	T3	N/A

3.2. Participants

The participants were 33 British and Irish university students from nine different research-intensive universities, who were completing a compulsory year abroad as part of their language studies. To preserve their anonymity, students were asked to create a unique identifier combining their initials and their university and to provide their email address so that they could be contacted later. Most were female (26 females, 7 males); aged 20 (mean age = 20.09); and most had English as their first language (*n* = 31). The majority were studying French as a joint major, often with another language such as Spanish (*n* = 6),

Italian (*n* = 4), German (*n* = 1), or with another subject such as Linguistics (*n* = 6), Business (*n* = 1), History (*n* = 1), Geography (*n* = 1), or Philosophy (*n* = 1).

Students were recruited via a personal email sent through the first author's Year Abroad office and through an open call on the mailing list of the Association for French Language Studies. Participants had been studying French for at least five years, and the mean length of study of French prior to departure was eleven and a half years. All spent between four and twelve months of their year abroad in a Francophone country (see Table 2). As a consequence, "Time 2" ranged from 2 months into SA to 6 months.

Table 2. Duration of SA for participants.

Duration of SA in Months	Number of Participants	Percent
4	1	3.0
5	4	12.1
6	4	12.1
7	6	18.2
8	5	15.2
9	3	9.1
10	7	21.2
12	3	9.1
Total	33	100

There was a fairly even spread in the activities undertaken by participants: ten studied, thirteen completed internships, eight worked as teaching assistants, and two both studied and completed an internship. Most (*n* = 30) went to France—other destinations were Switzerland (*n* = 1), French Guyana (*n* = 1), and New Caledonia (*n* = 1).

3.3. Questionnaires

In order to have an actual proficiency measure, LexTALE tests were administered to participants before their departure and upon their return from their SA (Time 1 and Time 3). The LexTALE test for French was developed by Brysbaert (2013), who followed the procedure used in the original LexTALE test for English (Lemhöfer and Broersma 2012). LexTALE is a visual lexical decision task for intermediate and advanced language learners. It has been shown to be a good predictor of vocabulary knowledge and to give a good indication of general linguistic proficiency (Lemhöfer and Broersma 2012), when compared with the longer, more thorough, Quick Placement Test and the Test of English for International Communication (TOEIC). Lemhöfer and Broersma (2012) equate scores below 0.59 on LexTALE as corresponding to the lower independent users and lower-level descriptors of the Common European Framework (B1 and lower). LexTALE scores between 0.60 and 0.80 correspond to upper independent users (B2), scores between 0.80 and 0.90 correspond to lower advanced (C1) users, and scores above 0.90 correspond to upper advanced (C2) users. In the LexTALE French test, participants are presented with 56 French words of varying difficulty and 28 French-looking non-words, in a random order, and have to identify the real words (see Appendix A). The test has been found not to be at ceiling level even for L1 users (Brysbaert 2013) and so was deemed appropriate for use in this study. The same test was used both times, as this would allow direct comparison of scores. Given the significant time gap between the completion of each test (see Table 2), there was little risk of a training effect. Brysbaert (2013) instrument is popular among researchers who work on French L2 (Wetzel et al. 2020). The initial mean LexTALE score was 0.675.

To strengthen the reliability of the actual proficiency measure and to obtain a more granular view of participants' skills in French, we also added a set of self-reported proficiency items. Participants were asked to assess their own proficiency in reading, writing, speaking, listening, grammar, vocabulary, and pronunciation, on a scale from 1 to 10 at Times 1, 2, and 3. Scores on the various dimensions were analysed individually and an average global score of self-reported proficiency was calculated. Internal consistency of the

seven items was excellent (Cronbach alpha = 0.873 at Time 1, Cronbach alpha = 0.874 at Time 2, and Cronbach alpha = 0.886 at Time 3).

At Time 3, participants were also asked to write between 200 and 250 words in French about their SA experience. They were invited to reflect on whether it had lived up to their expectations, mention some highlights and lowlights, to report on things about Francophone culture that surprised them, and to describe how they felt about going back to full-time study at their home university. This yielded a corpus of 13,855 words.

3.4. Data Analysis

The quantitative data were imported into SPSS 26. As most variables were not normally distributed (Kolmogorov–Smirnov values ranging from 0.098 to 0.262, $p < 0.05$), non-parametric statistics were used, including Spearman rank correlation analyses and Friedman tests, rather than repeated measures ANOVAs. Since *t*-tests tolerate moderate violations of their normality assumption rather well (Rosenkrantz 2008), a paired samples *t*-test was used to assess the change between two time points. A Friedman test was used to assess change over three time points for self-rated proficiency. Spearman rank correlation analyses were used to investigate the relationship between initial proficiency in French and the extent of the difference in actual proficiency between Time 1 and Time 3.

4. Results

4.1. Quantitative Results for Actual Proficiency

In order to answer the first part of the first research question, we ran a paired samples *t*-test. It revealed that the mean actual proficiency score for the whole group, as measured by the LexTALE test, increased significantly between Time 1 and Time 3: ($t(32) = -5.181$, $p < 0.0001$). Cohen's *d* was 0.80, which is indicative of a medium effect size (Plonsky and Oswald 2014)[3] (see Figure 1). In other words, students had moved, on average, from the lower range of upper independent users (B2) to the upper range of B2.
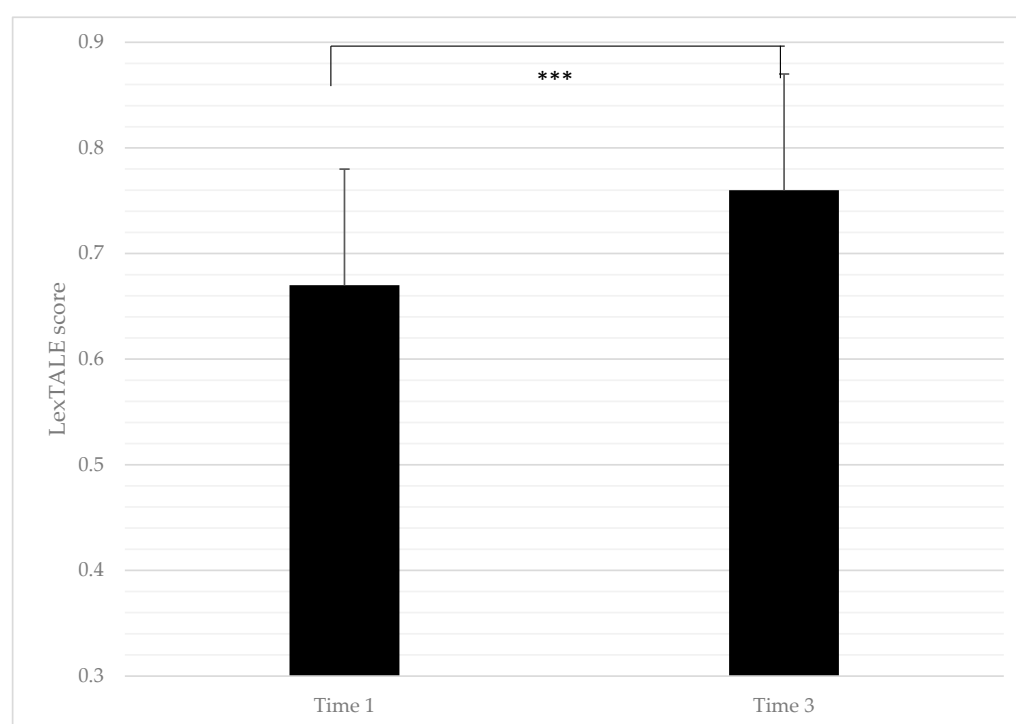
Figure 1. Group mean for actual proficiency at Time 1 and Time 3 (*** $p < 0.001$).

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[3] Plonsky and Oswald (2014) suggest the following interpretation of Cohen's *d* values: "in the neighborhood of 0.40 should be considered small, 0.70 medium, and 1.00 large" (Plonsky and Oswald 2014, p. 889).

An actual proficiency difference score was calculated for each individual by subtracting their LexTALE score at Time 1 from their score at Time 3. The measure thus reflects the amount of change over the SA period. The mean score was 0.085 (SD = 0.09), with a range from −0.04 to 0.38. The relatively high standard deviation suggests that there was a large degree of inter-individual variation. The changes and amount of variation are shown in Figure 2. LexTALE proficiency scores decreased marginally for two students (−0.01 and −0.04), two made no measurable progress, and the remaining 29 made varying amounts of progress.
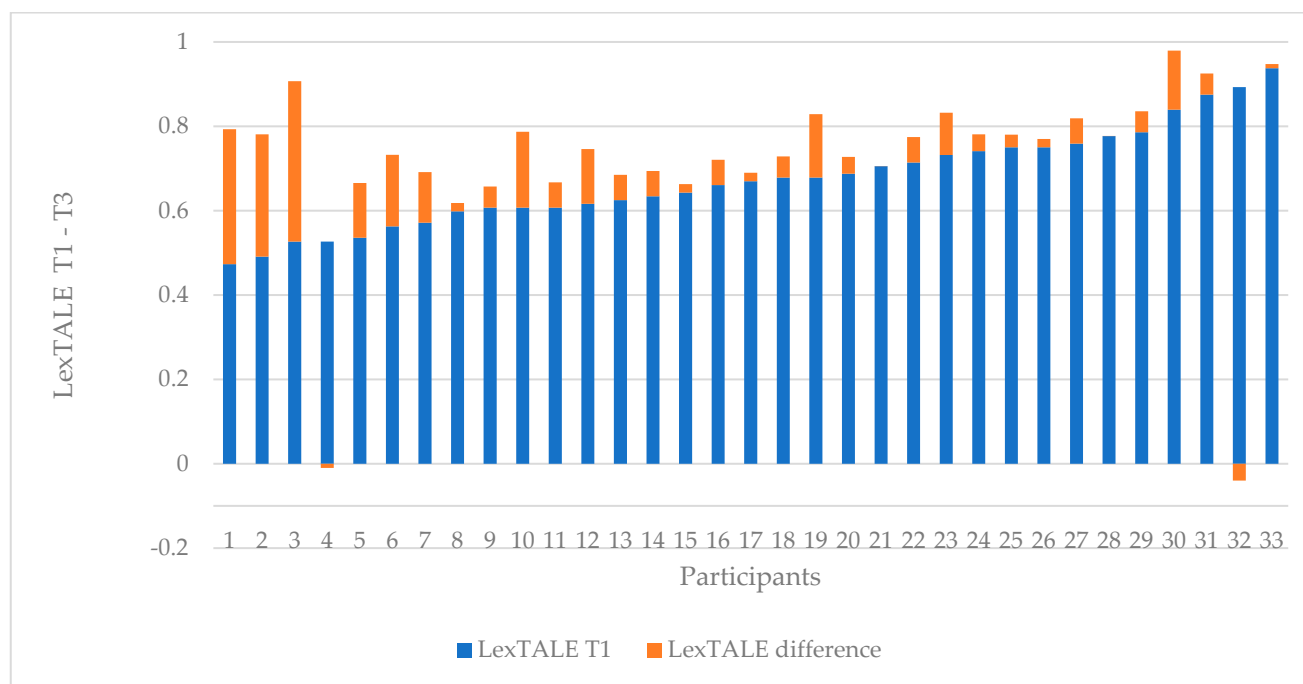
Figure 2. Changes in actual proficiency before and after the SA period, sorted according to the score at Time 1.

Figure 2 shows that the biggest increases emerged among those at the lower end of the LexTALE scale. This was confirmed by a Spearman rank correlation analysis that revealed a significant negative relationship between initial LexTALE scores and the difference score (*Rho* = −0.521, *p* < 0.0001). This is indicative of a medium to large effect size (Plonsky and Oswald 2014)[4]. In other words, participants with the lowest initial scores made the most significant progress, as is shown in Figure 3.

4.2. Quantitative Results for Self-Reported Proficiency

To answer the second part of the first research question, we ran a Friedman test. It also revealed a significant increase in self-reported proficiency between Time 1, 2, and 3 (Chi^2 (32) = 17.9, *p* < 0.001). More detailed analyses (with paired *t*-tests) showed a non-significant increase between Time 1 and 2 (*t* = −1.53, *p* = 0.108, Cohen's *d* = 0.025) and a significant difference between Time 2 and 3 (*t* = 4.703, *p* < 0.001, Cohen's *d* = 0.431, which represents a small effect size). Figure 4 shows the increase in mean scores. In other words, it is only at the end of SA that students' scores started to increase significantly.

In order to obtain a more detailed understanding of which of the four skills and three linguistic domains of French increased most, we ran a series of Friedman tests (see Table 3). It shows a significant increase for all dependent variables from Time 1 to Time 3 except for pronunciation.

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4   Plonsky and Oswald (2014) recommend the following benchmarks for the interpretation of effect size in correlation coefficients: "we suggest that *rs* close to 0.25 be considered small, 0.40 medium, and 0.60 large" (Plonsky and Oswald 2014, p. 889).
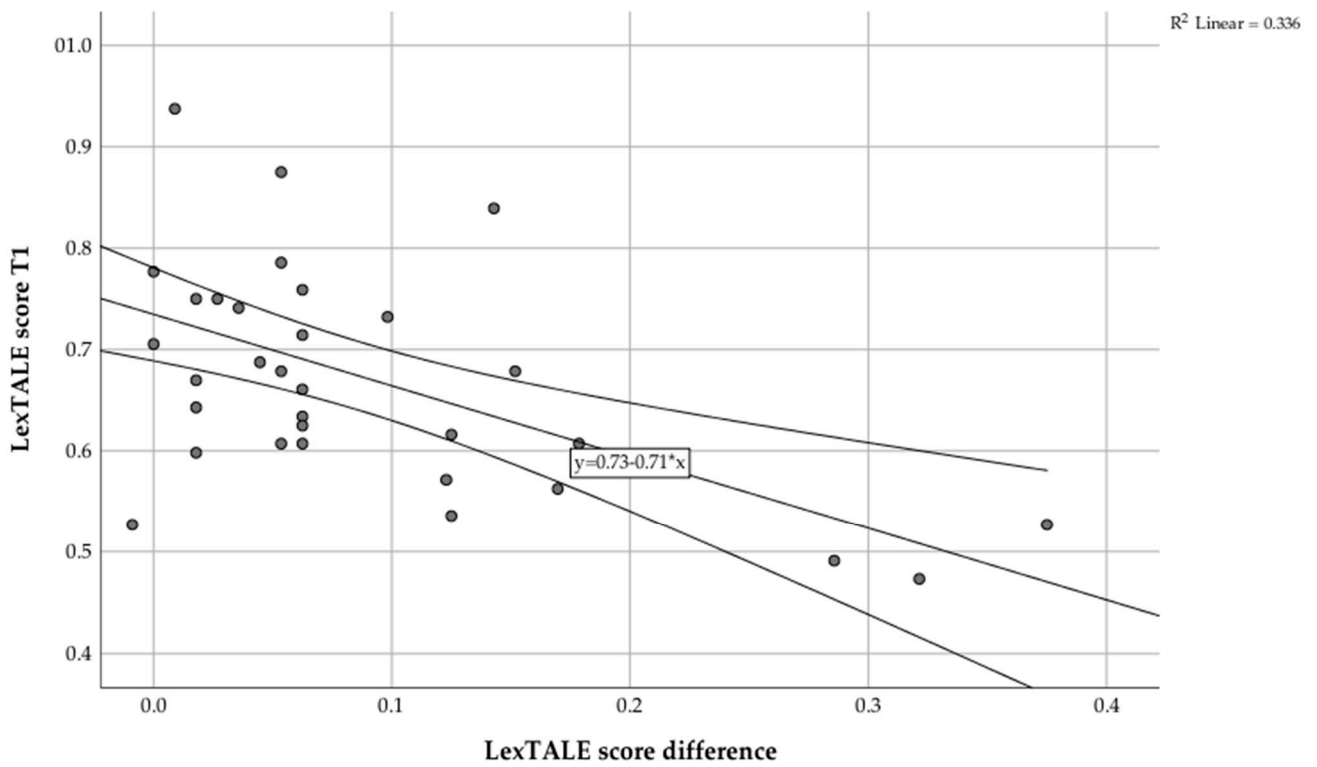
Figure 3. Scatterplot with regression line showing the relationship between initial LexTALE scores and the difference score after the SA period.
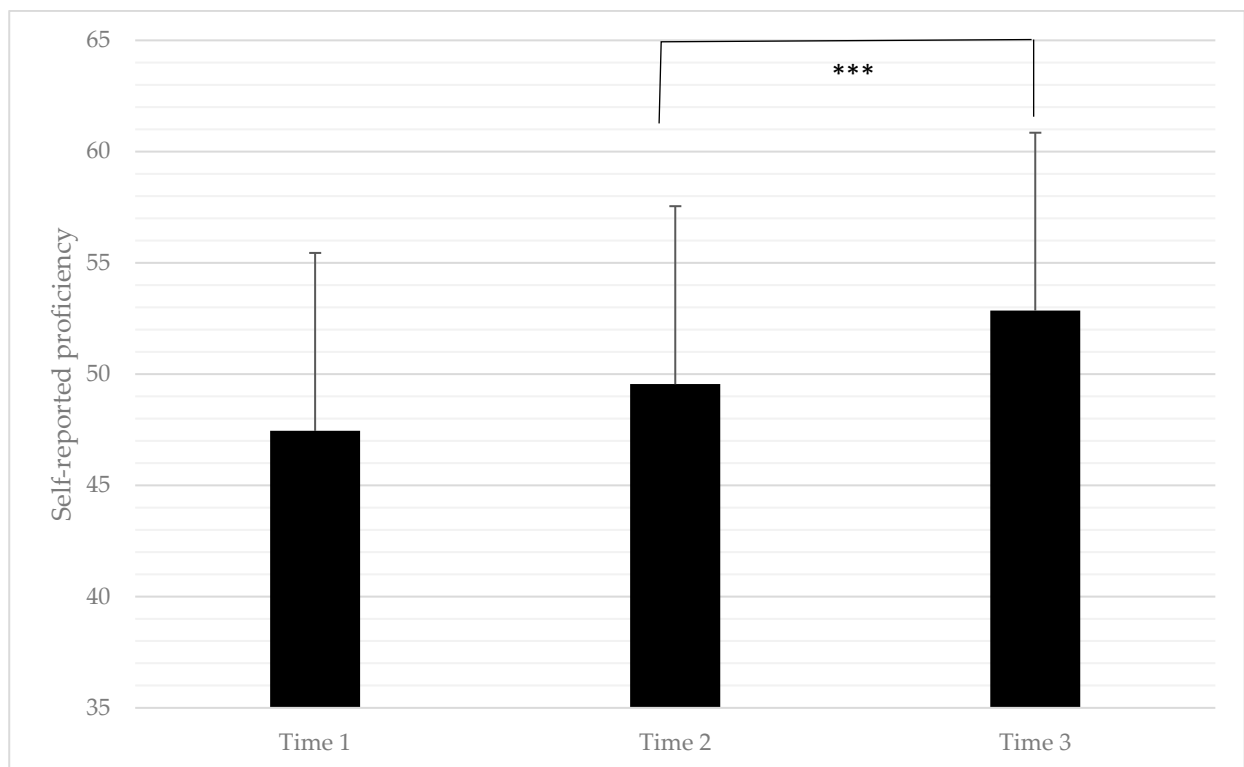
Figure 4. Self-reported proficiency scores from Time 1 to Time 3 (*** $p < 0.001$).

Table 3. Effect of SA on self-reported proficiency in four skills and three domains of French (Friedman tests).

Measure	Reading	Writing	Listening	Speaking	Grammar	Vocabulary	Pronunciation
Chi^2	6.907	11.776	17.116	18.019	11.437	9.172	2.04
p	0.032	0.003	0.0001	0.0001	0.003	0.010	0.35

Zooming in on the trends between the start and the end of the SA period, we used paired *t*-tests to look for differences between Time 1 and Time 2 and again between Time 2 and Time 3. It shows that only oral skills increased significantly both between Time 1 and Time 2 and again between Time 2 and Time 3 (see Table 4 and Figure 5). The other skills and domains did not change significantly between Time and Time 2 but did so between Time 2 and Time 3 (with the exception of pronunciation) (see Table 4 and Figure 6). This suggests that the development is non-linear, with a more pronounced change in the second part of the SA period. The effect sizes can be described as small for speaking between Time and Time 2 and again between Time 2 and Time 3. The effect size of the changes for writing and grammar is also small between Time 2 and Time 3 (Plonsky and Oswald 2014).

Table 4. Pairwise comparisons of self-reported proficiency in four skills and three domains of French between Time 1 and 2 and between Time 2 and 3 (paired *t*-tests with Cohen's d).

	Measure	Reading	Writing	Listening	Speaking	Grammar	Vocabulary	Pronunciation
Time 1 & 2	t	−0.549	−0.466	−2.05	−2.90	−0.447	−1.45	−0.550
	p	ns	ns	0.05	0.007	ns	ns	ns
	d	0.091	0.087	0.227	0.512	0.066	0.284	0.089
Time 2 & 3	t	2.248	4.304	3.125	2.604	3.464	2.171	1.508
	p	0.032	0.0001	0.004	0.014	0.002	0.037	ns
	d	0.280	0.560	0.336	0.343	0.418	0.254	0.173
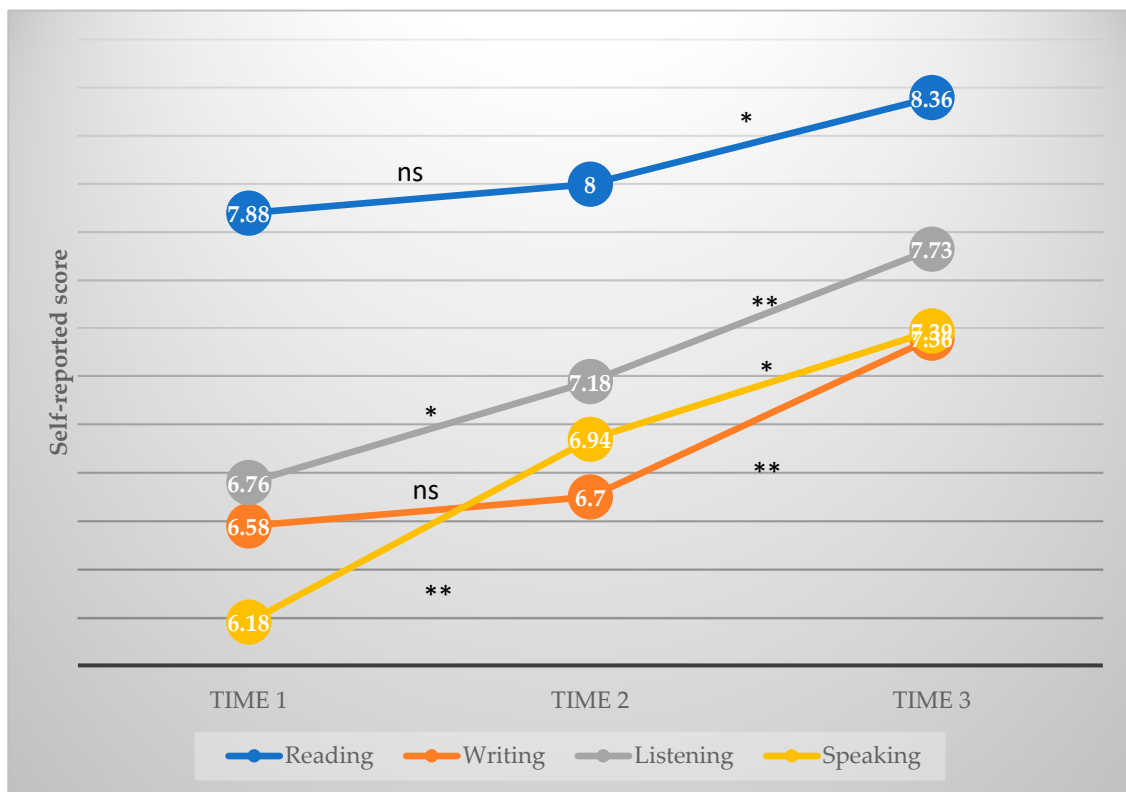
Figure 5. Mean scores for self-reported proficiency in the four skills at Times 1, 2, and 3 (*ns* non-significant, * $p < 0.05$, ** $p < 0.01$).
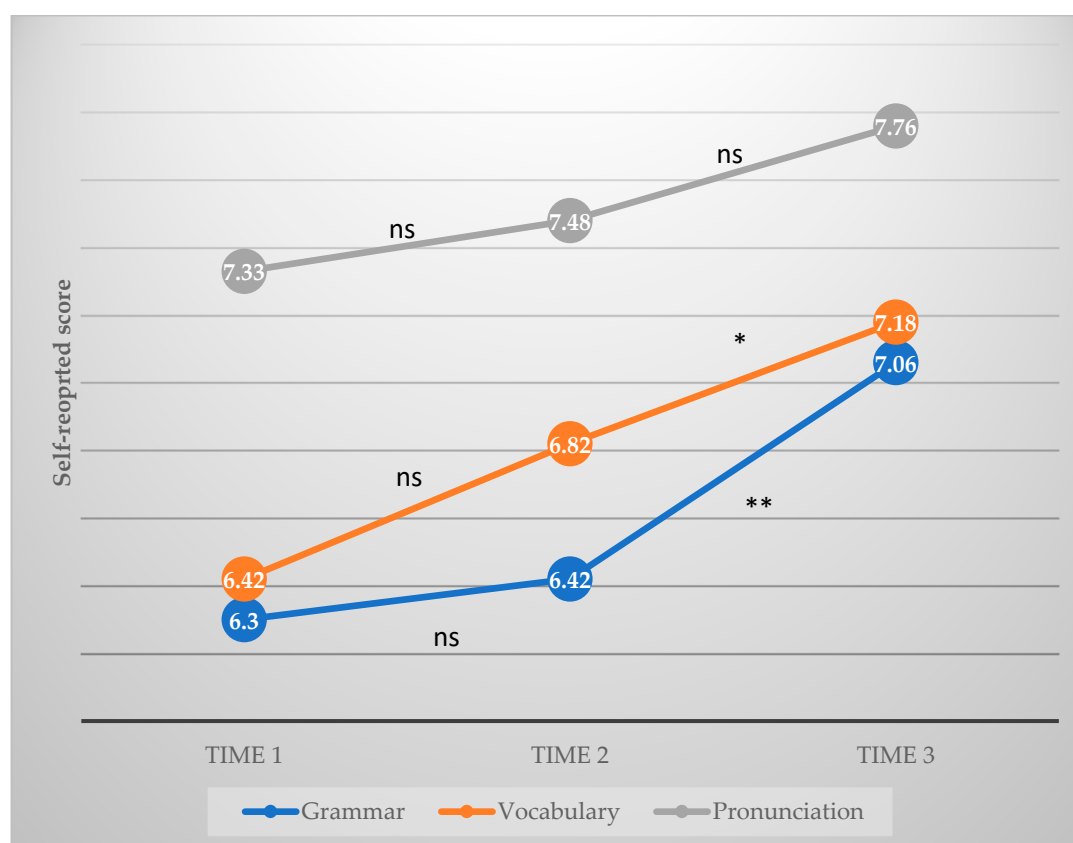
Figure 6. Mean scores for self-reported proficiency in the three domains at Times 1, 2, and 3 (* *p* < 0.05, ** *p* < 0.01).

In order to answer the final research question on the relationship between self-reported proficiency scores and actual proficiency scores, we ran a Spearman rho correlation analysis. A highly significant relationship emerged between participants' self-reported proficiency scores and LexTALE scores at Time 1 (*Rho* (32) = 0.43, *p* < 0.0001) and at Time 3 (*Rho* (32) = 0.56, *p* < 0.0001), which suggests good reliability of both measures.

4.3. Qualitative Analysis

Investigation of the qualitative data, in the form of reports from individual students after their SA, revealed unique patterns and possible reasons to explain why some students made significant progress while others did not. A varied sample of participant reports is presented here. These particular participants' reports were selected to represent the range of different proficiency levels and a range of changes in proficiency scores. The initial reports were made in French but have been translated into English here for ease of reading.

One student who made significant progress, despite having a high initial LexTALE score, was participant 26. She was a French, Spanish, and Portuguese student at the University of Cambridge and spent eight months studying in Paris. Her very high initial LexTALE score of 0.839 (C1 level) increased to a score of 0.981 (C2) (out of a possible 1.0), the highest score of the group. She reports that "My year abroad was one of the best years of my life" and that she is reluctant to return home and leave behind "all of the interesting people I met in Paris". She clearly integrated very well and made many French friends, which helped her still to make significant improvements to her French proficiency despite her very high initial score.

Another student, participant 10, who had a lower initial LexTALE score, equally made significant progress. She was a French and Philosophy student at Oxford University, had an initial score of 0.616 (the lower end of B2 level), but finished with a score of 0.741 (the higher end of B2 level). She worked as a teaching assistant in French Guyana for eight months. In her discussion of her SA, she mentions that she had previously found her French

studies at university to be "painfully discouraging". However, on her SA, she made many Francophone friends and found "a new, positive attitude". While these students improved significantly and reported positive experiences, it was possible to improve without having a positive experience.

For example, participant 25, who studied French at Queen's University Belfast and spent ten months at the University of Poitiers, had a LexTALE score that increased from 0.527 (B1 level) to 0.902 (C2 level), despite describing her experience in France as being generally difficult and lonely. It thus seems that a positive experience is not essential for linguistic progress.

> Participant 25: My year abroad did not go as expected. It was difficult and I often felt lonely. There were a few fun moments with friends, or when I went to visit some tourist sites . . . Altogether my year abroad wasn't great but I think I did improve my French.

However, not all students made significant progress: participant 31, who studied International Relations with French at the University of Portsmouth and spent 10 months studying in Lyon, made no measurable progress. His initial LexTALE score was fairly low at 0.527 (B1 level), and he had a slightly lower score of 0.518 after the SA period. He reports that "there was not much to do at the university", which suggests that he did not socialise much and may not have used French frequently enough to make progress in proficiency.

Equally, not all participants who had made little or no progress had low initial proficiency scores, as is demonstrated by participant 14. Her first language is Romanian and she studied Law and French at the University of Oxford. She spent 10 months at the Panthéon-Assas University, also referred to as the "Sorbonne Law School". Although she obtained a slightly lower score at Time 3 (C1 level) than at Time 1 (borderline C2 level), her LexTALE score is still one of the highest (Time 1 score: 0.892; Time 2 score: 0.848). She had lived in France for seven years before moving to the UK and has an advanced proficiency level in French. It would thus be wrong to interpret the lower score as a sign of "deterioration" in French proficiency. Her feelings about her SA are ambiguous:

> Participant 14: I really enjoyed my year abroad. I missed my Oxford friends a lot, but I was able to visit them a lot, and I made a lot of new friends. One of the things I found the hardest was having to revise for exams twice a year. I can't wait to go back to Oxford as there are a few things I've been missing, but equally I don't really want to have my exams next year.

5. Discussion

The first research question asked how students' actual and self-reported proficiency changed after their SA. Both increased significantly. Most students were at the lower end of upper independent users (B2) in French before departing and progressed, on average, to the higher end of upper independent users (B2) in French. The highly significant increase in target language proficiency is similar to that reported by Hessel (2017) for German Erasmus students in the UK. Hessel found that her participants' English proficiency increased significantly during their first three months in the UK, a small effect size ($d = 0.57$) (Hessel 2017, p. 43). In fact, the effect size in the present study is larger ($d = 0.80$), possibly because the duration of the SA period was longer.

The global self-reported proficiency scores from Time 1, Time 2, and Time 3 demonstrated similar trends to the actual proficiency scores, with the effect size being larger between Time 2 and Time 3 than between Time 1 and Time 2. This was confirmed by looking at individual items for the four skills and the three domains. Speaking was the only skill to reach the threshold for a small effect size between Time 1 and Time 2 and again between Time 2 and Time 3. The increase for self-reported scores for writing and grammar reached a small effect size between Time 2 and Time 3. This reflects the findings by Mitchell et al. (2017) that progress is not always linear and that different skills and domains may develop at different speeds. The present investigation thus adds to the growing

evidence that SA boosts linguistic proficiency in areas other than oral proficiency (Rees and Klapper 2007; Juan-Garau et al. 2014; Mitchell et al. 2017; Hessel 2017; Edmonds and Gudmestad 2018).

There was considerable variation between students in terms of how much progress they made, with some not making any measurable improvement, while others made considerable gains. This is again consistent with the literature, where the amount of variation between individuals has long been identified as one of the main features of SA and for which no complete explanation has yet been found despite a long list of variables that explain some variance (Briggs Baffoe-Djan and Zhou 2021; DeKeyser 2014; Kinginger 2008; Mitchell et al. 2017).

The second research question dealt with the effect of initial proficiency on linguistic gains at the end of the SA period. A highly significant inverse relationship between initial proficiency and actual proficiency difference emerged in this study, where those with lower initial proficiency improved more. This deviates from the findings in Leonard and Shea (2017) but corroborates findings from other studies, such as Hessel (2017), where initial L2 proficiency was found to be the strongest predictor of L2 proficiency gain after the SA period. Edmonds and Gudmestad (2018) reported similar results and concluded that students' high global proficiency before departure was key to their progress. It must be noted that these results do not contradict the idea of a proficiency threshold above which learners are found to make the most progress (Lafford and Collentine 2006). As mentioned above, the students in this study are all "independent" to "advanced" users of French, who are above the proficiency threshold level (DeKeyser 2014).

The third research question focused on the potential of the qualitative data to shed light on potential causes of change in proficiency. It showed that for the majority of participants, SA had been a relatively mixed experience, which often defied previous expectations and where there were significant emotional highs and lows. A common refrain in participants' comments was that the year abroad did not go as planned (cf. Klapper and Rees 2012). For example, many participants reported that their universities had often been closed as a result of strikes, meaning that they therefore had far less exposure to French and French people than they had expected. They may have had the best of intentions, and gone with a very positive attitude, but they were denied the opportunity to build French social networks.

An interesting finding is also that the reported enjoyment, or the lack of it, did not always correlate with how much progress students made. Some students reported having a very positive experience and made significant progress, while others who had a positive experience made little progress. Correspondingly, some students who reported having less positive experiences made significant progress, and some who had less positive experiences made little progress. It would thus appear that other factors have more of an impact on proficiency.

While there was a confirmation of the general pattern that larger proficiency gains corresponded to a more positive SA experience and that there was a link between those with more limited linguistic gains and a negative experience, there were also a number of participants who deviated from this pattern. Participants whose actual proficiency had decreased between Time 1 and Time 3 had not necessarily regressed linguistically but had scores that were close to the ceiling level. Moreover, while those with lower initial proficiency did make the biggest proficiency gains, some participants with a high initial proficiency had also made significant gains by Time 3.

The picture that emerges is that besides the common trend—a general gain in actual and self-perceived proficiency—every participant had had a unique experience and mixed feelings. Some participants enjoyed many aspects of their SA but not necessarily all of them, while others did not enjoy the experience overall but did appreciate certain aspects, such as tourism (which is reminiscent of certain participants in Kinginger (2008) study). Some participants made many French friends, even boyfriends, while others were isolated or only had Anglophone friends; some did not want to leave France after SA, while others could not wait to go back and re-integrate into campus life at their home

university. These findings confirm Kinginger (2008, 2011); Devlin (2013); Mougeon and Rehner (2015); Mitchell et al. (2017), and Briggs Baffoe-Djan and Zhou (2021) observations that engagement with the host environment—and both quantity and quality of language contact—are key to linguistic progress. In other words, the individual's role is central.

The qualitative data showed that some participants found a way to develop new social networks with Francophones or to establish close relationships with Francophones, while others floundered and fell back on their existing Anglophone networks. It is likely that some were better equipped psychologically to overcome the adversities that they were facing. If experience affects proficiency outcomes, this variability of experience between participants helps to explain why there is so much variation in outcomes between participants. It does confirm Howard (2021) observation that learners need "to be active participants in contributing to shaping their language contact opportunities and general experiences" (Howard 2021, p. 7).

The relationship between actual and self-reported proficiency at the start and end of SA was the focus of the fourth and final research question and was an opportunity to test the reliability of both measures. The correlation value between both measures was highly significant both times but it was even higher at Time 3 than at Time 1. This could be attributed to a more accurate judgment of French proficiency. Before their departure, participants would typically have compared their performance with that of their peers and teachers. After the year abroad, they had accumulated multiple daily opportunities to compare their performance with that of L1 users and foreign language users around them, allowing them to judge their performance more accurately.

The current study is not without limitations. Only 33 out of the initial 54 participants provided data three times. Attrition is a well-known problem in longitudinal studies (Dörnyei 2007) and it is particularly hard to obtain data during SA when participants have a lot on their mind. As a consequence, there is a risk that those who failed to complete the second and third survey may have had a slightly different profile and SA experience from those who did complete the three surveys. In other words, our 33 participants may have a unique profile and may therefore not be representative of the whole cohort.

6. Conclusions

The present study sought to measure the effect of SA in Francophone countries on both actual and self-reported French proficiency of British and Irish students. The results show that both actual proficiency and self-reported proficiency increased significantly after SA.

Because data for self-reported proficiency had been collected three times, it emerged that the increase was more linear for speaking and listening than it was for reading and writing, with the significant increase occurring after the SA mid-way point. The same pattern was found for grammar and vocabulary. The only domain where no significant change occurred over the SA period was pronunciation. Linking change in actual proficiency between Time 1 and Time 3 to participants' descriptions of their SA revealed a clear disconnect between progress and the overall positivity of the experience. Some students who had struggled actually made good progress. The establishment of a local French social network emerged as an important factor and random events such as university strikes were linked to limited progress.

Participants with lower actual proficiency at Time 1, namely lower and upper independent users (B1 and B2), were found to have made the most significant progress during SA.

To conclude, SA provides students with opportunities to boost their linguistic skills in parallel with a strengthening of their resilience in the face of loneliness and occasional adversity. It seems that the decision to actively take control and shape the SA experience was more likely to lead to linguistic progress than the mere enjoyment of the experience.

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Appendix A

LexTALE_FR

abêtir, agire, alourdir, amadouer, amorce, balai, bouilloire, boutard, bouton, caddie, cadenas, canoter, capeline, cerveler, cessure, chameau, cheveux, cintre, citrouille, cloche, clouer, crayon, dauphin, détume, écorché, écouce, écureuil, église, endifier, ennemi, escroc, esquif, éventail, fascine, fenêtre, fosse, fouet, fourmi, gloque, hache, honteur, huif, inciter, indicible, infâme, jamain, joueux, lanière, lézard, mappemonde, marteau, metter, mignon, nouer, occire, œillet, oeuiller, orgueil, osseaux, panier, parchance, parir, peigne, pinceau, plaiser, pouce, pourcine, prioche, procoreux, racaille, raplaner, rejoute, remporter, réporce, retruire, robinet, sacher, salière, semonce, sentuelle, soumon, tanin, treillage, vicelard.

References

Arvidsson, Klara, June Eyckmans, Alexra Rosiers, and Fanny Forsberg Lundell. 2018. Self-perceived linguistic progress, target language use and personality development during study abroad. *Study Abroad Research in Second Language Acquisition and International Education* 3: 144–66. [CrossRef]

Brecht, Richard D., Dan Davidson, and Ralph Ginsberg. 1993. Predictors of foreign language gain during study abroad. In *NFLC Occasional Papers*. Washington, DC: National Foreign Language Center.

Brecht, Richard D., Dan Davidson, and Ralph Ginsberg. 1995. Predictors of foreign language gain during study abroad. In *Second Language Acquisition in a Study Abroad Context*. Edited by Barbara F. Freed. Amsterdam: John Benjamins, pp. 37–66.

Briggs Baffoe-Djan, Jessica, and Siyang Zhou. 2021. Close encounters of the third kind: Quantity, type and quality of language contact during study abroad. In *Study Abroad and the Second Language Learner: Expectations, Experiences and Development*. Edited by Martin Howard. London: Bloomsbury, pp. 69–90.

Brysbaert, Marc. 2013. LexTALE_FR: A fast, free, and efficient test to measure language proficiency in French. *Psychologica Belgica* 53: 23–37. [CrossRef]

Carroll, John B. 1967. Foreign language proficiency levels attained by language majors near graduation from college. *Foreign Language Annals* 1: 131–51. [CrossRef]

Coleman, Jim. 2009. Study abroad and SLA: Defining goals and variables. In *Sprachlehrforschung: Theorie und Empire, Festschrift fur Rudiger Grotjahn*. Edited by Annette Berndt and Karin Kleppin. Frankfurt am Main: Peter Lang, pp. 181–96.

Collentine, Joseph. 2004. The effects of learning contexts on morphosyntactic and lexical development. *Studies in Second Language Acquisition* 26: 227–48. [CrossRef]

Collentine, Joseph. 2009. Study abroad Research: Findings, implications, and future directions. In *The Handbook of Language Teaching*. Edited by Michael H. Long and Catherine J. Doughty. Hoboken: John Wiley & Sons, pp. 218–33.

Collentine, Joseph, and Barbara Freed. 2004. Learning Context and Its Effects on Second Language Acquisition. Introduction. *Studies in Second Language Acquisition* 26: 153–71. [CrossRef]

Creswell, John W. 2015. *A Concise Introduction to Mixed Methods Research*. Thousand Oaks: Sage Publications.

Creswell, John W., and Vicky L. Plano Clark. 2011. *Designing and Conducting Mixed Methods Research*, 2nd ed. Los Angeles: Sage Publications.

DeKeyser, Robert M. 1990. From learning to acquisition? Monitoring in the classroom and abroad. *Hispania* 73: 238–47. [CrossRef]

DeKeyser, Robert M. 1991. Foreign language development during a semester abroad. In *Foreign Language Acquisition Research and the Classroom*. Edited by Barbara Freed. Lexington: D. C. Heath, pp. 104–19.

DeKeyser, Robert M. 2007. *Practice in a Second Language: Perspectives from Applied Linguistics and Cognitive Psychology*. Cambridge: Cambridge University Press.

DeKeyser, Robert M. 2014. Research on language development during study abroad. In *Second Language Acquisition in Study Abroad and Formal Instruction Contexts*. Edited by Carmen Pérez-Vidal. Amsterdam: John Benjamins, pp. 313–26.

Devlin, Anne Marie. 2013. Towards an understanding of the impact of intensity and diversity of contact with the TL during study abroad on the construction of identity: The case of non-native speaker teachers of English. *EUROSLA Yearbook* 13: 199–225. [CrossRef]

Dewey, Dan P., R. Kirk Belnap, and Rebecca Hillstrom. 2013. Social network development, language use, and language acquisition during Study Abroad: Arabic language learners' perspectives. *Frontiers: The Interdisciplinary Journal of Study Abroad* 22: 84–110. [CrossRef]

Dörnyei, Zoltan. 2007. *Research Methods in Applied Linguistics: Quantitative, Qualitative and Mixed Methodologies*. Oxford: Oxford University Press.

Edmonds, Amanda, and Aarnes Gudmestad. 2018. Gender marking in written L2 French. *Study Abroad Research in Second Language Acquisition and International Education* 3: 58–83. [CrossRef]

European Commission. 2018. *Erasmus+ Annual Report*. Brussels: Directorate-General for Education, Youth, Sport and Culture.

Freed, Barbara F. 1995. What makes us think that students who study abroad become fluent? In *Second Language Acquisition in a Study Abroad Context*. Edited by Barbara F. Freed. Amsterdam: John Benjamins, pp. 123–48.

Gass, Sue. 2017. Commentary 1: SLA and Study Abroad: A focus on methodology. *System* 71: 46–48. [CrossRef]

Grey, Sarah, Jessica G. Cox, Ellen J. Serafini, and Cristina Sanz. 2015. The role of individual differences in the study abroad context: Cognitive capacity and language development during short-term intensive language exposure. *The Modern Language Journal* 99: 137–57. [CrossRef]

Hessel, Gianna. 2017. A new take on individual differences in L2 proficiency gain during study abroad. *System* 66: 39–55. [CrossRef]

Howard, Martin. 2005. On the role of context in the development of learner language: Insights from study abroad research. *International Journal of Applied Linguistics* 147: 1–20. [CrossRef]

Howard, Martin. 2021. Study abroad and the second language learner. An introduction. In *Study Abroad and the Second Language Learner: Expectations, Experiences and Development*. Edited by Martin Howard. London: Bloomsbury, pp. 1–13.

Isabelli-García, Christina. 2006. Study abroad social networks, motivation and attitudes: Implications for second language acquisition. In *Language Learners in Study Abroad Contexts*. Edited by Margaret A. DuFon and Eton Churchill. Clevedon: Multilingual Matters, pp. 231–58.

Jensen, Julia, and Martin Howard. 2014. The effects of time in the development of complexity and accuracy during Study Abroad: A study of French and Chinese learners of English. *EuroSLA Yearbook* 14: 31–64. [CrossRef]

Juan-Garau, Maria, Joanna Salazar-Noguera, and José Igor Prieto-Arranz. 2014. English L2 learners' lexico-grammatical and motivational development at home and abroad. In *Language Acquisition in Study Abroad and Formal Instruction Contexts*. Edited by Carmen Pérez-Vidal. Amsterdam: John Benjamins, pp. 235–58.

Kinginger, Celeste. 2008. Language learning in study abroad: Case studies of Americans in France. *The Modern Language Journal* 92: 1–124. [CrossRef]

Kinginger, Celeste. 2011. Enhancing language learning in Study Abroad. *Annual Review of Applied Linguistics* 31: 58–73. [CrossRef]

Klapper, John, and Jonathan Rees. 2012. University residence abroad for foreign language students: Analysing the linguistic benefits. *Language Learning Journal* 40: 335–58. [CrossRef]

Lafford, Barbara, and Joseph Collentine. 2006. The effects of study abroad and classroom contexts on the acquisition of Spanish as a second language: From research to application. In *The Art of Teaching Spanish: Language Acquisition from Research to Praxis*. Edited by Rafael Salaberry and Barbara Lafford. Washington, DC: Georgetown University Press, pp. 103–26.

Lemhöfer, Kristin, and Mirjam Broersma. 2012. Introducing LexTALE: A quick and valid Lexical Test for Advanced Learners of English. *Behavior Research Methods* 44: 325–43. [CrossRef]

Leonard, Karen, and Christine Shea. 2017. L2 speaking development during study abroad: Fluency, accuracy, complexity and underlying cognitive factors. *The Modern Language Journal* 101: 179–93. [CrossRef]

Milton, Jim, and Paul Meara. 1995. How periods abroad affect vocabulary growth in a foreign language. *ITL Review of Applied Linguistics* 107: 17–34. [CrossRef]

Mitchell, Rosamond, Nicole Tracy-Ventura, and Kevin McManus. 2017. *Anglophone Students Abroad: Identity, Social Relationships, and Language Learning*. London: Routledge.

Moratinos-Johnston, Sofía, Maria Juan-Garau, and Joana Salazar Noguera. 2021. Study abroad for secondary and higher education students: Differences and similarities in their interaction with the learning environment. In *Study Abroad and the Second Language Learner: Expectations, Experiences and Development*. Edited by Martin Howard. London: Bloomsbury, pp. 91–114.

Mougeon, Françoise, and Katherine Rehner. 2015. Engagement portraits and (socio) linguistic performance: A transversal and longitudinal study of advanced L2 learners. *Studies in Second Language Acquisition* 37: 425–56. [CrossRef]

Pérez-Vidal, Carmen, and Elisa Barquin. 2014. Comparing progress in academic writing after formal instruction and study abroad. In *Language Acquisition in Study Abroad and Formal Instruction Contexts*. Edited by Carmen Pérez-Vidal. Amsterdam: John Benjamins, pp. 217–34.

Pérez-Vidal, Carmen, and Maria Juan-Garau. 2009. The effect of study abroad (SA) on written performance. *Eurosla Yearbook* 9: 269–95. [CrossRef]

Pérez-Vidal, Carmen, and Maria Juan-Garau. 2011. The effect of context and input conditions on oral and written development: A Study Abroad perspective. *International Review of Applied Linguistics* 49: 157–85. [CrossRef]

Plonsky, Luke, and Frederick L. Oswald. 2014. How big is "big"? Interpreting effect sizes in L2 research. *Language Learning* 64: 878–912. [CrossRef]

Rees, John, and Jonathan Klapper. 2007. Analysing and evaluating the linguistic benefit of residence abroad for UK foreign language students. *Assessment and Evaluation in Higher Education* 32: 331–53. [CrossRef]

Regan, Vera, Martin Howard, and Isabelle Lemée. 2009. *The Acquisition of Sociolinguistic Competence in a Study Abroad Context*. Bristol: Multilingual Matters.

Rosenkrantz, Walter A. 2008. *Introduction to Probability and Statistics for Science, Engineering, and Finance*. Boca Raton: Chapman & Hall-CRC.

Sanz, Cristina. 2014. Contributions of study abroad research to our understanding of SLA processes and outcomes: The SALA project, an appraisal. In *Second Language Acquisition in Study Abroad and Formal Instruction Contexts*. Edited by Carmen Pérez-Vidal. Amsterdam: John Benjamins, pp. 1–16.

Segalowitz, Norman, and Barbara F. Freed. 2004. Context, contact, and cognition in oral fluency acquisition: Learning Spanish in at home and study abroad contexts. *Studies in Second Language Acquisition* 26: 173–99. [CrossRef]

Serrano, Raquel, Elsa Tragant, and Àngels Llanes. 2012. A longitudinal analysis of the effects of one year abroad. *Canadian Modern Language Review* 68: 138–63. [CrossRef]

Watzinger-Tharp, Johanna. 2014. Are global, international, and Foreign Language studies connected? In *Transforming Postsecondary Foreign Language Teaching in the United States*. Edited by Janet Swaffar and Per Urlaub. Cham: Springer, pp. 123–42.

Wetzel, Mathis, Sandrine Zufferey, and Pascal Gygax. 2020. Second Language Acquisition and the mastery of discourse connectives: Assessing the factors that hinder L2-learners from mastering French connectives. *Languages* 5: 35. [CrossRef]

Input Issues in the Development of L2 French Morphosyntax

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Abstract: The aim of this article is to discuss the role of input characteristics in the development of French verb morphology. From a usage-based perspective, several cognitive and linguistic factors contribute to the ease or difficulty of processing input in L2 acquisition. This article concentrates on frequency, salience, and form–function association, factors that might influence what aspects of input are available to the learners' attention. A presentation of French verb morphology from this perspective shows how these factors can contribute to the use of the regular -*er* verb paradigm as a default. A review of empirical studies confirms the influence of input characteristics. The results suggest that the dominant pattern of regular verbs and the scarcity of salient clues from irregular verbs contribute to the specificity of L2 French development. The conclusion addresses the question of enriching L2 classroom input with irregular verbs. Such an input could facilitate the perception of form–function association, and thus, contribute to a more efficient development of French verb morphology. The article concludes by suggesting other ways of studying the influence of input as well as avenues for future research.

Keywords: input; SLA; French; morphosyntax; frequency; usage-based approaches

1. Introduction

This contribution to the special issue on the acquisition of French will focus on the role of input in the development of L2 French. This area of research has received a great deal of attention during the last 20 years. Studies have mainly been conducted within the usage-based approach, an approach that posits a close relationship between the language to which the learners are exposed and its representation as observed in learner production (Barlow and Kemmer 2000; Gass 2015). The work of Nick Ellis and colleagues has highlighted the interaction between cognitive factors, especially attentional processes, and linguistic factors, i.e., input characteristics of the target language, to explain the ease or difficulty of acquisition of a specific structure (Ellis 2006; Ellis et al. 2016). In this view, input is not the raw language found in native speakers but language as processed (Ellis 2006, p. 179). Accordingly, a target language does not appear to L2 learners as it is described in grammar books but rather in terms of input to L2 learners. This way of looking at language is important as a contribution to the understanding of L2 acquisition and even more to the improvement of L2 teaching.

Cognitive approaches to L2 acquisition have shown that working memory and cognitive processes related to attention play a crucial role in language processing and learning. Schmidt (2001) presented the basic assumptions of attention, which, besides controlling access to consciousness, is also limited and selective. His assertion that "SLA is largely driven by what learners pay attention to and notice in target language input and what they understand the significance of noticed input to be." (Schmidt 2001, pp. 3–4) is commonly accepted today (Ellis et al. 2016, p. 23).

Another important factor is of course the linguistic routines established in the L1 (and other well-mastered languages). The L1 plays a crucial role in the perception of the target language; L2 acquisition is "shaped by the L1" (Ellis 2006, p. 164).

In this contribution, I will mainly focus on linguistic factors that interact with the attentional processes, making a specific phenomenon of the target language more or less available to the focus of attention, and thus, more or less available as input to the learner. Some of these factors are presented in the next section. Section 3 provides an introduction to French verb morphology. Section 4 provides a review of some studies that have examined the role of input in L2 French, especially in the acquisition of French verb morphology. Section 5 is devoted to a short conclusion and suggests other methods for studying the influence of input.

2. Linguistic Factors and Input Characteristics

This section is devoted to a short introduction of some linguistic factors that contribute to input processing: frequency, salience, and form–function association.

The factor input frequency is based on two types of calculations: token and type frequency (Bybee 2008). Token frequency corresponds to the number of occurrences in a given text, whereas type frequency corresponds to the number of items that participate in the same pattern, the number of items "that can fill a slot in a particular construction" (Behrens and Pfänder 2016, p. 9). These two ways of calculation tell us how often a linguistic item appears in the input (Ellis et al. 2016, p. 52).

Token frequency allows for the comparison of the frequency of different items, such as specific lexical items, lemmas, or morphemes in a given text or corpus. Token frequency has an effect on the level of lexical strength and of availability in memory of an item. The lexical strength of an item refers to its level of autonomy or connection to related items (Bybee 1995, 2008), for example the present tense "is" in relation to the infinitive "be." Importantly, the dominance of one form over other forms is not restricted to irregular paradigms; rather, it is the contrast between two or more forms in terms of token frequency that determines dominance.

Type frequency, on the other hand, has an effect on the productivity of a given pattern; a productive pattern might be used on novel items (Bybee 1995, p. 430). In L2 language acquisition, type frequency could explain the overextension of a given pattern on others, for example, the use of the regular past participle *-é* on irregular verbs such as *prendre* 'take,' which results in the production of *pren[e]* or *prend[e]* instead of *pris*. Type frequency is sometimes seen as the critical mass of input needed to acquire a specific pattern (Paradis 2010).

Another factor is salience, which is the degree to which an item "stands out relative to its context" (Ellis et al. 2016, p. 47). For this article, the most important issue is the low salience of grammatical function words and morphemes in L2 learning. Highly frequent function words, such as auxiliaries, may go unnoticed because of their phonological and semantic characteristics: they are unstressed and often perceived as redundant (for example, in the case of a compound past tense, the pastness is already given in an adverb or in the past participle). This results in incorrect productions of subject + non-finite form constructions (e.g., *je parl[e]* or *je vu*).

A third important factor is the form–function association (Ellis 2006; Ellis et al. 2016). This factor refers to the level of systematic association between a specific form and a specific function, or how reliably a specific morpheme is associated to a specific function. It can also be described in terms of probability: what is the probability that morpheme x corresponds to function y? The issue here concerns homophony and polyfunctionality. For example, the morpheme *-s* has many grammatical functions in English, including: 3rd person singular, 'he books a flight'; possessive, 'the book's cover'; and plural, 'three books.' This morpheme is a reliable plural marker, but it is not restricted to that function. This makes the *-s* marker ambiguous, thus necessitating a larger context for disambiguation and interpretation.

Finally, semantic and distributional properties also play a role in input characteristics, although they are closely related to the factors mentioned above. For example, the aspect hypothesis is based on the distribution of past tense morphology according to the verb's

semantic (lexical) aspect. In this view, the frequent association of imperfective with state verbs will make this association salient in the input to the learners (Andersen 2002).

These factors allow us to formulate hypotheses about the ease or difficulty with which a given item may be encountered, noticed, and possibly learned in L2 acquisition, since they reflect the regularities and irregularities in a given language. Research in psycholinguistics has shown that "language processing is sensitive to the statistical regularities of language experience at every level of structure" (Ellis et al. 2016, p. 279). Goldschneider and DeKeyser (2001) and Collins et al. (2009) are examples of studies that test the influence of input characteristics on the order of acquisition of L2 English. They both show that these characteristics "explain a substantial amount of acquisition difficulty" (Ellis 2006, p. 173).

A general hypothesis about the longitudinal development of French L2 morphosyntax was developed some time ago by Bartning and Schlyter (2004). It appears that French verb morphology is a challenge even at advanced stages (Bartning et al. 2009). As Prévost puts it, "adults learning L2 French seem to struggle with inflectional morphology" (Prévost 2009, p. 83). There is very little research about the role of French input characteristics on this L2 French developmental path, but there are some studies that address specific morphological issues. They will be reviewed after the next section, which will present French verb morphology.

3. French Verb Morphology

This section is devoted to an introduction to French verb morphology and a discussion of its characteristics in terms of L2 learner input.

Traditionally, French verb morphology is portrayed as illustrated in Figure 1. It seems that there is one specific form for each grammatical person in each tense. In the past, learners of French had to know these paradigms by heart and be able to recite *je lis, tu lis . . . .*

Indicatif

Présent	Passé composé	Imparfait	Plus-que-parfait
je lis	j'ai lu	je lisais	j'avais lu
tu lis	tu as lu	tu lisais	tu avais lu
il lit	il a lu	il lisait	il avait lu
nous lisons	nous avons lu	nous lisions	nous avions lu
vous lisez	vous avez lu	vous lisiez	vous aviez lu
ils lisent	ils ont lu	ils lisaient	ils avaient lu

Passé simple	Passé antérieur	Futur simple	Futur antérieur
je lus	j'eus lu	je lirai	j'aurai lu
tu lus	tu eus lu	tu liras	tu auras lu
il lut	il eut lu	il lira	il aura lu
nous lûmes	nous eûmes lu	nous lirons	nous aurons lu
vous lûtes	vous eûtes lu	vous lirez	vous aurez lu
ils lurent	ils eurent lu	ils liront	ils auront lu

Subjonctif

Présent	Passé	Imparfait	Plus-que-parfait
que je lise	que j'aie lu	que je lusse	que j'eusse lu
que tu lises	que tu aies lu	que tu lusses	que tu eusses lu
qu'il lise	qu'il ait lu	qu'il lût	qu'il eût lu
que nous lisions	que nous ayons lu	que nous lussions	que nous eussions lu
que vous lisiez	que vous ayez lu	que vous lussiez	que vous eussiez lu
qu'ils lisent	qu'ils aient lu	qu'ils lussent	qu'ils eussent lu

Conditionnel

Présent	Passé première forme	Passé deuxième forme
je lirais	j'aurais lu	j'eusse lu
tu lirais	tu aurais lu	tu eusses lu
il lirait	il aurait lu	il eût lu
nous lirions	nous aurions lu	nous eussions lu
vous liriez	vous auriez lu	vous eussiez lu
ils liraient	ils auraient lu	ils eussent lu

Figure 1. Conjugation table of the verb lire 'to read' on le conjugueur (https://leconjugueur.lefigaro.fr/conjugaison/verbe/lire.html, accessed on 20 February 2021).

French verb conjugations are categorized as regular or irregular and grouped according to the form of the infinitive. The relationship between the infinitive and the other forms is usually emphasized in conjugation tables. For example, the very popular tool le conjugueur (https://leconjugueur.lefigaro.fr, accessed on 20 February 2021), edited by the French newspaper Le Figaro, underlines that grouping the verbs according to the infinitive form will facilitate the memorization of the morphological endings[1]. The verbs are distributed into three groups (https://leconjugueur.lefigaro.fr/frlesgroupes.php, accessed on 20 February 2021), the first being those ending in *-er*, except *aller*, the second being those ending in *-ir* for which the present participle ends in *-issant* (like *finir*), and the third group being all other verbs, labeled as "irregular." This third group is again split into four subgroups: verbs ending in *-ir*, verbs ending in *-oir*, and verbs ending in *-re*. The verb *aller* is in a subgroup of its own.

However, contrary to le conjugueur's claim, except for the group of *-er* verbs, the relationship between the infinitive and other forms is unpredictable, even though there are some recurrent patterns, as illustrated in (1) with two irregular verbs.

(1)	Infinitive	Present Singular	2nd Present Plural	Past Participle	Future Tense
	tenir 'hold'	tiens/t	tenez	tenu	tiendrai
	venir 'come'	viens/t	venez	venu	viendrai

The attentive reader will notice that verbs ending in *-ir* appear sometimes as regular (±300 verbs) and sometimes as irregular (±100 verbs). A closer look at verbs in these groups reveals how arbitrary these delimitations can be. As illustrated in Table 1, the number of similarities between many of these verbs is striking. This distinction between regular and irregular verbs ending in *-ir* might be confusing for L2 learners.

Table 1. Comparison of regular and irregular *-ir* verbs.

Regular *-ir* infinitive	2nd present plural	past participle	Irregular *-ir* infinitive	2nd present plural	past participle
asservir 'enslave'	asservissez	asservi	**servir** 'serve'	servez	servi
répartir 'distribute'	répartissez	réparti	**partir** 'leave'	partez	parti
ressortir 'coming from'	ressortissez	ressorti	**ressortir** 'go out again'	ressortez	ressorti

Moreover, from a morphological point of view, the distinction between "regular" and "irregular" is intricate in French. In fact, the morphemes corresponding to a specific tense, for instance *imparfait* or future tense, are the same for all verbs, as shown in Table 2. The irregularity lies in the stem alternation but not in the endings; for a discussion, see (Meunier and Marslen-Wilson 2004, p. 574ff.).

Table 2. Examples of stem alternation and regular endings.

Infinitive	*Imparfait* Stem	and Endings	Future Stem	and Endings
être 'be'	ét-		ser-	
faire 'do'	fais		fer-	
parler 'speak'	parl-	*-ais*	parler-	*-ai*
partir 'leave'	part-	*-ais*	partir-	*-as*
répartir 'distribute'	répartiss-	*-ait*	répartir-	*-a*
vendre 'sell'	vend-	*-ions*	vendr-	*-ons*
prendre 'take'	pren-	*-iez*	prendr-	*-ez*
voir 'see'	voy-	*-aient*	verr-	*-ont*
boire 'drink'	buv-		boir-	

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[1] Les groupes sont un bon moyen de catégoriser les verbes pour retenir plus facilement leurs terminaisons.

From a usage-based approach, "regularity" has to do with the number of items participating in a similar schema; in other words, with the kind and strength of frequency that applies to the verb. From this point of view, there are three main groups of verbs in French:

1. The four very irregular and frequent verbs *être* 'be,' *avoir* 'have,' *aller* 'go,' and *faire* 'do.' These verbs are characterized by a high token frequency. Their paradigms consist of many suppletive forms but also of some regularities (see Table 2). They are all used as auxiliaries (*faire* in very specific contexts as in *se faire couper les cheveux* 'get a haircut'), and all of them are semantically very open or at least polysemous (for example the usage of *aller* as 'go' and 'be [fine]'). Constructions with *faire* can describe most actions and replace action verbs (*faire un plongeon* 'take a dive,' *plonger* 'dive').

2. The regular verbs ending in *-er* in the infinitive (*parler* 'speak'). This is the most regular and productive verb conjugation. Its pattern is very high in type frequency: 90% of French verbs follow this pattern (more than 6000 verbs according to le conjugueur). The domination of these verbs in the French verbal system has many implications for the learners' interlanguage, as we will see in the next section.

3. The other verbs. As discussed above, there are patterns of regularity in this group of verbs; however, compared to the pattern of the *-er* verbs, they are quite low in type frequency. This makes most of these verbs generally low in both type and token frequency.

In order to discuss the role of salience and form–function association in the acquisition of L2 French verb morphology, it is important to stress the significant differences between the number of different forms in written and spoken modes. For example, for the verb *lire* in present tense singular (Figure 1), the forms are distinguished orthographically as *lis* and *lit*, but they are homophonous in spoken language and both pronounced /li/. In French, the relationship between sounds and letters is opaque. Written and spoken French can practically be considered as two different languages. This difference creates difficulties for all learners of French, both L1 (written) and L2 alike; for example, see (Fayol and Jaffré 2008).

French spoken verb morphology is strongly characterized by homophony. Homophony is especially frequent in the *-er* verbs and affects the most basic forms used in spoken French, as illustrated in Table 3 with the example of the verb *donner* 'to give.' For these verbs, there is one form for the present tense singular and 3rd person plural and one form for the present tense 2nd person plural, the infinitive, the past participle, and the *imparfait* (imperfective past) (Walter 1982 for the similarity between [e] and [ɛ]). Hence, the non-finite forms and two past tense forms are consistently expressed with a form ending in [e]. In other words, there are two main forms for the regular verbs: one for the present tense (which is also the base form, on which the other forms are constructed) and one for the non-present tense. It is important to recall that the use of the 1st person plural is quite rare outside the French language classroom and usually replaced by the impersonal 3rd person singular *on* 'one' (Giroud and Surcouf 2016). The opposition between present versus non-present tense could be so salient both semantically and phonologically that it overshadows other phonologically perceivable oppositions up to an advanced level of proficiency.

For comparison, Table 3 also presents the forms for the irregular verb *lire* 'read.' Unlike the regular *-er* verbs, the differences between the various forms of an irregular verb are phonologically distinctive, and, as already mentioned, the relationship between the infinitive and the other forms is unpredictable for most of the irregular verbs.

Another important difference between regular and irregular verbs is that the 3rd person plural is distinct from the 3rd person singular in many irregular verbs. However, the homophony between the 2nd person plural and the *imparfait* applies to all verbs except a few (namely, *être* 'be,' *dire* 'say,' and *faire* 'do').

Table 3. Main forms in spoken and written French with the examples of *donner* 'give' and *lire* 'read.'

Tense	Regular *-er* Verbs /Spoken/ and *Written* Forms	Irregular Verbs (Example) /Spoken/ and *Written* Forms
present singular *je, tu, il/elle, on* 'I, you, s/he, one'	/dɔn/ *donne/s/nt* 'give(s)'	/li/ *lis/lit* 'read(s)'
present 3rd plural *ils/elles* 'they'		/liz/ *lisent* 'read'
present 2nd plural *vous* 'you'	/dɔne/ *donnez* 'give'	/lize/ *lisez* 'read'
infinitive	/dɔne/ *donner* 'to give'	/liʁ/ *lire* 'to read'
past participle	/dɔne/ *donné* '(have) given'	/ly/ *lu* '(have) read'
imparfait	/dɔne/ /dɔnɛ/ *donnais* . . . 'gave'	/lize/ /lizɛ/ *lisais* . . . 'read'

In conclusion, the strong pattern of the regular *-er* verbs meets all the criteria as a candidate for a default pattern that might be used on other less frequent patterns (and verbs): the pattern has a high type frequency and the difference between the main present tense forms and the other forms is highly salient as well as consistent and reliable on the level of form–function associations. How this morphological system impacts the development of L2 French verb morphology is the subject of the next section.

4. Effects of French Input and the Development of L2 French Verb Morphology

This section is devoted to a review of studies that have addressed the influence of input on different aspects of the French morphological system in L2 acquisition: (1) the use of default forms in the present tense and infinitive contexts, (2) the development of the 3rd person plural, and (3) the development of the past tense.

4.1. Default Forms in L2 Spoken French

As described in the previous section, the pattern of *-er* verbs consists of two main forms, a 'short' form corresponding to the present tense and a polyfunctional 'long' form resembling the infinitive ([e] form). Example (2) (Thomas 2009, p. 12) illustrates the correct and incorrect use of the two forms, both in a present tense context (2a and c) and in an infinitive context (2b and d). The use of these forms as default forms in L2 French (spoken) production has been reported in many studies (e.g., Bartning and Schlyter 2004; Perdue 1993; Prévost 2009; Prévost and White 2000). They indicate that L2 learners' production is characterized by variability.

(2)	a.	*elle mange*
		'she eats' present tense context—correct
	b.	*les hommes va parle*
		'the men will speaks' infinitive context—incorrect
	c.	*il dans[e]*
		'he dance' present tense context—incorrect
	d.	*deux personnes va voyag[e]*
		'two people will travel' infinitive context—correct

In her research on the influence of input in L2 acquisition at beginner/intermediate levels, Thomas (2009) addressed the question whether there is any systematicity in the production of these forms or whether it is arbitrary. She developed two hypotheses that posit a relationship between input and learner production. The first hypothesis was based on a traditional preexisting semantic categories approach in which the lexical aspect of the verbs would influence the input treatment and the learners' production. According to this hypothesis, specific forms are more relevant to the inherent lexical/semantic aspect of the verbs than others (see the *Aspect Hypothesis*, Andersen 2002; Andersen and Shirai 1994). The learners will first produce the forms that correspond to the prototypical lexical aspect

of the verbs: present tense forms for the stative verbs (verbs that describe a state, e.g., *be, live in, like, love*) and past tense forms for the dynamic verbs (verbs that describe an action, e.g., *work, buy, win a race*).

Thomas' second hypothesis was based on a usage-based approach, according to which the learners will produce the most frequent form of a given verb in the input (Bybee 1995, 2008).

The study concentrated on infinitive and present tense for 12 common regular *-er* verbs. The frequency of forms of these verbs in the input was established empirically with data from a range of spoken French corpora that reflected the different kinds of French language to which the learners could be exposed:

1. Data from the French database C-ORAL-ROM (Cresti and Moneglia 2005);
2. Data from adult native speakers of French in conversation with adult classroom learners of L2 French (4 recordings of 60′ each and 25 recordings of 20–30′ each);
3. Thirty-nine recordings of classroom teaching (Flyman Mattsson 2003);
4. One textbook used at beginner level.

The compilation included all the forms presented in Table 3 (above). The results showed a strong overlap between the two hypotheses in the input data. The stative verbs were very frequent in the present tense form, while the dynamic verbs were frequent in the [e] form, an opposition that had previously been documented in most studies on lexical aspect in French (e.g., Labeau 2005). The only way to differentiate between the two hypotheses was found in the dynamic verbs that were equally frequent in both forms in the input data. The predictions from the two hypotheses are presented in Table 4.

Table 4. Predictions for the L2 production in the imitation test in Thomas (2009).

Verbs	Expected form Based on Lexical Aspect	Expected form Based on Input Frequency
Stative verbs frequent in present tense sg and 3rd pl *adorer, penser, habiter, détester, préférer, aimer* *(trouver)*	present tense (short form)	present tense (short form)
Dynamic verbs frequent in both forms *trouver, regarder, parler, manger*	form ending in [e] (long form)	variation (both forms)
frequent in the form ending in [e] *acheter, visiter*		form ending in [e] (long form)

These two hypotheses were tested in an experimental design, including an imitation test. In this test, every verb was presented in the middle of a grammatical sentence, once in the present tense (*parle*) and once in the infinitive (*veut/va parler*). The learners had to listen to the pre-recorded sentence, count from one to ten in French in 4 s (a suppression task to avoid parroting), and then repeat the sentence they had heard. They were encouraged to say all that they remembered, even if it was only part of the sentence that they had heard. The test was administered to 33 Swedish upper secondary school learners of French at beginner-intermediate level.

The results are summarized in Figure 2. The bars show the results for each group of verbs. Overall, the learners produced many more present tense forms (78%) than infinitives (22%), a result that reflects a preference for the former. This massive transformation of the items presented in the infinitive into present tense was not expected and was interpreted as an influence of input, since classroom "beginner talk" is mainly about the here and now.
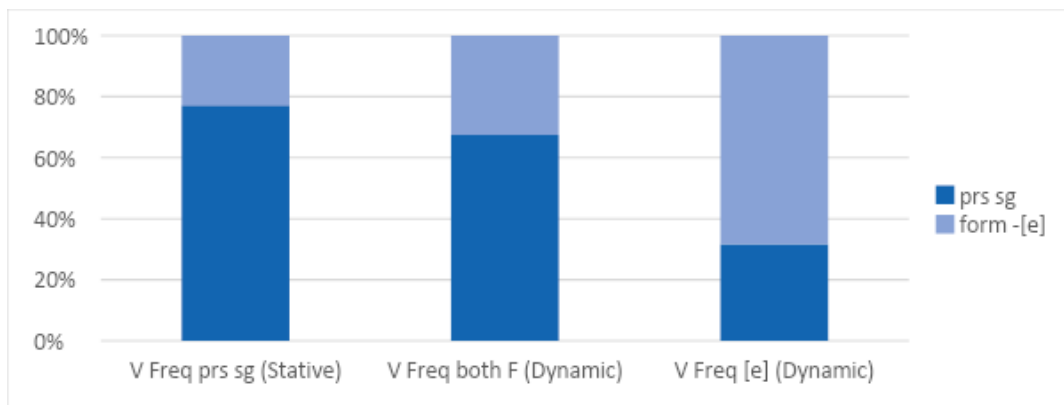
Figure 2. Production of the present tense form (e.g., /paʁl/) and the form ending in [e] in the imitation test within the different groups of verbs. Caption: V: verb; Freq: frequent; prs sg: present singular and 3rd plural; F: forms.

Figure 2 shows that the learners did not simply repeat all the test items. If this were the case, the result would have been 50% for all three groups of verbs[2]. Instead, for the (stative) verbs frequent in the present tense form in the input, the learners produced the present tense form even after a stimulus with a form ending in [e]. This is exemplified in (3): the same learner produced the same form regardless of the form (and the syntactic context) presented in the stimulus. For these verbs, we cannot differentiate the potential effect of lexical aspect or input frequency. The two factors overlap in the input as well as in the L2 learners' production.

(3)	Stimulus	9	**En France**	**Carl**		**habite**	**au bord de la mer.**
			in France	*Carl*		*lives*	*at the seaside*
	P24		A la France	Carl		habite	près de la mer
	Stimulus	10	**En mars**	**Marie**	**veut**	**habiter**	**à Paris.**
			in March	*Marie*	*wants*	*to live*	*in Paris*
	P24		A mars	Carl		habite	à Paris

Similarly, at the other end of the continuum (the third bar in Figure 2), for the verbs frequent in the [e] form, a form ending in [e] was produced even after a stimulus presented with the present tense form as illustrated in (4). Unlike the transformation into present tense as in (3), where the subject was directly followed by the most frequent form of the verb, resulting in a correct present tense sentence, the absence of the semi-auxiliary in (4) results in an incorrect sentence. This can be seen as confirmation of the hypothesis that L2 learners produce the most accessible form, which corresponds to the most frequent form for a particular verb, regardless of the syntactic context. In other words, although the present tense form resembles a finite form, and the [e] form a non-finite, the status of these forms could be the same: that of a default form. However, for the dynamic verbs frequent in the [e] form, there was again a strong overlap with respect to lexical aspect and the frequency of forms in the input and in the L2 learners' production.

(4)	Stimulus	2	**Aujourd'hui**	**Christine**	**veut**	**acheter**	**une robe.**
			today	*Christine*	*wants*	*to buy*	*a dress*
	P16		Aujourd'hui	Marie		achetE	une robe
	Stimulus	1	**Au supermarché**	**Carl**		**achète**	**un melon.**
			at the supermarket	*Carl*		*buys*	*a melon*
	P16		A supermarché	Carl		achetE	un melon

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2   Since the research question was concerned with the form produced regardless of the syntactic context, the syntactic match with the form was disregarded. Nevertheless, 87% of the present tense forms were produced in the syntactic context for such a form as opposed to only 37% of the forms in [e].

Finally, the results for the dynamic verbs frequent in both forms in the input show that the verbs were not produced according to what was expected by the hypothesis based on the verbs' lexical aspect. Instead, the learners still produced these verbs more often in the present tense form, though to a lesser extent than with the stative verbs frequent in the present tense form in the input. Example (5) illustrates the variation in the production of these verbs. It is interesting to observe that the verbs with more variation in the input were also produced with more variation by the learners, this time not only on a form level but also on a syntax level. Unlike the two other kinds of verbs, the semi-auxiliary (*veut/va*) was sometimes produced, resulting in mismatches on the surface form level.

(5)	Stimulus	14	**Maintenant**	**Marie**	**veut**	**parler**	**avec son chef.**
			now	*Marie*	*wants*	*to speak*	*with her boss*
	P26		Maintenant	Marie	va	parle	avec son chef
	P08		Maintenant	Carine	va	parler	avec son chef
	Stimulus	**13**	**Au travail**	**Carl**		**parle**	**avec une collègue**
			at work	*Carl*		*speaks*	*with a colleague*
	P26		Au travail	Carl		parle	au une collègue
	P08		Au travail	Carl		parle	avec une collègue

Overall, the results of this experimental study show an influence of the frequency of the surface forms in the input on the learners' production of the verb forms in this task, regardless of the syntactic context. A clear limitation of this study is that it only considered the group of regular *-er* verbs and, consequently, the influence of two forms.

4.2. The Development of Third Person Plural Forms

As mentioned in Section 3, there is no audible difference between the 3rd person singular and plural for the *-er* verbs, except in the cases where a verb beginning with a vowel is preceded by a subject (typically *ils/elles*) where the liaison between the subject and the verb is obligatory. However, the difference between 3rd singular and plural is visible in the written forms, with an *-nt* at the end of the form (*il parle* 'he speaks' and *ils parlent* 'they speak,' but both are pronounced /paʁl/). The difference between the singular and plural forms is also audible in the four frequent and irregular verbs *être* 'be,' *avoir* 'have,' *aller* 'go,' and *faire* 'do,' for which two completely different suppletive forms are used (*est–sont* 'is–are,' *a–ont* 'has–have,' *va–vont* 'goes–go,' and *fait–font* 'does–do'). Finally, there is also a phonological difference between 3rd singular and plural for the irregular verbs with stem alternation (*veut–veulent* 'wants–want'). However, this difference is often phonologically not salient. In summary, there are four patterns/schemas of relationship between 3rd person singular and plural in spoken French as presented in (6) (Ågren 2017, p. 9).

1. Identical: *il danse* 'he dances'; *ils dansent* 'they dance'; *il voit* 'he sees'; *ils voient* 'they see' (*-er* verbs and some irregular verbs)
2. Perceivable difference through a liaison in the plural: *il arrive* 'he arrives'; *ils arrivent* 'they arrive'
3. Suppletive forms: only the four highly frequent verbs (*être, avoir, faire,* and *aller*)
4. Irregular verbs with stem alternation: *il prend* 'he takes'; *ils prennent* 'they take'; *il dit* 'he says'; *ils disent* 'they say.'

In her experimental study, Ågren (2017) addressed the question of the role of input frequency on the production of subject–verb agreement in 3rd person singular and plural. The study concentrated on six verbs with stem alternation (pattern 4 above). The frequency of the two verb forms was checked in two reference corpora of spoken French: in the corpus of French phonology (https://www.projet-pfc.net, accessed on 20 February 2021) and in C-ORAL-ROM (Cresti and Moneglia 2005), as well as in the corpus of written language Lexique 3 (http://www.lexique.org, accessed on 20 February 2021). For all verbs, it appeared that the 3rd person singular was much more frequent than the 3rd person plural (Ågren 2017, p. 13). The difference was stronger for the verbs with higher token frequency; for these verbs, the proportion of 3rd person plural was around 10% (e.g., *dire* 'say' and

pouvoir 'can'), while for the less frequent verbs, it could be up to 27% (e.g., *comprendre* 'understand' and *mettre* 'put'). In other words, according to the data from these corpora, the 3rd person plural is characterized by low frequency in both spoken and written French.

The results of the study are based on an imitation test taken by 42 Swedish university student learners of French at different CEFR levels (10 at A1, 10 at A2, 11 at B1, and 11 at B2 according to a Dialang test https://dialangweb.lancaster.ac.uk, accessed on 20 February 2021) and by a control group of 21 francophone exchange students. The six irregular verbs were presented four times each, twice in singular and twice in plural, once with subject–verb agreement (*la fille boit* 'the girl drinks,' *les amis boivent* 'the friends drink') and once with a subject–verb mismatch (*la fille boivent* 'the girl drink,' *les amis boit* 'the friends drinks'). Generally, the singular form was repeated more often by the learners, both in the grammatical and the agrammatical context, which reflects the frequency of the two forms in French and suggests that the 3rd person singular is used as default. Additionally, the number of correct imitations in the matching contexts for both forms increased with higher levels of proficiency. The learners with higher CEFR levels in French had more success, which is also an input effect in the sense that less salient phenomena need more experience in terms of exposure and practice in order to be learned (Ågren et al. 2014). However, there was no correlation between the token frequency of the different verbs and the level of correct imitation. In conclusion, the results suggest that learners overuse the pattern of the regular *-er* verbs on other verbs and that there is a tendency to use only one form for a given verb. This result could also be due to an influence of the learners' L1 (Swedish), which has only one form for the present tense for each verb (even the most frequent ones).

The absence of correlation with the token frequency of each specific verb could also be due to problems with the representativeness of the chosen corpora as input to the learners. This is a major issue in studies looking at the influence of input. The direct relationship between the approximate input as computed with corpora and the effective input to the learners is difficult to establish; for a discussion, see (Thomas and Ädel 2021). Indeed, it is probably an impossible task for adult learners of a language such as French and at a level other than beginner. In fact, to study the close relationship between input and output, either studies using artificial language, for example (Madlener 2018), or first exposure studies (Dimroth 2018) are necessary.

Another issue is the level of salience of the contrast between the 3rd person singular and plural forms. With subject pronouns, the contrast *il/ils* 'he/they-masc' and *elle/elles* 'she/they-fem' is only audible when the verb begins with a vowel. With nominal subjects, the contrast is with the article, which is well contrasted for the indefinite article *un-une* 'a' vs. *des* 'several' but less so for the definite article *le* vs. *les* because of the difficulty in perceiving the difference between [ə] and [e]. Given the low number of verbs with stem alternation and the very high type frequency of the regular *-er* verbs, the pattern of the *-er* verbs probably has an overshadowing effect (Ellis 2006) on other verbs (except the four highly frequent verbs). Accordingly, other verb patterns only become available to attention after a longer experience with the French type frequency effect, see (Bybee 2008). Given the opaque relationship between spoken and written language, mastery of the written forms is not necessarily helpful for oral production; the L1 phonological system could lead to misspelling (Prévost 2009).

In another study, Ågren and van de Ågren and Weijer (2013) compared the production of the same phenomenon by children aged five to six and nine to ten years old with French as their only or as one of their first language(s), or as their L2. The children performed an oral and written narrative production task where the task was the same in both modes.

The results for the oral production showed that none of the children in the study had difficulty with subject–verb agreement in singular contexts. However, all the children overused singular forms in plural contexts, thus employing the pattern of the *-er* verbs on other verbs, except for the highly frequent verbs *être* 'be' and *avoir* 'have,' which were produced correctly. As in the 2017 study, the more experience the learners had with the target language, the more the plural forms were produced correctly. In other words, the L1

children were more often correct than the bilingual children, who performed better than the L2 learners. Finally, the older children in each group performed better than the younger ones (Ågren and Weijer 2013, pp. 326, 328).

The results for the written production showed a significant difference only between the L1 and the L2 children, but not between the L1 and the bilinguals, nor between the bilinguals and the L2 children. All of the children produced fewer errors for the singular than for the plural forms and also fewer errors for the verbs where there is an audible difference between 3rd person singular and plural (patterns 3 and 4 in example (6) above). In other words, the plural marker *-nt* was more often omitted for the regular *-er* verbs than for the verbs with stem alternation.

The authors argue that the differing results between oral and written production are not due to frequency patterns but are inherent to the absence/presence of phonological cues between the two forms, meaning that the verbs with an audible cue for the difference between singular and plural are produced more correctly in terms of subject–verb agreement than those with silent morphology. In other words, frequency alone is not enough to explain developmental challenges in L2 acquisition; rather, other factors, such as perceptual salience, also play a role. In terms of input, the authors conclude that "a rich and continuous exposure to spoken and written language is a prerequisite for a successful acquisition of these complex aspects of the French language" (Ågren and Weijer 2013, p. 332).

4.3. The Development of Past Tense

The presentation of the French verb morphology in Section 3 underlined the fact that the two past tense forms are homophonous for the *-er* verbs. This means that the form–function association specific to the two past tense forms is phonologically not salient for 90% of French verbs. This suggests that the learners might need more input with irregular verbs in order to notice the specific functions of the two past tense forms.

Earlier research on the L2 learning of French at different ages has shown that the development of French past tense is rather slow in the sense that there are still difficulties even at advanced levels of proficiency (Bartning and Schlyter 2004; Kihlstedt and Schlyter 2009). L2 learners of French mainly use the *passé composé* or a bare past participle and the present tense. The *imparfait* is mainly restricted to *était* 'was' and *avait* 'had,' which are the two verbs most frequently used in this tense in French (Kihlstedt and Schlyter 2009).

In their studies, Nicoladis et al. (2007) and Paradis et al. (2011) examined French regular and irregular verbs separately. The results show that both French monolingual and bilingual children have more difficulties in producing the correct form of the past participle for irregular than for regular verbs. For irregular verbs, the past participle is often replaced by the infinitive or by a form inspired by the homophonous form of the *-er* verbs. In these studies, the correct production of irregular verbs was correlated to the amount of exposure to French, with more exposure giving better results, suggesting that the frequency of forms in the input may play an important role in the acquisition of verb morphology.

A study with similar results has been conducted with L2 children (Thomas 2014a). The production of French verbs in the past tense by children who were at beginner to intermediate levels was correct in more than 90% of the cases for the regular verbs (11 verbs), a proportion that was reached for only 2 of the 10 irregular verbs studied (*partir* 'leave' and *venir* 'come'). These results suggest that input frequency plays a role in the production of the past tense. The high proportion of correct past tense marking for regular verbs by L2 children, even with verbs frequent in present tense, can be explained as an effect of type frequency. The systematic association between past tense and a form in [e] (see Table 3) in regular verbs is a pattern that L2 children seem to grasp quickly. On the other hand, correct past tense marking is more difficult with irregular verbs, since the learners are dependent on token frequency; that is, on the number of times they encounter a specific form.

The study by Nicoladis and colleagues (2007) is particularly interesting because they empirically established the frequency of English and French past tense in native

spoken and written data. They counted the number of different verbs (types) and of tokens in production data from two L1 French speaking children in the CHILDES corpus (MacWhinney 2002): Philippe and Grégoire. They randomly chose three sessions from the data and counted the number of past tense verbs used by the adults in the presence of the children (Nicoladis et al. 2007, p. 240). The results showed that regular verbs constituted the majority of verbs both in the number of different verbs and of tokens in the input to both French children. They then compared these data with data from two cartoons, and again, found that French regular verbs are "on average, very high in token frequency relative to English verbs and slightly higher in type frequency" (Nicoladis et al. 2007, p. 241). Again, French regular verbs were more frequent than irregular verbs, both in tokens and in types. This means not only that the *-er* verb pattern is dominant but that these regular verbs are among the most frequently used verbs in French.

Another interesting question is the frequency of past tense forms compared to other common forms in spoken French. Collins et al. (2009), for example, showed that the English regular past tense was quite infrequent in the input provided to the learners in the study. In a small-scale study, Thomas (2014b) examined the frequency of 15 common regular verbs and 15 common irregular verbs in a range of corpora that could be used as a proxy for L2 learner input. Except for the data from the textbook, the same corpora were used as in Thomas (2009) but with the addition of the following:

- The adult interlocutors (MOT, CHR, FAT, MAD) in interaction with the L1 child Philippe aged from 2.1 to 3.3 years (corpus Leveille, 26 recordings) and the L1 child Grégoire aged from 1.9 to 2.5 years (corpus Champaud, 33 recordings) in CHILDES (MacWhinney 2002).
- The adult interlocutors in conversation with five children learning L2 French in immersion in Sweden (Ågren et al. 2014), 27 recordings of 20–30′ each.

Again, the compilation included all the forms presented in Table 3 above. The results are illustrated in Table 5.

Table 5. Distribution of the most frequent forms in 15 regular and 15 irregular verbs in five corpora of spoken French.

Context	Regular *-er* Verbs Proportion (Tokens)	Irregular Verbs Proportion (Tokens)
Present sg+3pl	48% (2950)	60% (7124)
Infinitive	23% (1445)	16% (1922)
Present 2nd plural	5% (324)	5% (542)
imparfait	6% (372)	5% (630)
Past participle	18% (1110)	14% (1655)
Sum forms ending in [e] (grey zone)	*52% (3251)*	*10% (1172)*
Sum	**6201**	**11,873**

The results of this analysis show that the present tense (singular and 3rd person plural) is the most frequent tense for both kinds of verbs. It also appears that the *imparfait* is very rare (5–6%) and that the past participle is less frequent (14–18%) than the infinitive (around 16–23%). This suggests that the past tense forms are less available in the input to learners than the other forms. It is also interesting to note that there are proportionally more infinitives and past participles for regular verbs than for irregular verbs. However, given the homophony between the two forms for the *-er* verbs, the relationship between form and function is not made salient with these verbs. In summary, the input to the learner, as measured here, is probably insufficient for the learners to notice the differences between the homophonous forms for the regular *-er* verbs. The combination of the variation of different forms for irregular verbs, making each specific form infrequent, and of the dominance of the present tense for these verbs probably contributes to the slow development of L2 French verb morphology.

5. Conclusions

The aim of this article was to present the French verb morphological system in terms of frequency, salience, and form–function association and to show its implications for L2 input processing. This article also presented a review of studies that examined the relationship between input characteristics and the L2 development of verb morphology. The studies presented suggest an influence of input on L2 production and confirm that one of the difficulties inherent in learning French can be related to the very high type frequency of the regular *-er* verbs. Moreover, unlike other languages, such as English, the *-er* verbs are also frequent in tokens. Thus, the different forms of irregular verbs (other than the four most frequent verbs) are scarce in the learners' input. Additionally, it seems that irregular verbs are mainly used in the present tense, which adds to the low level of salience of the two past tense forms in the input. To a learner, oral French input suggests two frequent forms: a singular present tense form on the one hand, and a multifunctional form ending in [e] on the other hand. One avenue of research worth pursuing would be to study the effect of an input enriched with "common" irregular verbs in order to see whether such input could facilitate the learning of French verb morphology.

This article focused on input characteristics as studied in corpora and on the influence of input on the acquisition of L2 French. However, there are many different ways of investigating the influence of input, as well as other factors that play a role in L2 language acquisition. For example, the study of Ågren et al. (2014) showed that there is a combined effect of age of onset, the input situation of the learners in terms of active access to the target language, and the linguistic characteristics of the morphosyntactic phenomena under investigation. Additionally, as underlined by Howard (2011), input is not a monolithic entity but consists of several layers. Important factors include the role of implicit and explicit approaches to L2 teaching and the context of learning, such as traditional classroom teaching, immersive approaches, or "in the wild" (see Cadierno and Eskildsen 2015).

Recently, the issue of input in French L2 has grown in importance in the field of French language teaching. The role of corpora of authentic language as input to L2 learners is a current and dynamic trend of research. According to Boulton (2017), early results show a positive effect of this kind of input on the development of (academic) written language as well as on a better comprehension of the target language (for example, on the use of frequent discourse markers). However, we know very little about the effect of corpora on the development of oral production in the long run. Finally, input quality has mainly been conceptualized/operationalized as the quality of the environment, as in the work of Paradis and colleagues, but there are very few attempts at discussing the quality of input material, for example in obligatory school settings (see, e.g., Kasprowicz and Marsden 2018; Sakata 2019).

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References

Ågren, Malin. 2017. Étude expérimentale sur le traitement de l'accord sujet-verbe en nombre en FLE. *Bulletin suisse de Linguistique appliquée* 105: 69–86.

Ågren, Malin, and Joost van de Weijer. 2013. Input Frequency and the Acquisition of Subject-Verb Agreement in Number in Spoken and Written French. *Journal of French Language Studies* 23: 311–33. [CrossRef]

Ågren, Malin, Jonas Granfeldt, and Anita Thomas. 2014. Combined Effects of Age of Onset and Input on the Development of Different Grammatical Structures. A Study of Simultaneous and Successive Bilingual Acquisition of French. *Linguistic Approaches to Bilingualism* 4: 462–93. [CrossRef]

Andersen, Roger W. 2002. The Dimensions of "Pastness". In *The L2 Acquisition of Tense-Aspect Morphology*. Edited by R. Salaberry and Yasuhiro Shirai. Amsterdam and Philadelphia: John Benjamins, pp. 70–105.

Andersen, Roger W., and Yasuhiro Shirai. 1994. 'Discourse Motivations for Some Cognitive Acquisition Principles'. *Studies in Second Language Acquisition* 16: 133–56. [CrossRef]

Barlow, Michael, and Suzanne Kemmer. 2000. Introduction: A Usage-Based Conception of Language. In *Usage Based Models of Language*. Edited by Michael Barlow and Suzanne Kemmer. Stanford: CSLI Publications, pp. vii–xxviii.

Bartning, Inge, and Suzanne Schlyter. 2004. Itinéraires Acquisitionnels et Stades de Développement En Français L2. *Journal of French Language Studies* 14: 281–99. [CrossRef]

Bartning, Inge, Fanny Forsberg, and Victorine Hancock. 2009. Resources and Obstacles in Very Advanced L2 French: Formulaic Language, Information Structure and Morphosyntax. *EUROSLA Yearbook* 9: 185–211. [CrossRef]

Behrens, Heike, and Stefan Pfänder. 2016. *Experience Counts Frequency Effects in Language Acquisition, Language Change, and Language Processing*. Berlin: De Gruyter.

Boulton, Alex. 2017. Corpora in Language Teaching and Learning. *Language Teaching* 50: 483–506. [CrossRef]

Bybee, Joan L. 1995. Regular Morphology and the Lexicon. *Language and Cognitive Processes* 10: 425–55. [CrossRef]

Bybee, Joan L. 2008. Usage-Based Grammar and Second Language Acquisition. In *Handbook of Cognitive Linguistics and Second Language Acquisition*. Edited by Peter Robinson and Nick C. Ellis. New York: Routledge, pp. 216–36.

Cadierno, Teresa, and Søren Wind Eskildsen, eds. 2015. *Usage-Based Perspectives on Second Language Learning*. Applications of Cognitive Linguistics 30. Berlin and Boston: De Gruyter Mouton.

Collins, Laura, Pavel Trofimovich, Joanna White, Walcir Cardoso, and Marlise Horst. 2009. 'Some Input on the Easy/Difficult Grammar Question: An Empirical Study'. *Modern Language Journal* 93: 336–53. [CrossRef]

Cresti, Emanuela, and Massimo Moneglia. 2005. *C-ORAL-ROM: Integrated Reference Corpora for Spoken Romance Languages*. Amsterdam: John Benjamins.

Dimroth, Christine. 2018. 'Beyond Statistical Learning: Communication Principles and Language Internal Factors Shape Grammar in Child and Adult Beginners Learning Polish Through Controlled Exposure'. *Language Learning* 68: 863–905. [CrossRef]

Ellis, Nick C. 2006. Selective Attention and Transfer Phenomena in L2 Acquisition: Contingency, Cue Competition, Salience, Interference, Overshadowing, Blocking, and Perceptual Learning. *Applied Linguistics* 27: 164–94. [CrossRef]

Ellis, Nick C., Ute Römer, and Matthew Brook O'Donnell. 2016. *Usage-Based Approaches to Language Acquisition and Processing: Cognitive and Corpus Investigations of Construction Grammar*. Chichester: Wiley.

Fayol, Michel, and Jean-Pierre Jaffré. 2008. *Orthographier*. Paris: Presses Universitaires de France.

Flyman Mattsson, Anna. 2003. Teaching, Learning, and Student Ouput. A Study of French in the Classroom. Ph.D. Thesis, Lund University, Lund, Sweden.

Gass, Susan M. 2015. Comprehensible Input and Output in Classroom Interaction. In *The Handbook of Classroom Discourse and Interaction*. Edited by Numa Markee. Chichester: John Wiley & Sons Inc, pp. 182–97.

Giroud, Anick, and Christian Surcouf. 2016. De «Pierre, combien de membres avez-vous?» à «Nous nous appelons Marc et Christian»: Réflexions autour de l'authenticité dans les documents oraux des manuels de FLE pour débutants. *SHS Web of Conferences* 27: 07017. [CrossRef]

Goldschneider, Jennifer M., and Robert M. DeKeyser. 2001. Explaining the "Natural Order of L2 Morpheme Acquisition" in English: A Meta-Analysis of Multiple Determinants. *Language Learning* 51: 1–50. [CrossRef]

Howard, Martin. 2011. Input Perspectives on the Role of Learning Context in Second Language Acquisition. An Introduction to the Special Issue. *International Review of Applied Linguistics in Language Teaching* 49: 71–82. [CrossRef]

Kasprowicz, Rowena, and Emma Marsden. 2018. Towards Ecological Validity in Research into Input-Based Practice: Form Spotting Can Be as Beneficial as Form-Meaning Practice. *Applied Linguistics* 39: 886–911. [CrossRef]

Kihlstedt, Maria, and Suzanne Schlyter. 2009. Emploi de La Morphologie Temporelle En Français L2 : Étude Comparative Auprès d'enfants Monolingues et Bilingues de 8 à 9 Ans. *Acquisition et Interaction En Langue Étrangère AILE* 1: 89–115. [CrossRef]

Labeau, Emmanuelle. 2005. Beyond the Aspect Hypothesis: Tense–Aspect Development in Advanced L2 French. *EUROSLA Yearbook* 5: 77–101. [CrossRef]

MacWhinney, Brian. 2002. *The CHILDES Project: Tools for Analyzing Talk*. Mahwah: Lawrence Erlbaum Associates.

Madlener, Karin. 2018. Do Findings from Artificial Language Learning Generalize to Second Language Classrooms? In *Usage-Inspired L2 Instruction. Researched Pedagogy*. Edited by Andrea E. Tyler, Lourdes Ortega, Mariko Uno and Hae In Park. Amsterdam and Philadelphia: John Benjamins, pp. 211–34.

Meunier, Fanny, and William Marslen-Wilson. 2004. Regularity and Irregularity in Frenchverbal Inflection. *Language and Cognitive Processes* 19: 561–80. [CrossRef]

Nicoladis, Elena, Andrea Palmer, and Paula Marentette. 2007. The Role of Type and Token Frequency in Using Past Tense Morphemes Correctly. *Developmental Science* 10: 237–54. [CrossRef] [PubMed]

Paradis, Johanne. 2010. Bilingual Children's Acquisition of English Verb Morphology: Effects of Language Exposure, Structure Complexity, and Task Type. *Language Learning* 60: 651–80. [CrossRef]

Paradis, Johanne, Elena Nicoladis, Martha Crago, and Fred Genesee. 2011. Bilingual Children's Acquisition of the Past Tense: A Usage-Based Approach. *Journal of Child Language* 38: 554–78. [CrossRef]

Perdue, Clive, ed. 1993. *Adult Language Acquisition: Cross-Linguistic Perspectives. Volume 2. The Results*. Cambridge: Cambridge University Press.

Prévost, Philippe. 2009. The Acquisition of French. In *The Development of Inflectional Morphology and Syntax in L1 Acquisition, Bilingualism, and L2 Acquisition*. Amsterdam: John Benjamins.

Prévost, Philippe, and Lydia White. 2000. Missing Surface Inflection or Impairment in Second Language Acquisition? Evidence from Tense and Agreement. *Second Language Research* 16: 103–33. [CrossRef]

Sakata, Naoki. 2019. Profiling Vocabulary for Proficiency Development: Effects of Input and General Frequencies on L2 Learning. *System* 87: 102167. [CrossRef]

Schmidt, Richard. 2001. Attention. In *Cognition and Second Language Instruction*. Edited by Peter Robinson. Cambridge: Cambridge University Press, pp. 3–32.

Thomas, Anita. 2009. Les Apprenants Parlent-Ils à l'infinitif? Influence de l'input Sur La Production Des Verbes Par Des Apprenants Adultes Du Français. Études romanes de Lund 87. Lund: Lund University (Sweden). Available online: http://lup.lub.lu.se/search/ws/files/5369358/1473802.pdf (accessed on 20 February 2021).

Thomas, Anita. 2014a. C'est La Faute de l'input! Fréquence Des Formes et Biais Distributionnels. Presented at the The Expression of Temporality by L2 Learners of French and English, Acquisition of Time, Aspect, Modality, Montpellier, France, May 22–24.

Thomas, Anita. 2014b. Le Rôle de l'Aspect Lexical et de la Fréquence des Formes dans l'Input sur la Production des Formes du Passé par des Enfants Apprenants du Français L2 en Début d'Acquisition. *The Canadian Modern Language Review/La Revue Canadienne Des Langues Vivantes* 70: 1–27. [CrossRef]

Thomas, Anita, and Annelie Ädel. 2021. Input. In *The Routledge Handbook of Second Language Acquisition and Corpor*. Edited by Nicole Tracy-Ventura and Magali Paquot. New York: Routledge, pp. 267–79.

Walter, Henriette. 1982. *Enquête Phonologique et Variétés Régionales Du Français*. Paris: Presses Universitaires de France.

Article

How the CEFR Is Impacting French-as-a-Second-Language in Ontario, Canada: Teachers' Self-Reported Instructional Practices and Students' Proficiency Exam Results

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Abstract: This exploratory article describes (1) the self-reported instructional practices of a group of 103 Kindergarten to Grade 12 French-as-a-second-language (FSL) teachers from school boards across Ontario, Canada before and after intensive and extensive professional learning about the Common European Framework of Reference (CEFR) and (2) the areas of strength and opportunities for improvement in the FSL proficiency of 434 Grade 12 students from school boards across Ontario in their final year of study, as measured through their outcomes on the Diplôme d'études en langue française (the FSL proficiency exam aligned with the CEFR). In looking across the findings from these early-CEFR-adopter teachers and these highly-motivated students at the end of their FSL studies, the article offers a window onto how the CEFR is impacting the local landscape of FSL education in the province.

1. Introduction

Over the past four decades, French-as-a-second-language (FSL) education in Ontario, Canada has undergone significant changes, with the grammar-based general program descriptions of the 1980s (Ontario Ministry of Education 1980) being replaced by ever-more-elaborate grade- and program-specific curriculum documents. By the late 1990s/early 2000s, requirements for assessment of student achievement had moved from the evaluation of discrete skills to performance-based achievement (Ontario Ministry of Education 1998, 1999, 2000, 2001). For example, the Grade 11 and 12 document (for students aged 16–18 years) for Core French courses (the most-common mode of FSL program delivery in Ontario in which students learn French as a subject) aimed "to provide students with fundamental communication skills in French and an understanding of the nature of the language and its culture" (Ontario Ministry of Education 2000, p. 2). The purpose of the program at that time was to develop oral communication, reading, and writing skills "using a thematic approach" which would provide a variety of contexts for language learning (Ontario Ministry of Education 2000, p. 4). While the guidelines stressed the consistent use of French in the classroom both by students and the teacher, the focus of the learning was also tied to the mastery of a "range of specific language structures" and vocabulary determined by the themes. In the Core French curriculum document for Grades 9 and 10 (for students aged 14–16 years), constant review and re-use of these structures and vocabulary were seen as "essential and natural in language study" and aimed to provide students with the base from which they could build their language capacity "so that they can apply their knowledge of French in situations that are meaningful to them" (Ontario

Ministry of Education 1999, p. 4). Expectations of the Core French program under these guidelines also included the reading of French literature and an integrated study of the culture of French-language regions. The documents stressed the link between language and culture and therefore insisted that cultural studies "be integrated into daily instruction rather than presented in an isolated fashion or on an occasional basis" (Ontario Ministry of Education 2000, p. 4). The Core French documents proposed as its outcomes a level of French that allowed students to exchange information in verbal communication and to demonstrate global understanding of written and audio materials (Ontario Ministry of Education 2000). These guidelines also foregrounded the interconnectivity of the language skills, in that through their oral and reading experiences students would "acquire the skills they need to become good writers who are able to communicate ideas and opinions with ease and clarity" (Ontario Ministry of Education 2000, p. 7). Under these guidelines, learning expectations were enlarged and required students to apply a combination of skills to complete learning activities. This kind of outcomes- or competence-based student learning required teachers to begin to employ a "backward design" (Richards 2013) approach to teaching, which starts with the learning outcome, from which lessons and activities are then constructed to guide students to successful attainment of the expectations (Richards and Rodgers 2014). Successful completion of an FSL course under these guidelines was achieved through the students' demonstrated oral and written literacy in French with a strong emphasis on grammatical accuracy.

In contrast, the expectations of the most-recent Ontario Ministry of Education FSL curriculum guidelines introduced in 2013–2014 (Ontario Ministry of Education 2013, 2014) are informed by the Common European Framework of Reference for Languages (CEFR) (Council of Europe 2001). The CEFR provides "a common basis for the elaboration of language syllabuses, curriculum guidelines, examinations, textbooks, etc." (Council of Europe, p. 1). The CEFR provides a series of standardized descriptors which are used to evaluate competences in foreign languages across five activities (reading, writing, listening, spoken interaction, and spoken production) at six achievement levels. The descriptors for each activity are written as "Can do" statements and include a description of what L2 learners "can do" in the target language at the various levels of proficiency. The CEFR is descriptive as opposed to prescriptive and therefore "the framework is designed to be flexible and practitioners are encouraged to adapt it across various L2 educational contexts" (Faez et al. 2011b, p. 5). Although extensively used in Europe for over two decades, the adaptation of the CEFR to educational contexts in Canada is more recent, with widespread interest only in the last ten years or so (Arnott et al. 2017). CEFR-informed teaching and learning emphasizes language production through interaction (Piccardo 2013). Ontario's current FSL curriculum documents, informed by the CEFR, promote the creation of an action-oriented learning environment in the classroom in which students learn through meaningful interactive tasks based in real-world, everyday contexts. The current documents start from the perspective that "communicative and action-oriented approaches to teaching French put meaningful and authentic communication at the centre of all learning activities" (Ontario Ministry of Education 2014, p. 9). This emphasis on authentic and meaningful interaction shifts the teaching of FSL away from presenting language "as a system of disconnected and isolated components" (Ontario Ministry of Education 2014, p. 9) and aims to focus FSL learners "on what it is they are trying to communicate; what they need others to understand, and why" (Ontario Ministry of Education 2014, p. 7). Under these guidelines, "language instruction must provide significant levels of meaningful communication and interactive feedback in the target language so that students can develop both language proficiency and cultural understanding" (Ontario Ministry of Education 2014, p. 9). The expectations of the current documents stress oral communication (listening and speaking), which is viewed as essential to second language (L2) acquisition. While both the previous and current documents encourage a balance of interconnected skills development (listening, speaking, reading, and writing), the current curriculum focuses classroom practice on the introduction of language that is relevant to

students' communication needs and the practice of language skills through interaction that is meaningful to students. The expectations of the current FSL curriculum signal a shift away from a cognitive-based approach to L2 teaching and learning with a heavy emphasis on the mastery of grade-specific grammatical structures. The goals of the new curriculum reach beyond this cognitive model: while "students need to acquire a strong foundation in the French language" they must "focus on communicating in French" (Ontario Ministry of Education 2014, p. 6). Therefore, FSL teachers find themselves in a position of needing to adopt a socio-culturally-informed approach to teaching in which language is presented in context and through tasks that are interactive and useful to language learners in their everyday lives.

In recent years, the Diplôme d'études en langue française: for beginners and intermediate-level learner*s* (DELF), the FSL proficiency exam aligned with the CEFR, has been administered in many Ontario schools, in partnership with local educational authorities, to Grade 12 students in their final year of schooling as a means to capture their proficiency at the end of their FSL studies. The DELF exam, developed in France by the Centre International d'Études Pédagogiques, tests and certifies the French language skills of non-native speakers through examinations that "have been designed to reflect the principle of action used by the Common European Framework of Reference for Languages, which defines users of a language as social actors who have tasks to perform (that are not only linguistic) in given circumstances, in a given environment and within a specific area of action, which may be personal, public, academic or professional" (Centre International d'Etudes Pédagogiques CIEP 2021). Since 2005, the expectations of the DELF have been consistent with those of the CEFR, and different versions of the exam have been made available around the world in order to meet the needs of a wide range of French-language learners, both school-age and adult (Vandergrift 2012). There are six independent DELF diplomas and each diploma corresponds to one of the six levels of the *CEFR*: A1, A2, B1, B2, C1, and C2. Recognized in 175 countries, the DELF is the official French-language diploma awarded by France's Ministry of National Education to recognize success at the A and B levels. Level A recognizes basic user proficiency, while Level B recognizes independent user ability. At each level, a series of examinations evaluates all four language skills. Each skill is weighted equally for a total of 100 points for each exam. In order to obtain the diploma, a student must obtain at least 50 points, with a minimum of 5 out of 25 for each skill (Vandergrift 2012). As described on DestinatiONtario DestinatiONtario DELF (2021), an information site for Ontario FSL students and their parents that is funded by the Ontario Ministry of Education and the Government of Canada through the Department of Canadian Heritage, when administered in Ontario's school boards, DELF testing procedures are strictly observed to ensure test security and diploma credibility. The teachers from these boards who act as examiners and markers must complete training conducted by authorized instructors and must recertify every five years. The monitoring of exam materials is maintained to ensure that the DELF continues to be recognized by the Association of Language Testers in Europe. Ontario students taking the exam do so above and beyond the requirements of their FSL programs and may choose to attempt any level of the exam they feel is appropriate to their abilities; however, they must decide well beforehand the level of the DELF they wish to challenge.

Set within this context of changing FSL orientations, the present exploratory article describes the self-reported instructional practices of a group of early-CEFR-adopter FSL teachers in Ontario as they think retrospectively about their practices before having engaged in intensive and extensive CEFR-related professional learning experiences versus their reports of their current practices after their professional learning. It also describes the areas of strength and opportunities for proficiency improvement, measured through the CEFR-aligned DELF exam, of a group of highly-motivated Grade 12 Ontario learners who have continued with their learning of French beyond the mandatory years and who are now preparing to graduate from their FSL studies, which were undertaken under the former curriculum guidelines (i.e., before the introduction of the CEFR-informed, task-based

documents). In looking across the findings for these two groups, the article concludes by considering how the CEFR is impacting the local landscape of FSL education in Ontario.

2. Literature Review

The CEFR's action-oriented approach, which emphasizes language production through interaction (Piccardo 2013), lends itself nicely to a task-based approach to language teaching (Little 2006). As Piccardo (2014, p. 28) explains, "the action-oriented task seeks to break down the walls of the classroom and connect it with the outside world." The DELF exam structure also draws heavily on the use of interactive tasks based in real-world, everyday contexts, as do Ontario's current CEFR-informed FSL guidelines, which rely on such meaningful tasks in order to put authentic communication at the center of all classroom teaching and learning. Thus, in looking to understand how the CEFR is impacting Ontario FSL education, it is first important to clarify what is meant by a task-based approach to language teaching, particularly as viewed in an action-oriented approach.

2.1. Task-Based Language Teaching from an Action-Oriented Approach

Task-based language teaching differs from traditional language teaching approaches in that it emphasizes the need to engage learners through tasks where the primary focus is on real-world communication, while still drawing learners' attention to the forms needed to successfully carry out the task (Long 2014). Tasks that use language beyond the confines of the classroom are what Long (1985, p. 89), in his seminal work, referred to as targeted tasks, that is "a piece of work undertaken for oneself or for others [. . .] the hundred and one things people do in everyday life, at work, at play and in between." The goal of such tasks is not linguistic but rather functional and communicative. When such tasks are brought into the classroom, they become pedagogical tasks. As Nunan (2004, p. 4) explains, a pedagogical task is "a piece of classroom work that involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is focused on mobilizing their grammatical knowledge in order to express meaning, and in which the intention is to convey meaning rather than to manipulate form." What is important here is that such tasks require the learner to put into action their grammatical knowledge to accomplish a goal linked to real-world communication. Real-world communication, as explained in Halliday's (1985) influential early work, can serve a number of intertwined purposes, including a transactional or service macrofunction (e.g., exchanging goods and services), an interpersonal or social macrofunction (e.g., socializing with others), and an aesthetic macrofunction (e.g., enjoyment). Indeed, different kinds of tasks create opportunities for different kinds of real-world interactions that foster the processes involved in second language acquisition (Ellis et al. 2019). The kind of real-world communication that tasks envision necessitates the negotiation of meaning and form as interlocutors work to understand each other, express themselves, and accomplish the task at hand. In the classroom, this type of negotiation is achieved through task-based interaction, particularly when accompanied by corrective feedback that draws learners' attention to form as it is used in the service of conveying meaning.

In implementing task-based language teaching, teachers must think carefully about the three task stages outlined by Ellis (2003), namely the pre-task, the main task, and the post-task. The goals of the pre-task, according to Ellis et al. (2019), are to provide learning opportunities that motivate learners by helping them to see the relevance of the task for their own life in the real world and that prepare them for the task by clarifying the procedures and outcomes and by ensuring that they have the schematic and linguistic knowledge necessary to carry out the task. The main task focuses on the successful completion of the task at hand through interaction requiring real-world communication. During the task, teachers encourage learners to focus on form either through pre-emptive interventions (i.e., in anticipation of an error or in response to a form-related request by the learner) or reactively through corrective feedback (i.e., after an error is made). Corrective feedback can be offered by explicit or implicit means and can take the form of recasts, repetition,

elicitation, clarification requests, metalinguistic clues, and explicit correction (Lyster and Ranta 1997). The post-task provides follow-up learning opportunities by having learners repeat the task (exactly, procedurally, or in terms of its content), by addressing linguistic forms that were problematic for learners during the main task, and by having learners reflect on the task and/or their or others' performance (Ellis et al. 2019).

Task-based language teaching is, thus, clearly different from traditional approaches, like those informing Ontario's previous FSL guidelines, that presented language "as a system of disconnected and isolated components" (Ontario Ministry of Education 2014, p. 9). Instead, a task-based approach, as reflected in Ontario's current CEFR-inspired documents, focuses learners "on what it is they are trying to communicate; what they need others to understand, and why" (Ontario Ministry of Education 2014, p. 7). This is all the more so the case when task-based language teaching is set within an action-oriented approach. As Bourguignon (2010, p. 19—translated from French) explains, in an action-oriented approach, the task "puts the learner into action; it places the learner in the action. The task must make the learner more autonomous as a user of the language. The task must enable the learner to line up needs and a goal to be achieved, by selecting relevant knowledge and useful skills." In this way, as Piccardo (2014) explains, the communicative activities required by tasks are not the goal as such, but rather a means to stimulate genuine interaction among students as they act effectively and autonomously to collaboratively map out a way to accomplish the task, all the while making judgements about what the situation requires and what linguistic and non-linguistic tools they possess to do this. The role of the teacher in this process (Piccardo 2014, p. 31) is to help students "with their strategic approach, notably during the stages that involve planning the task, making decisions, realizing which competences to activate, understanding their strengths and weaknesses, conducting searches, and reflecting on what they have learned, what they are able to do, and how they do it." This understanding of task-based language teaching within an action-oriented approach reveals an "open, dynamic, and evolving vision" (Piccardo 2014, p. 31) of the learner as an active social agent.

2.2. The CEFR in Canadian FSL Education

Grounded in an action-oriented approach to task-based language teaching, the CEFR has much to offer Canadian FSL education. Despite this, the adoption of the CEFR in Canada is relatively recent and voluntary (e.g., Arnott et al. 2017; Piccardo et al. 2019) and is making greater inroads in some provinces (e.g., Alberta, British Columbia, Ontario, and New Brunswick) than in others (Arnott 2013)—with education in Canada falling under provincial rather than federal jurisdiction. The impact of the CEFR on FSL education in Ontario and certain other provinces (e.g., Council of Atlantic Ministers of Education and Training 2010; Saskatchewan Ministry of Education 2013) is thanks in large part to the growing popularity of the DELF exam among teachers, students, and parents (Vandergrift 2015). According to Vandergrift (2015), since becoming familiar with the DELF exam, Canadian FSL teachers report having increased the number of interactive speaking activities they use in their teaching and comment on relying more on authentic documents in tasks designed to develop their students' receptive skills. One teacher reported that, in contrast to evaluations focused on assessing the acquisition of isolated grammatical rules, familiarity with the DELF exam has expanded their focus to include the assessment of more contextualized language use. The CEFR's impact on Canadian FSL education is also being felt, according to Moonen et al. (2013), through the use of CEFR-informed textbooks, the adoption of more communicative and competence-based approaches to teaching, a focus on language use and oral skills development, and the encouragement of students to take a more active role in their learning of French.

In two province-wide studies for the Ontario Ministry of Education, Faez et al. (2011a) and Faez et al. (2011b) examined the role and feasibility of implementing the CEFR to improve FSL learning outcomes in the province. FSL teachers in Core French programs and those in French Immersion (i.e., programs where French is the medium of instruction

through which select subjects are taught) were introduced to the CEFR and to CEFR-informed activities and resources. The participating teachers completed pre- and post-study questionnaires examining their attitudes towards and their perceptions of the CEFR's action-oriented approach. The FSL teachers reflected positively on the potential they saw in the CEFR's task-based approach to promote students' competences and engagement. They shared that the more practice they had with a task-based approach, the more comfortable they felt incorporating a focus on form within their communicatively-oriented teaching. Faez and her colleagues also conducted individual and focus group interviews with the teachers three months after having introduced them to the CEFR and related materials. The teachers reported that the CEFR-informed instruction that they were using was enhancing their learners' autonomy, motivation, self-confidence, authentic language use, and oral language abilities. Notwithstanding these positive impressions of the CEFR's potential, the teachers also shared concerns about the difficulty of finding time to implement a CEFR-based approach in their teaching and about a lack of broad understanding of the CEFR.

Mui (2015), in a multi-phased case study that included a reflective-practice journaling component, collaborated over the course of five months with a teacher-participant on self-directed professional development aimed at promoting a better understanding of the key principles of the CEFR and how they could inform their Kindergarten (ages 3–5) and Grade 1 (ages 5–6) FSL teaching in keeping with the new CEFR-informed curriculum. Through their intensive and extensive collaboration, the teacher-participant gained a deeper understanding of the complex framework, suggesting that lengthy professional development is a valuable approach that can help teachers see how to adapt descriptors to better meet learner needs. This emphasis on the value of intensive and extensive CEFR-related professional development supports a recommendation by Majhanovich et al. (2010) that teachers be given such opportunities in order to gain a broad-enough understanding of the CEFR to begin to implement aspects of the framework in their FSL classrooms.

Mison and Jang (2011) found that FSL teachers appreciate the transparency, consistency, and global validity of the CEFR levels and descriptors, while FSL teachers in a study by Piccardo (2013) came to view the framework not solely as an instrument that sets and maintains teaching standards, but also as a tool that allows them to explore their approach to teaching. Concerning FSL students' experiences with the CEFR, Kristmanson et al. (2013) examined Grade 12 students using a language portfolio inspired by the principles and guidelines of the European Language Portfolio. While the students appreciated being able to make choices, use authentic and meaningful material, and have the opportunity to reflect and build their autonomy, some students felt ill-prepared for the type of language practice demanded in a CEFR-informed classroom.

With this theoretical and research base in mind, the current paper draws on teacher and student data to describe how the CEFR is impacting FSL teaching and learning in Ontario. Specifically, the paper responds to the following research questions:

1. What instructional practices do a group of early-CEFR-adopter Ontario FSL teachers retrospectively report having used under Ontario's former curriculum guidelines before having engaged in intensive and extensive CEFR-related professional learning?
2. What strengths and areas for proficiency improvement are evident in the DELF exam results of a group of highly-motivated students as they prepare to graduate from their FSL studies, which took place under Ontario's former FSL guidelines?
3. What changes in instructional practices do these Ontario FSL teachers report using now under the new CEFR-informed guidelines as a result of their intensive and extensive CEFR-related professional learning?

3. Methods

To respond to these guiding questions, the current paper draws on FSL teacher and student data from two reports for projects funded by the Government of Ontario and the Government of Canada through the Department of Canadian Heritage and directed by

Curriculum Services Canada (Rehner 2014, 2017). In the student project, 434 Grade 12 Ontario FSL students took part in the Spring, 2013 DELF exam as part of the Ministry's initiative. This timing is important, as it means that the students' schooling had taken place entirely under the former FSL guidelines (i.e., before the CEFR-informed, task-based documents had been introduced). These students were highly-motivated FSL learners insofar as they had elected to continue their French learning well beyond the point past which FSL courses were mandatory (i.e., up until the end of Grade 9) and insofar as they agreed to challenge the DELF exam above and beyond the requirements of their FSL programs. These students were from Core French, Extended French (i.e., a program offering Core instruction followed by a year or two of Immersion-like instruction), and French Immersion programs across the province. Although it would be of considerable interest to examine the student results according to these program distinctions, the data in the original project do not allow for this type of breakdown, as the DELF exam results were presented as a whole across the programs. The students self-selected the level of the DELF they would challenge. While all administrators and markers were certified DELF examiners from the participating school boards, they were not necessarily the teachers of the student participants. The DELF levels A2, B1, and B2 were challenged by students from each of the three FSL programs (no students elected to challenge the A1 level exam). Those students who challenged the A2 level ($n = 84$) were predominantly from Core French, and the overall success rate was 99%. Those challenging the B1 level ($n = 207$) included a substantial proportion of the students from Extended French, and their success rate was 96%. Finally, the students taking the B2 level exam ($n = 143$) were predominantly from French Immersion, and their success rate was 87%. These high success rates reflect, in part, the special characteristics of this group of students as highly-motivated learners in their final year of study, and also, perhaps, the desire on the part of some of the students to challenge an exam level they felt certain of easily passing, since Core French students are expected to reach the B1 level by the end of their studies (not A2), and Extended French and French Immersion students are expected to reach the B2 level (not B1).

The teacher project focused on 103 FSL teachers from all grade levels (Kindergarten to Grade 12) from across Ontario. The teachers responded to an online-survey in the Spring of 2016 (i.e., shortly after the current CEFR-informed FSL guidelines had been introduced) that tapped their self-reported instructional practices before versus after their engagement in intensive and extensive CEFR-related professional learning. Each participating school board invited five FSL teachers to be part of the project, and, as a result, it is likely that the selected teachers were early adopters of the CEFR and among the most positively oriented to the framework. The online survey asked the teachers to, first, provide background information regarding their teaching experience and their CEFR-related professional learning and, second, to respond to questions focusing on their instructional practices in the areas of planning, classroom delivery, and assessment/evaluation both before and after their CEFR-related learning. In this way, the teachers were asked to think in a retrospective fashion about their prior instructional practices before their professional learning experiences and to report on their current practices after their professional learning. Of the 103 teachers, 37% taught exclusively in a Core French program, 1% in Extended French only, 34% solely in French Immersion, and 28% in a combination of these program types. However, like in the student project, the data in the report from the teacher project were presented as a whole and, thus, do not allow for an investigation by program type. With respect to their number of years of teaching experience, 17 teachers had taught for 24 years or more, 17 teachers had taught for 20–23 years, 13 teachers for 16–19 years, 19 teachers for 12–15 years, 17 teachers for 8–11 years, 19 teachers for 4–7 years, and only one teacher reported teaching for 1–3 years. Therefore, with the exception of a few teachers, the vast majority of the respondents had spent the better part of their careers teaching under the curriculum guidelines in place from 1999–2013, and all were grappling with adapting to the new CEFR-informed, task-based FSL documents. Finally, for their CEFR-related professional learning, two thirds of the teachers reported having engaged in such learning

for one to five years (with 48% reporting 4–5 years), while the remaining third of the teachers reported 6 or more years of such professional development. These professional learning opportunities included DELF marker training for all 103 teachers, school- or board-sponsored CEFR conferences or workshops (for 93% of the teachers), DELF refresher courses (77%), job-embedded CEFR learning (56%), CEFR provincial web-conferences (55%), and regionally-sponsored CEFR learning events (54%) among other activities.

All teachers provided their informed consent for inclusion before participating in the teacher project. Informed consent was also obtained from all participating students and their parents before the student project began. The protocols were approved by Curriculum Services Canada (CSC 611—LGY 769). In the student project, the DELF exam scores were analyzed by a university-based statistician using independent and paired tests for equality of means (z/t) (De Veaux et al. 2011), with statistical significance set at 0.05. In the teacher project, for most survey questions, the teachers indicated their frequency of use of instructional practices on a 0 to 5-point Likert scale, where 0 represented no use and 5 represented the highest level of use. The analysis of these responses was presented using mean frequencies as indicators of the teachers' central tendencies.

4. Results

The teacher and student results are presented below in response to the three research questions guiding the present study, starting with the teachers' retrospective reports of their instructional practices under Ontario's former curriculum guidelines and prior to their CEFR-related professional learning; followed by the proficiency strengths and weaknesses, as identified through DELF exam results, for the students graduating from programs guided by the former curriculum documents; and ending with the changes in instructional practices reported by the teachers under the current CEFR-informed guidelines and as a result of their CEFR-based professional learning.

4.1. Teachers' Retrospective Reports of Instructional Practices Prior to Their CEFR-Related Professional Learning

The teachers were asked to think retrospectively about the planning, classroom delivery, and assessment/evaluation practices they had used under the former Ontario FSL guidelines in the years prior to having engaged in any CEFR-related professional learning. With respect to planning, in commenting on the percentage of class time they usually planned to allot to each of the four language skills, the teachers reported that the majority of their instructional time (32%) focused on activities addressing writing skills, while both reading and speaking skills were allotted an equal amount of class time (25%), with listening skills receiving the smallest portion (18%) of the teachers' reported instructional focus. This privileged focus on writing in the teachers' reported practices is reflective of the curriculum documents in place at that time which targeted the skills that learners need to become "good writers who are able to communicate ideas and opinions with ease and clarity" (Ontario Ministry of Education 2000, p. 7). The teachers' reported planning practices before their CEFR-related professional learning also focused most often on the building of linguistic competence (e.g., grammar, pronunciation, word choice) and pragmatic competence (e.g., organization of ideas, purposeful communication), as well as on engaging students in individualized tasks that had been designed to meet the needs of students who might be at different levels of FSL proficiency (see Figure 1).
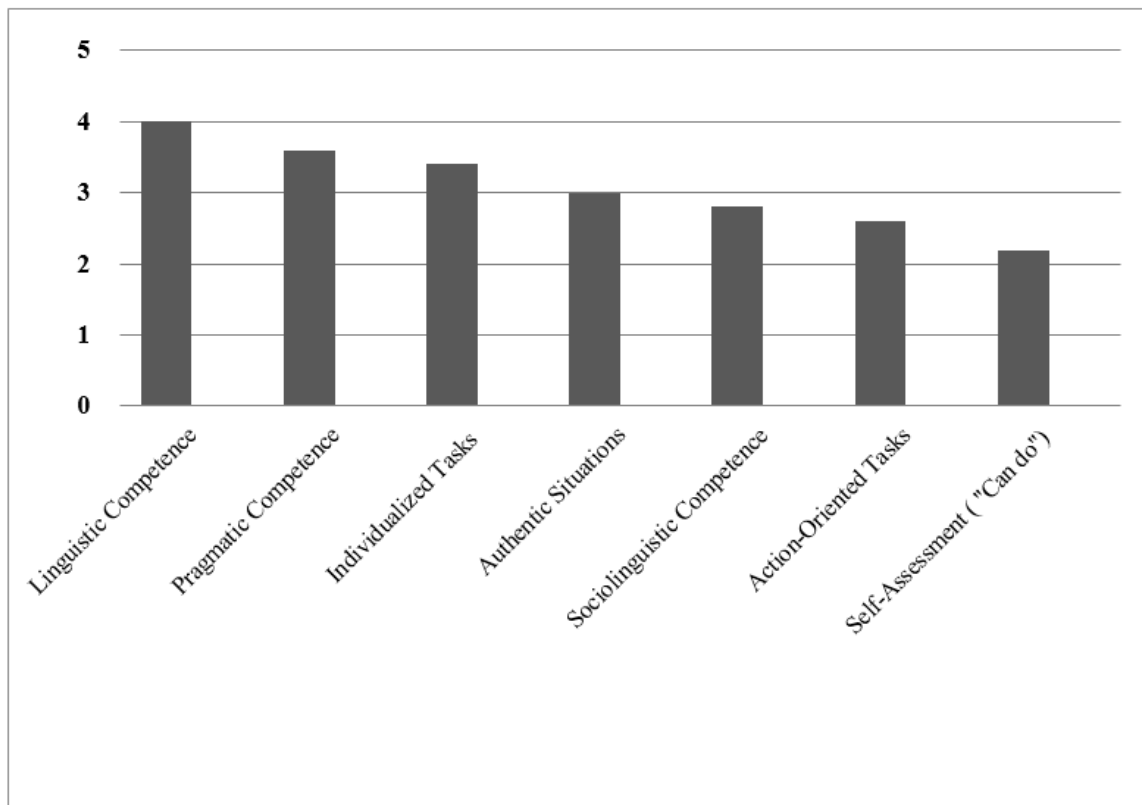
Figure 1. Frequency of Using Instructional Practices before Professional Learning.

In considering their classroom delivery before their professional learning, the teachers were asked to report retrospectively on their frequency of use of various teaching practices, including a focus on language structures, the correction of student errors as they occurred, oral interaction and written activities related to everyday life, teaching and learning organized around real-life situations, encouraging students to identify competences that they need to carry out a task, and the use of a language portfolio to track students' development. As Figure 2 shows, the teachers' reported practices before their CEFR-related professional learning focused, above all, on teaching language structures and correcting student errors as they occurred. The teachers also reported paying less attention to oral interaction and written activities related to everyday life and to teaching and learning organized around real-life situations. This strong focus on grammatical accuracy with less attention to real-life uses of language were in line with the FSL guidelines in place at that time which emphasized the mastery of grade-specific grammatical structures through the completion of learning activities targeting oral and written literacy. Encouraging students to identify competences that they needed to carry out a task and the use of a language portfolio to track students' development were the least-frequently-reported strategies. When reflecting on their classroom delivery related to the development of the receptive skills of listening and reading and the productive skills of speaking and writing (see Figure 3), the teachers reported placing the greatest emphasis on linguistic competence and less emphasis on pragmatic competence and sociolinguistic competence (e.g., level of formality, politeness conventions). The teachers were also asked to reflect on how they presented language in the classroom prior to their CEFR-related professional learning. Forty-eight percent of the teachers reported presenting language in "isolated or disconnected ways," and 41% reported "using themes, mainly focusing on vocabulary" (see Figure 4). Again, this focus on forms in isolation and the use of themes to direct vocabulary teaching were consistent with the FSL curriculum guidelines in place at that time.
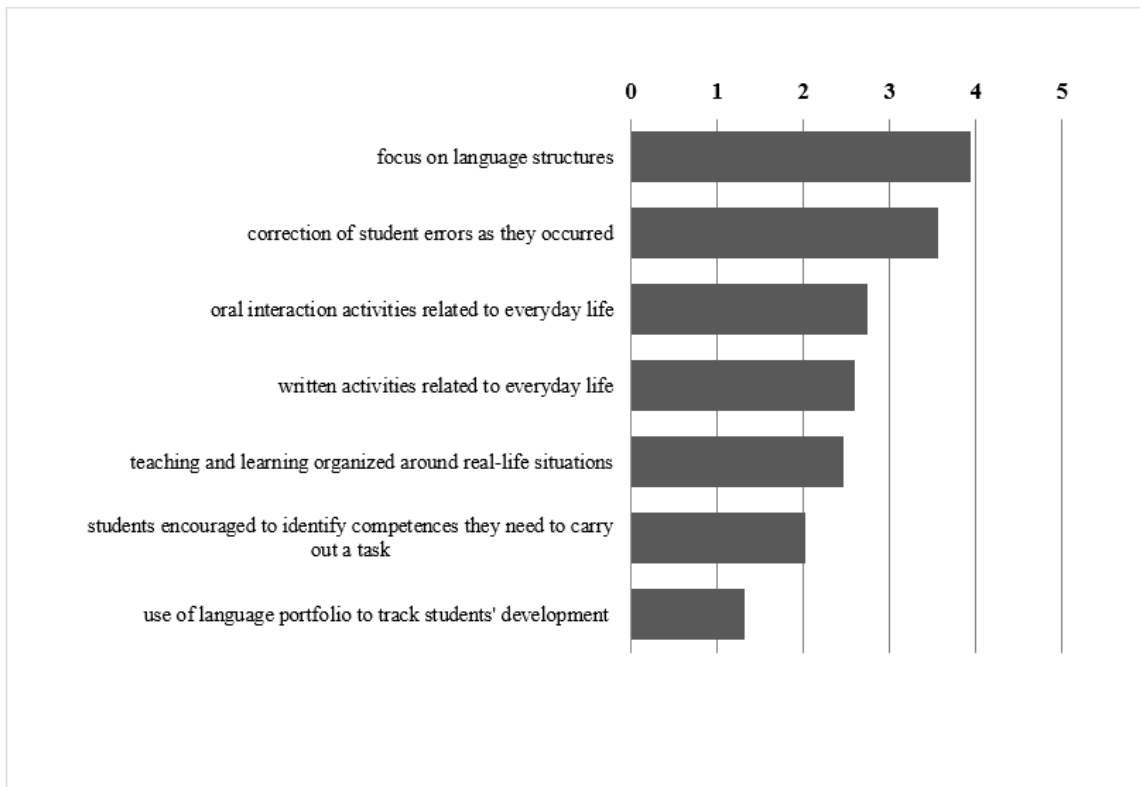
Figure 2. Frequency (0–5) of Practices before Professional Learning.
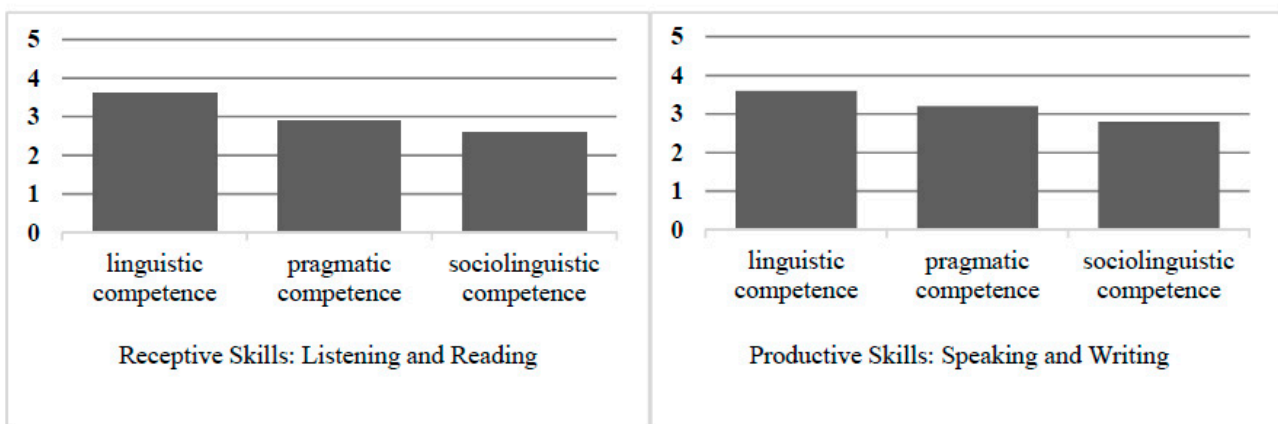
Figure 3. Emphasis (0–5) on Competences in Receptive and Productive Skills before Professional Learning.

With respect to their retrospective reflections on their assessment and evaluation practices prior to their CEFR-related professional learning (see Figure 5), the teachers reported focusing both their criteria and feedback on form over function. Above all, the teachers reported concentrating on assessing grammatical accuracy and orthographic control. They also reported evaluating phonological control and control of vocabulary but paying less attention to assessing vocabulary range, coherence/cohesion, fluency, and functional competence. Consistent with their classroom delivery, more attention in their feedback on students' work was reportedly given to structural precision, with less to pragmatic and sociolinguistic appropriateness. Finally, the teachers were asked to indicate the percentage of attention they had allotted to each skill in their summative evaluations before their CEFR-related professional learning. The teachers reported devoting 60% of their evaluations to the written skills and only 40% to the oral skills. This was consistent

with the teachers' reported planning practices in which writing and reading were allotted a combined 57% of instructional time, with only 43% devoted to listening and speaking.
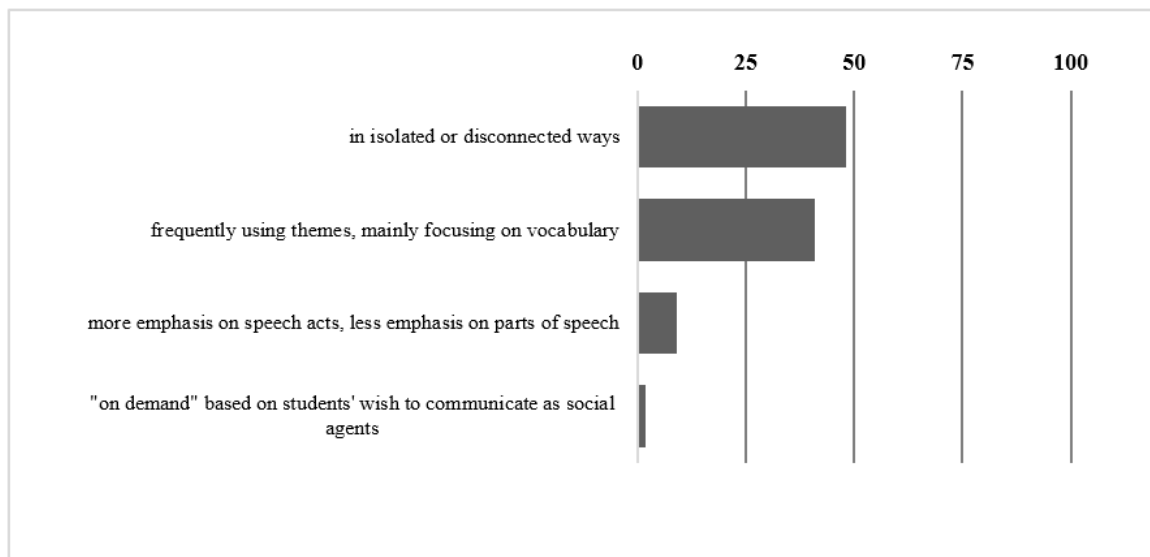
Figure 4. Presentation of Language (%) before Professional Learning.
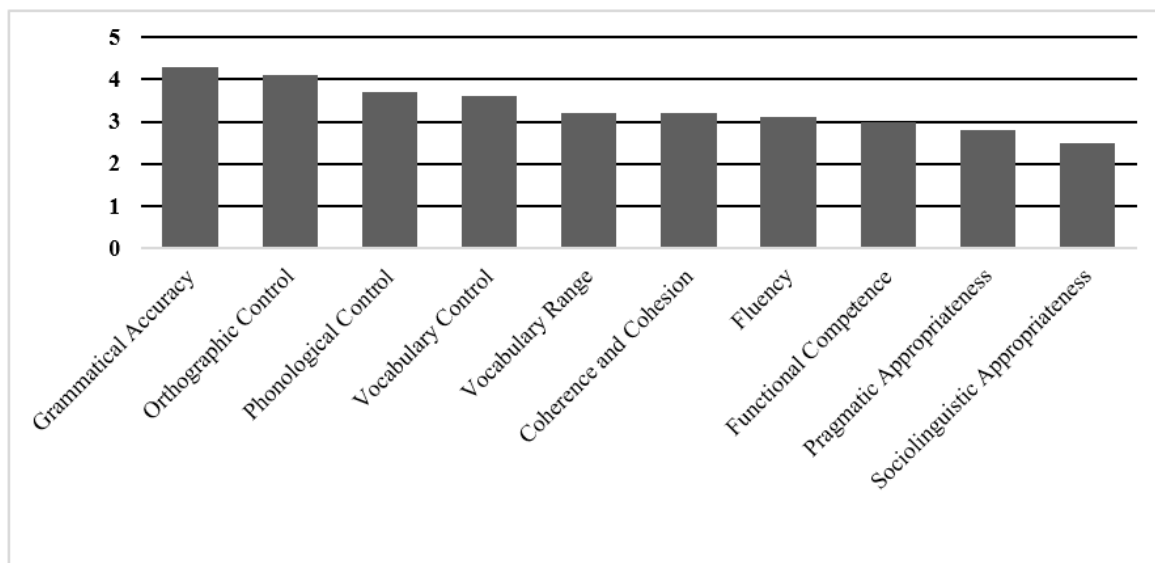
Figure 5. Frequency (0–5) of Targeting Aspects of Students' Work before Professional Learning.

In sum, the teachers' retrospective reports of their instructional practices prior to their CEFR-related professional learning reveal planning, teaching, and assessment/evaluation strategies which focused on structural precision, with stress on specific structures in isolation and on thematic vocabulary supporting the accomplishment of individualized tasks designed to address learners' varying FSL proficiency levels. This preference for a "form over function" approach was also evident in the teachers' reported assessment criteria and feedback. Further, the teachers reported prioritizing class time for written skills development over oral competence. These instructional practices reported by the teachers were reflective of the focus of the 1999–2013 curriculum documents in place at that time which promoted grammatical learning and theme-based vocabulary. Under these guidelines, what was taught and how students demonstrated language competence were

determined by the structures and vocabulary deemed necessary to accomplish pre-selected individualized tasks—tasks not necessarily requiring language use in real-life contexts.

4.2. Strengths/Opportunities for Improvement in the DELF Results for Students under the Former Guidelines

The DELF exam results provide one means of capturing areas of strength and opportunities for proficiency improvement for the students as they prepared to graduate from their FSL studies, which were undertaken under the former Ontario guidelines (i.e., before the introduction of the CEFR-informed documents). Figure 6 captures the students' overall DELF results. As can be seen, the students scored highest on the reading component with a mean score of 18.98/25 (76%), a score which was statistically significantly higher than for all of the other skills ($p < 0.005$ compared to writing, $p < 0.005$ compared to speaking, and $p < 0.005$ compared to listening). The students' mean score for speaking was 17.33/25 (69%), which was statistically significantly lower than reading ($p < 0.005$), but higher than the remaining two skill areas ($p = 0.011$ compared to listening and $p = 0.042$ compared to writing). Writing, with a mean score of 16.89/25 (68%), and listening, with a mean score of 16.75/25 (67%), were the skills that offered the students the most room for improvement, as they were statistically significantly lower than reading ($p < 0.005$ for both) and speaking ($p = 0.042$ and $p = 0.011$, respectively), but not statistically significantly different from each other ($p = 0.542$).
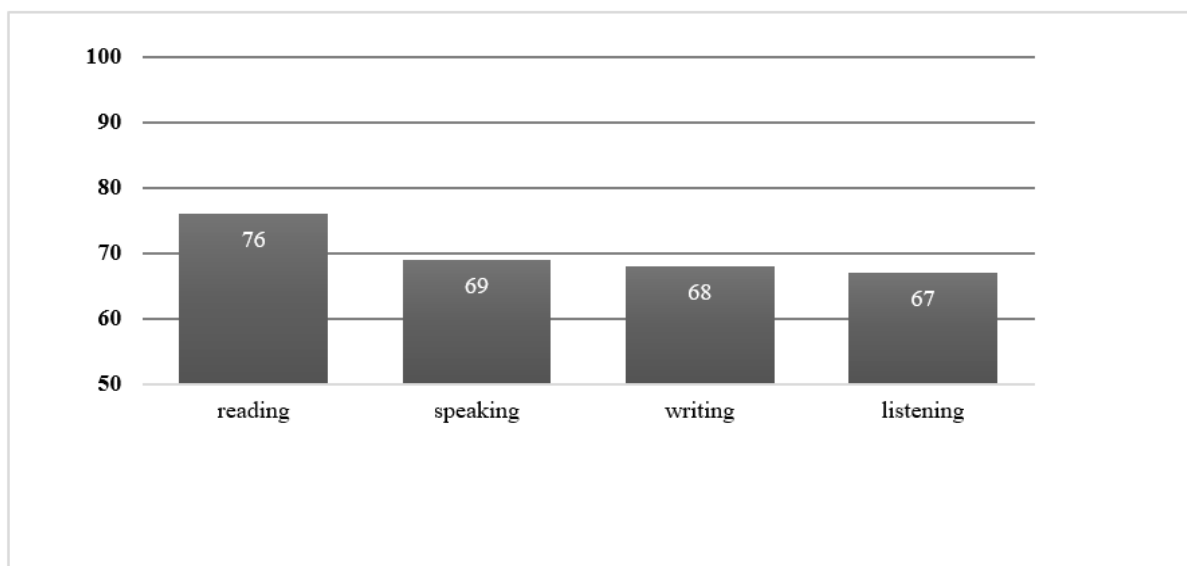
Figure 6. Performance (%) on the Diplôme d'études en langue française (DELF) by Skill Area for All Groups Combined.

Looking level by level, while reading remained the area of greatest strength regardless of the DELF level the students challenged, the overall scores mask interesting differences. Starting with the results for the A2 exam (see Figure 7), the mean scores were 22.95/25 (92%) for reading, followed by 18.89/25 (76%) for listening, 18.88/25 (76%) for speaking, and 18.54/25 (74%) for writing. The score for reading was statistically significantly higher than for the remaining skills ($p < 0.005$ for listening, $p < 0.005$ for speaking, and $p < 0.005$ for writing), with no significant differences among the other skills. For those students who challenged level B1 (see Figure 8), the mean scores were 19.46/25 (78%) for reading, 17.78/25 (71%) for writing, 17.66/25 (71%) for speaking, and 16.90/25 (68%) for listening. The score for reading was statistically significantly higher than for the remaining skills ($p < 0.005$ for listening, $p < 0.005$ for speaking, and $p < 0.005$ for writing), while the score for listening was significantly lower than the other three skills ($p < 0.005$ for reading, $p = 0.035$ for writing, and $p = 0.019$ for writing). The scores for writing and speaking were not significantly different from each other ($p = 0.697$). Finally, for those students

who challenged level B2 (see Figure 9), the highest mean scores were 15.96/25 (64%) for speaking and 15.92/25 (64%) for reading, while the students scored 15.25/25 (61%) for listening and 14.63/25 (59%) for writing. The score for writing was significantly lower than the score for the top two skills ($p = 0.003$ reading, $p = 0.001$ speaking), but not significantly lower than the score listening ($p = 0.141$).
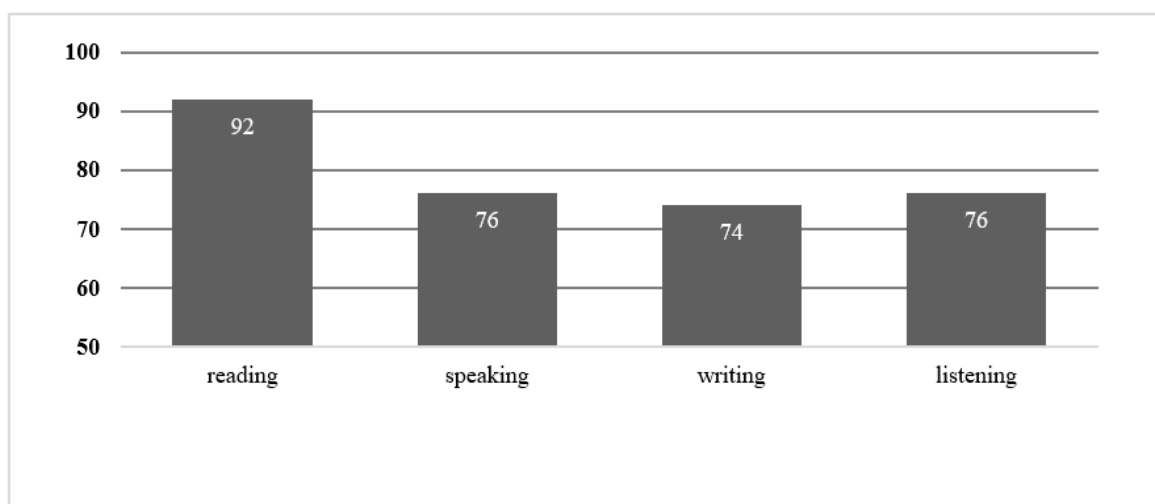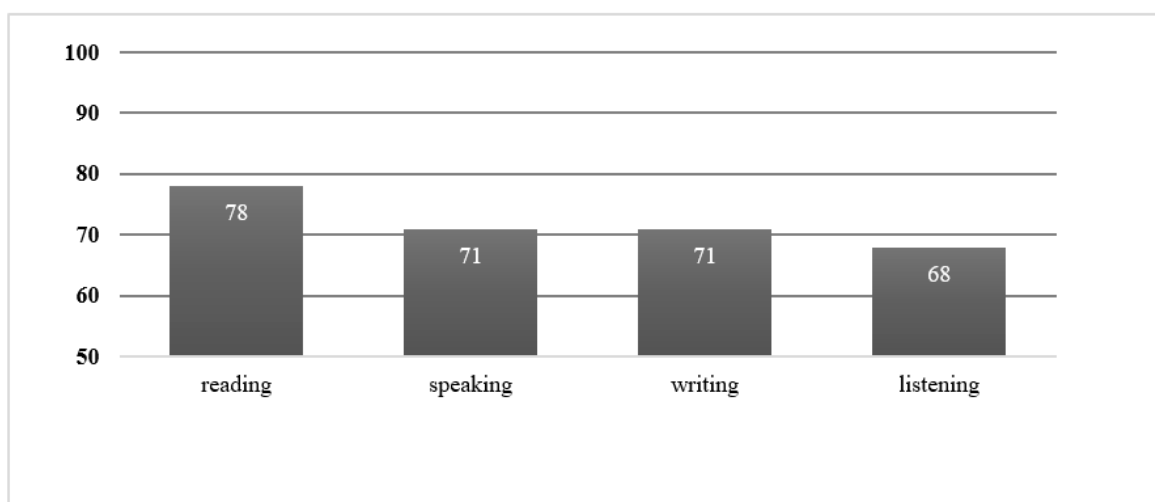

Figure 7. Performance (%) on the DELF by Skill Area for the A2 Group.

Figure 8. Performance (%) on the DELF by Skill Area for the B1 Group.

With respect to the specific written and oral subskills that were evaluated as part of the DELF exams' speaking and writing components, the results presented in Table 1 show that, regardless of the exam level challenged, the students' relative strengths for writing included following the task instructions and describing or presenting information, and for the oral they included phonological accuracy and the ability to respond and/or share precise ideas. In contrast, regardless of the exam level challenged, the students struggled more with their use of grammar and vocabulary in both written and oral forms. This was reflected in the low writing and oral scores for morphosyntax (writing—A2 = 62%, B1 = 51%, B2 = 46%; oral—A2 = 68%, B1 = 62%, B2 = 40%) and for vocabulary (writing—A2 = 73%, B1 = 64%, B2 = 53%; oral—A2 = 72%, B1 = 68%, B2 = 40%).
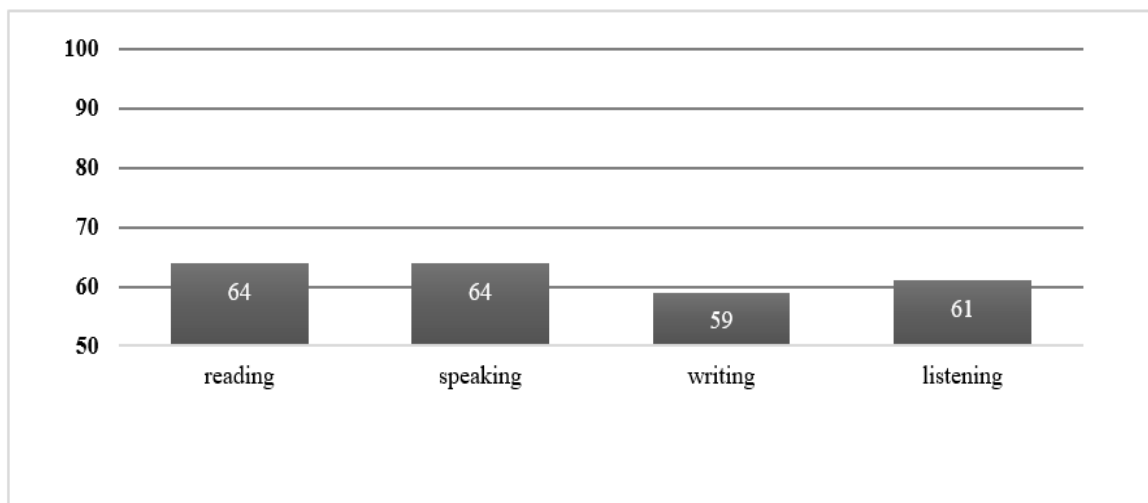
Figure 9. Performance (%) on the DELF by Skill Area for the B2 Group.

Table 1. DELF Scores by Level for Written and Oral Sub-skills.

Written Sub-Skills	Scores (x/100)			Oral Sub-Skills	Scores (x/100)		
	A2	**B1**	**B2**		**A2**	**B1**	**B2**
Follow Instructions	92	87	80	Phonology	80	75	53
Describe/Present Info	78	76	63	Respond/Share Precise Ideas	89	71	42
Coherence	77	76	59	Present Topic/Own View	76	75	42
Vocabulary	73	64	53	Vocabulary	72	68	40
Morphosyntax/forms	62	51	46	Morphosyntax	68	62	40

Taken together, the DELF exam results reveal that the students were stronger in their written skills than in their oral skills. However, their writing was evaluated more favorably for its coherence than for the accuracy of its grammatical structures or of its use of appropriate vocabulary in context. For speaking, the DELF results showed similar weaknesses in the students' control of grammatical forms and vocabulary. Thus, despite being highly-motivated learners at the end of their FSL studies, the students still faced challenges in deploying their grammatical and lexical knowledge to accomplish the types of interactive and mediated tasks demanded in the DELF—the kinds of tasks that the current CEFR-informed, task-based Ontario FSL guidelines will now be requiring of students. These difficulties are reminiscent of those found by Kristmanson et al. (2013), who showed that some of the Canadian Grade 12 FSL students in their research felt ill-prepared for the type of language practice demanded in CEFR-informed contexts.

4.3. Changes in Teachers' Reported Practices under the Current Guidelines and after CEFR-Related Learning

When asked to report on the instructional practices they now use under the current Ontario FSL guidelines and after having engaged in intensive and extensive CEFR-related professional learning, the teachers' responses showed marked changes in all three areas tapped by the survey, namely planning, classroom delivery, and assessment/evaluation. Starting with planning, when considering their planned allotment of class time for each skill area, the teachers reported that they now prioritize speaking (37% of planned time allotment) and listening (24%), with less time now allotted to writing (20%) and reading (19%), which marked a shift from their former focus on the written skills (57%) over the oral skills (43%). This finding is in line with that of Vandergrift (2015), who found that Canadian FSL teachers reported using more interactive speaking activities as a result of learning more about the DELF, and with the findings of Moonen et al. (2013), who showed that the CEFR is increasing Canadian FSL teachers' focus on oral skills development. The

teachers' reported planning practices after their professional learning also showed notable changes (see Figure 10). Compared to their previous focus on linguistic competence, pragmatic competence, and individualized tasks, the teachers reported now planning for a focus above all on action-oriented tasks and authentic situations. The attention they reported paying to linguistic competence in their planning was now in line with their focus on both pragmatic and sociolinguistic competences. These reported shifts are not only in line with the current CEFR-informed FSL curriculum documents highlighting "communicative and action-oriented approaches to teaching French [that] put meaningful and authentic communication at the centre of all learning activities" (Ontario Ministry of Education 2014, p. 9), but also with the focus of task-based language teaching that emphasizes the successful completion of tasks through interaction requiring real-world communication (Ellis et al. 2019), where students' attention is focused on "mobilizing their grammatical knowledge in order to express meaning, and in which the intention is to convey meaning rather than to manipulate form" Nunan (2004, p. 4). Remembering, however, that these teachers were hand-selected by their boards to participate in the study, it would be important to consider whether the impact of such professional learning on teachers' planning practices would be similar in a broader sampling of teachers, particularly those with less-positive orientations to the CEFR or those working in provinces where the framework had received less Ministry support.
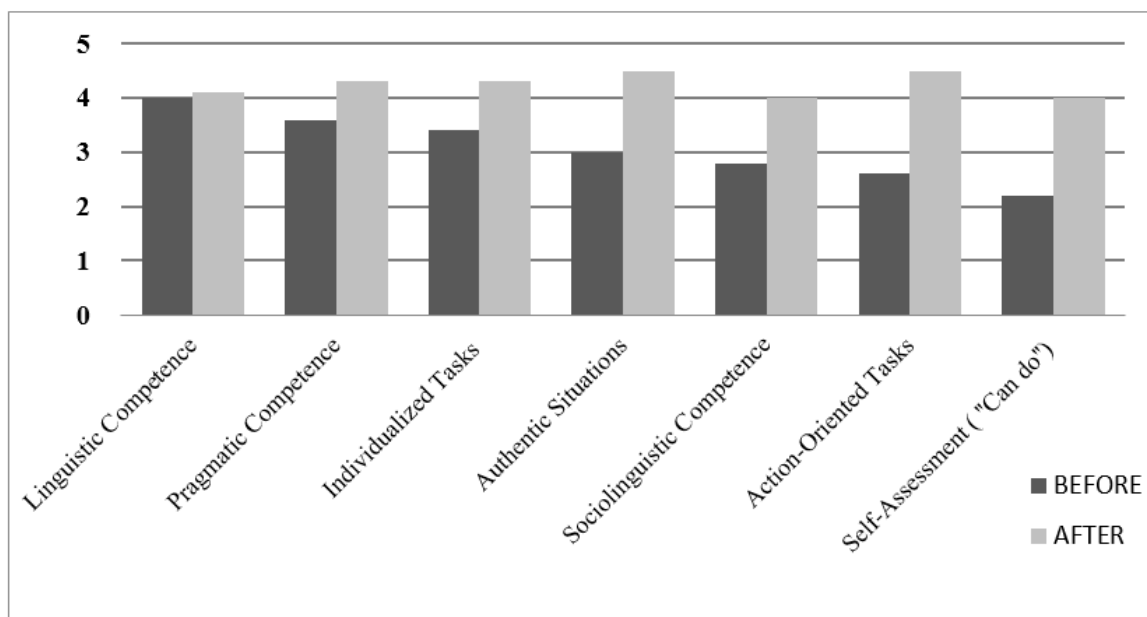

Figure 10. Frequency of Using Instructional Practices before vs. after Professional Learning.

When identifying their priorities for classroom delivery after their CEFR-related professional learning (see Figure 11), the teachers reported shifting their focus away from their previous attention to language structures and error correction above all and towards the importance of situating such a focus within teaching that now emphasizes everyday real-life situations, whether that be in relation to their organizing principles, oral interaction activities, or written activities. They also reported now focusing more on encouraging students to identify the competences that they need to carry out particular tasks. These changes are very much in line with a CEFR-informed, action-oriented approach to task-based language teaching which, as Piccardo (2014) explained, involves supporting students as they make judgements about what linguistic and non-linguistic tools they need to accomplish the communicative activities that real-world interactive tasks require. This change in focus to more contextualized language use after their professional learning was also evident in the teachers' responses to questions about their focus when addressing

the development of receptive and productive skills (see Figure 12). While linguistic, pragmatic, and sociolinguistic competences all saw an increase, the most notable changes, in keeping with their reported planning practices, were in the teachers' reported increase in focus on sociolinguistic and pragmatic competences. Although linguistic competence still maintained the highest teacher priority, these reported changes resulted in a more-balanced emphasis across all three competences. An even more dramatic shift was revealed when the teachers were asked to reflect on how they now presented language in the classroom after their CEFR-informed professional learning (see Figure 13). Recall that, prior to their professional learning, an overwhelming number of teachers (89%) reported presenting language either in "isolated or disconnected ways" or "using themes, mainly focusing on vocabulary." Strikingly, after their professional learning, 46% of the teachers reported "more emphasis on speech acts" and 45% reported presenting language "on demand, based on what students wished to communicate as social agents." No teacher reported continuing the practice of presenting language in "isolated or disconnected ways." This reported emphasis on presenting language within the context of speech acts and students' communicative needs resulting from their actions as social agents is very much in keeping with the emphasis in the current FSL guidelines on authentic and meaningful interaction that shifts teaching away from the presentation of language "as a system of disconnected and isolated components" (Ontario Ministry of Education 2014, p. 9) and that aims, instead, to focus FSL learners "on what it is they are trying to communicate; what they need others to understand, and why" (Ontario Ministry of Education 2014, p. 7). It is also very much in line with the goal of task-based language teaching within an action-oriented approach, which seeks to embed a focus on form within real-world communication that is needed for the type of interaction which takes place within carefully designed pedagogical tasks (Long 2014). Recall that the work by Faez and her colleagues (Faez et al. 2011a; Faez et al. 2011b) also showed that the more practice FSL teachers had with the type of task-based approach at the heart of the CEFR, the more comfortable they were incorporating a focus on form within their communicatively-oriented teaching. However, again, how teachers in other contexts or with less-positive orientations to the CEFR might react is not known.
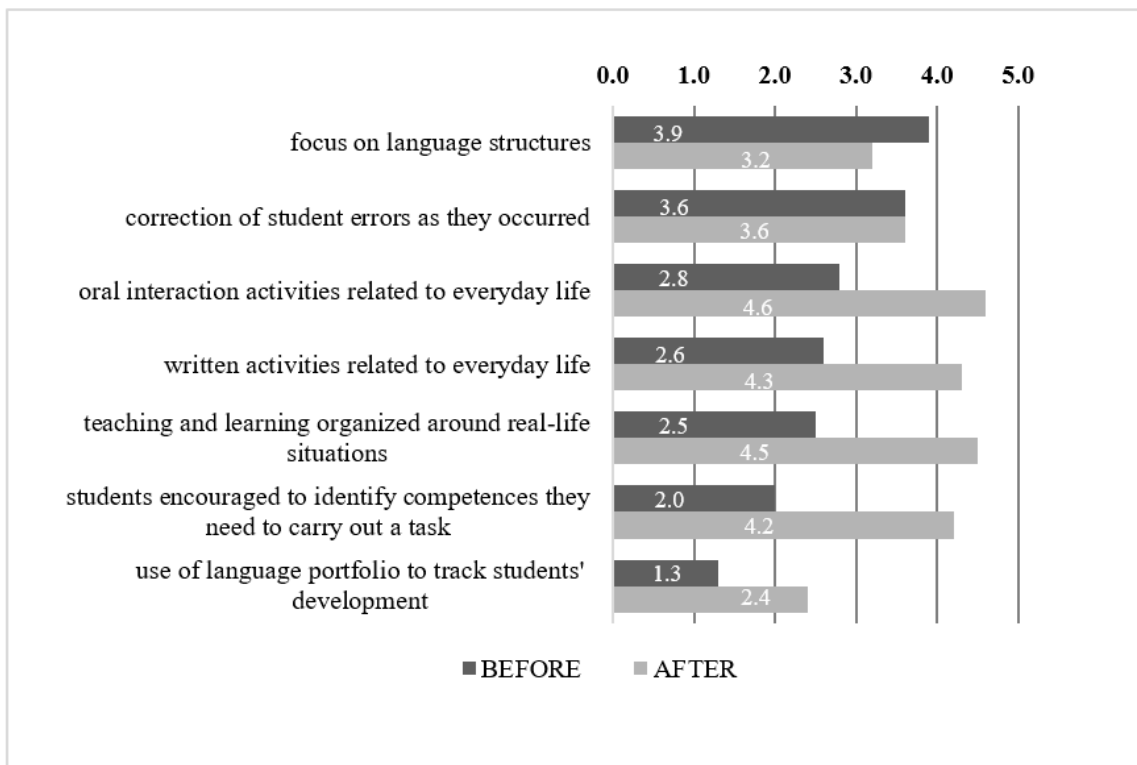

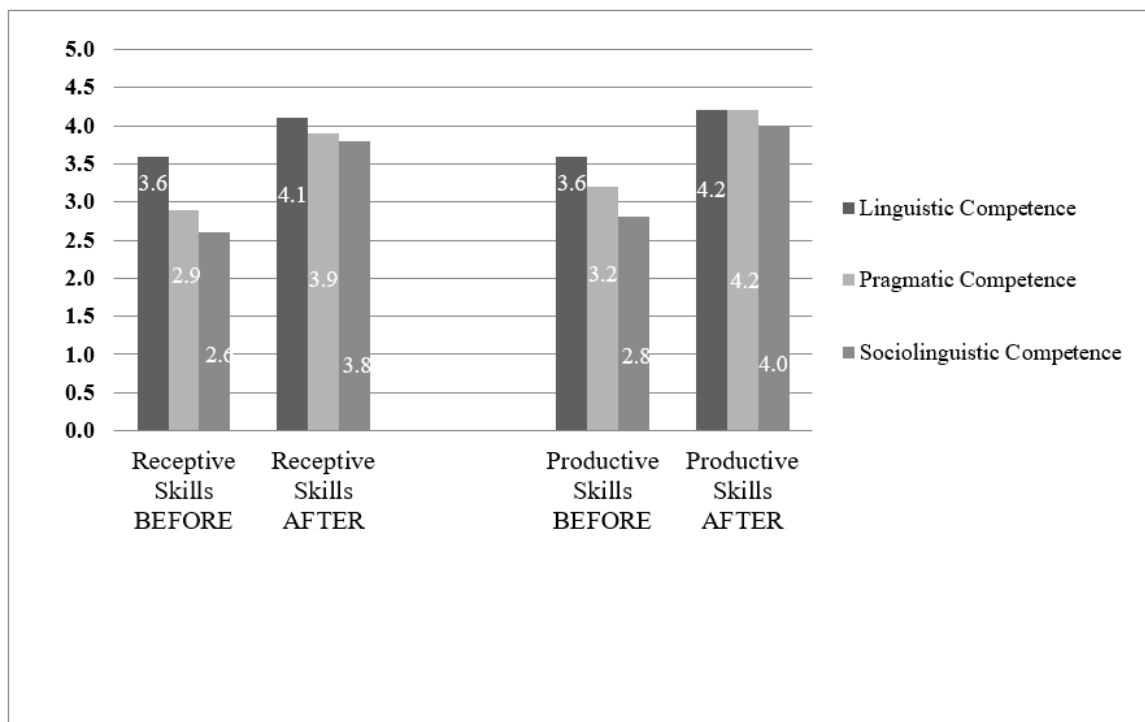**Figure 11.** Frequency (0–5) of Teacher Practices before vs. after Professional Learning.

Figure 12. Emphasis (0–5) on Competences in Receptive and Productive Skills before vs. after Professional Learning.
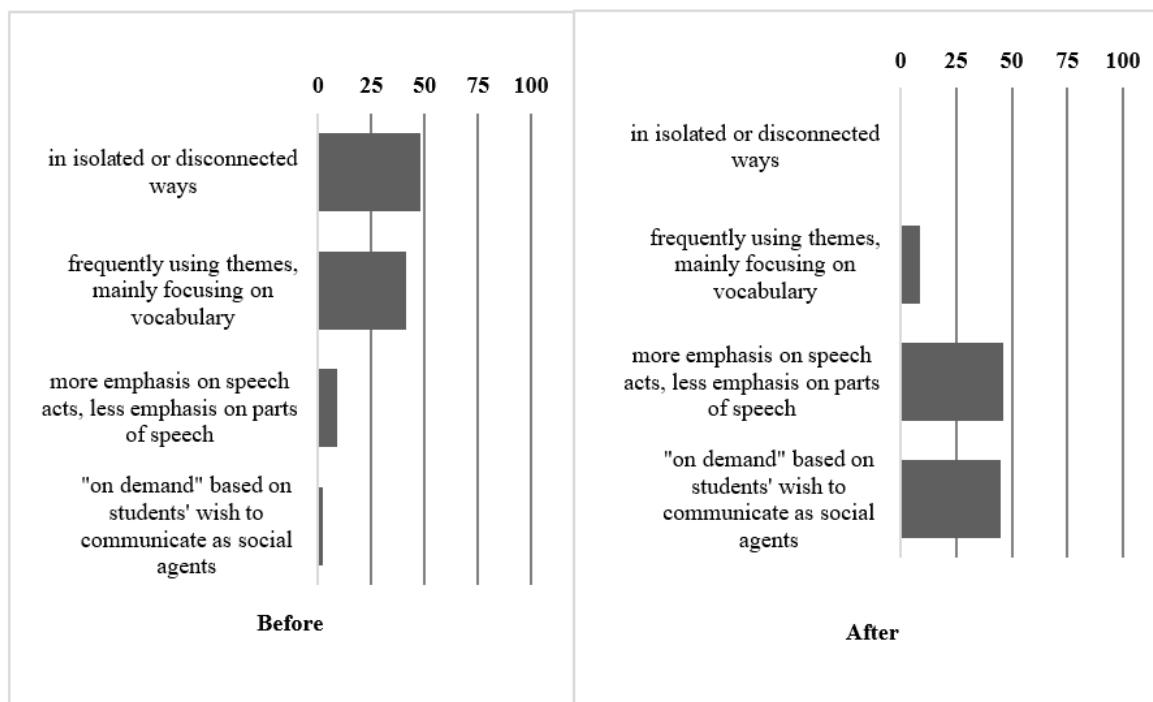

Figure 13. Presentation of Language (%) before vs. after Professional Learning.

Lastly, when considering assessment/evaluation, where the teachers had initially reported focusing their feedback on grammatical accuracy and orthographic control above all before their CEFR-related experiences, after their professional learning, the teachers reported now prioritizing functional competence, alongside pragmatic and sociolinguistic appropriateness, fluency, coherence and cohesion, and vocabulary range and control (see Figure 14). This is in line with Vandergrift's (2015) finding that familiarity with the DELF

had expanded Canadian FSL teachers' focus from assessing the acquisition of isolated grammatical rules to assessing more contextualized language use. It is also in keeping with the principle of formative assessment at the heart of the action-oriented approach to task-based language teaching that underlies the current CEFR-informed Ontario FSL guidelines. According to Piccardo (2014, p. 43), assessment in such an approach must be based on "what the social agent is able to do in a real situation." Finally, the teachers in the present paper reported a noticeable shift in the focus they allotted to each skill on summative evaluation. Before their professional learning, the teachers reported focusing 60% of their evaluation on reading and writing skills and only 40% on listening and speaking. However, after their CEFR related learning, the teachers reported now prioritizing oral skills (56%) over written skills (44%) in their assessment and evaluation practices.
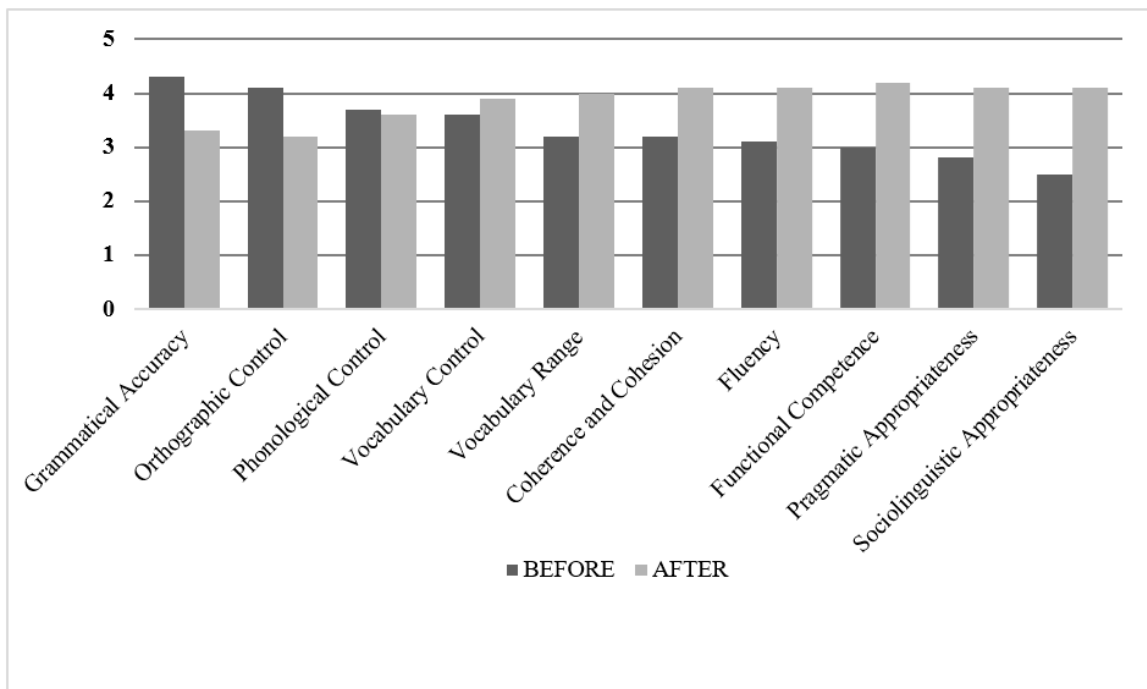

Figure 14. Frequency (0–5) of Targeting Aspects of Students' Work before vs. after Professional Learning.

5. Conclusions

In describing both the self-reported instructional practices of a group of early-CEFR-adopter Ontario FSL teachers before versus after engaging in intensive and extensive CEFR-related professional learning and the areas of strength and opportunities for proficiency improvement in the DELF exam results for a group of highly-motivated Ontario FSL learners as they prepared to graduate from their programs, the present exploratory study opens a window onto how the CEFR is impacting the local landscape of FSL education in the province.

The teachers in the present study reported important shifts in their instructional practices as a result of their CEFR-related learning that are in keeping with the current CEFR-informed Ontario FSL curriculum and its action-oriented approach to task-based language teaching. These shifts in the teachers' reported planning, classroom delivery, and assessment/evaluation practices after their CEFR-related professional learning signal a clear movement away from the grammar-based model inspired by the previous FSL curriculum documents, where language learning and production were directed by themes and where teachers reported presenting language in isolation. Instead, the teachers are now reporting a more open model promoting language learning through genuine communication in authentic, everyday situations. The current FSL documents are heavily informed by the CEFR and thus promote an action-oriented approach in which language learning takes

place in contexts which are meaningful to the students. In this actional approach, both what is learned (grammatical content and vocabulary) and how students demonstrate language competence (through the successful accomplishment of carefully crafted pedagogical tasks) are determined based on the needs of the students to communicate in real-life situations.

Such changes in the teachers' reported instructional practices seem well poised to scaffold students as they grapple with the types of FSL proficiency challenges identified in the present study through the DELF exam results for students who had studied primarily under the previous FSL guidelines, which privileged a focus on form over function. While the DELF exam results revealed the students' strengths in reading, in following instructions and describing and presenting information in writing, and in phonological accuracy and the ability to respond and/or share precise ideas when speaking, they also revealed significant challenges with respect to morphosyntactic accuracy and vocabulary range and accuracy in both the written and oral production components. These challenges highlight the difficulty the students experienced deploying their grammatical and lexical knowledge gained through a focus on form under the previous FSL guidelines to serve the type of communication required in the interactive tasks of the CEFR-informed DELF exam—the same types of tasks at the heart of the current CEFR-informed Ontario FSL curriculum with its action-oriented approach to task-based language teaching. These difficulties echo VanPatten's (2016, p. 656) caution against the simplistic assumption that "explicit rule + practice = proficiency" and underscore the opportunity for the CEFR to positively impact students' FSL learning in the province.

While the changes documented in the teachers' reported instructional practices after engaging in intensive and extensive CEFR-informed professional learning auger well for addressing these challenges and enhancing student proficiency, it must be borne in mind that these teachers were selected by their boards for participation in the study and may therefore be among the most positively-oriented and progressive early adopters of the CEFR in the province and that relying on their self-reports and retrospective reflections does not necessarily capture the full reality of their instructional practices. Examining observational classroom data from a broader swath of the province's FSL teachers would be a crucial next step, as would be examining additional measures of student proficiency in non-test settings, according to program type, among less-motivated learners, and, in time, with students who have completed their studies under the province's current CEFR-informed FSL guidelines. Despite these methodological limitations, this exploratory study suggests important pathways for continued research on the acquisition of French as a second language and opens a useful window for scholars and educational stakeholders onto how the CEFR is impacting FSL education at the local level in Ontario.

References

Arnott, Stephanie. 2013. Canadian Empirical Research on the CEFR: Laying the Groundwork for Future Research. Annotated Bibliography for the Canadian Association of Second Language Teachers/l'Association Canadienne des Professeurs de langues Secondes. Available online: https://www.caslt.org/files/pd/resources/research/2013-panorama-empiricalresearch-cefr-en.pdf (accessed on 6 May 2020).

Arnott, Stephanie, Lace Marie Brogden, Farahnaz Faez, Murielle Péguret, Enrica Piccardo, Katherine Rehner, Shelley K. Taylor, and Meike Wernicke. 2017. The common European framework of reference (CEFR) in Canada: A research agenda. *Canadian Journal of Applied Linguistics* 20: 31–54.

Bourguignon, Claire. 2010. *Pour Enseigner les Langues Avec le CECRL: Clés et Conseils*. Paris: Delgrave.

Centre International d'Etudes Pédagogiques CIEP. 2021. Detailed Information on DELF Examinations. Available online: https://www.france-education-international.fr/en/delf-tout-public/detailed-information-the-examinations (accessed on 1 January 2021).

Council of Atlantic Ministers of Education and Training. 2010. Literacy: Key to Learning and Path to Prosperity—An Action Plan for Atlantic Canada 2009–2014. Available online: https://immediac.blob.core.windows.net/cametcamef/images/eng/docs/2010%20Literacy%20Progress%20Report%20ENGLISH%20FINAL.pdf (accessed on 6 May 2020).

Council of Europe. 2001. *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*; Cambridge: Cambridge University Press. Available online: https://rm.coe.int/1680459f97 (accessed on 6 May 2020).

De Veaux, Richard D., Paul F. Velleman, and David E. Bock. 2011. *Stats: Data and Models*, 3rd ed. Boston: Pearson/Addison Wesley.

DestinatiONtario DELF. 2021. Parent and Student Portal for Ontario Students Preparing for the DELF. Available online: https://destinationdelf.ca/ (accessed on 13 January 2021).

Ellis, Rod. 2003. *Task-Based Language Teaching and Learning*. Oxford: Oxford University Press.

Ellis, Rod, Peter Skehan, Shaofeng Li, Natsuko Shintani, and Craig Lambert. 2019. *Task-Based Language Teaching: Theory and Practice*. Cambridge: Cambridge University Press. [CrossRef]

Faez, Farahnaz, Shelley Taylor, Suzanne Majhanovich, Patrick Brown, and Maureen Smith. 2011a. Teacher reactions to CEFR's task-based approach for FSL classrooms. *Synergies Europe* 6: 109–20.

Faez, Farahnaz, Suzanne Majhanovich, Shelley K. Taylor, Maureen Smith, and Kelly Crowley. 2011b. The power of "Can Do" statements: Teachers' perceptions of CEFR-informed instruction in French as a second language classrooms in Ontario. *Canadian Journal of Applied Linguistics* 14: 1–19.

Halliday, Michael Alexander Kirkwood. 1985. *An Introduction to Functional Grammar*. London: Arnold.

Kristmanson, Paula, Chantal Lafargue, and Karla Culligan. 2013. Experiences with autonomy: Learners' voices on language learning. *The Canadian Modern Language Review* 69: 462–86. [CrossRef]

Little, David. 2006. The Common European Framework of Reference for Languages: Contents, purpose, origin, reception and impact. *Language Teaching* 39: 167–90. [CrossRef]

Long, Michael H. 1985. A role for instruction in second language acquisition. In *Modelling and Assessing Second Language Acquisition*. Edited by Kenneth Hyltenstam and Manfred Pienemann. Clevedon: Multilingual Matters.

Long, Michael H. 2014. *Second Language Acquisition and Task-Based Language Teaching*. Hoboken: John Wiley & Sons.

Lyster, Roy, and Leila Ranta. 1997. Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition* 20: 37–66. [CrossRef]

Majhanovich, Suzanne, Farahnaz Faez, Maureen Smith, Shelley Taylor, and Larry Vandergrift. 2010. *Describing FSL Language Competencies: The CEFR within an Ontario Context*. Unpublished manuscript. London: Western University.

Mison, Sara, and In Chull Jang. 2011. Canadian FSL teachers' assessment practices and needs: Implications for the adoption of the CEFR in a Canadian context. *Synergies Europe* 6: 99–108.

Moonen, Machteld, Evelien Stoutjesdijk, Rick de Graaff, and Alessandra Corda. 2013. Implementing CEFR in secondary education: Impact on FL teachers' educational and assessment practice. *International Journal of Applied Linguistics* 23: 226–46. [CrossRef]

Mui, Tiffany. 2015. Professional Development Based on the New CEFR and the New Ontario French Immersion Curriculum: A Case Study of Reflective Practice. Master's dissertation, Western University, London, ON, Canada. Unpublished work. Available online: https://ir.lib.uwo.ca/etd/2827 (accessed on 6 May 2020).

Nunan, David. 2004. *Task-Based Language Teaching*. Cambridge: Cambridge University Press. [CrossRef]

Ontario Ministry of Education. 1980. *French Core Programs, 1980: Curriculum Guidelines for the Primary, Junior, Intermediate and Senior Divisions*. Toronto: Ontario Ministry of Education. [CrossRef]

Ontario Ministry of Education. 1998. *The Ontario Curriculum, French as a Second Language: Core French, Grades 4–8*. Toronto: Ontario Ministry of Education.

Ontario Ministry of Education. 1999. *The Ontario Curriculum, Grades 9 and 10: French As a Second Language—Core, Extended, and Immersion French*. Toronto: Ontario Ministry of Education.

Ontario Ministry of Education. 2000. *The Ontario Curriculum, French as a Second Language—Core, Extended, and Immersion French, Grades 11 and 12*. Toronto: Ontario Ministry of Education.

Ontario Ministry of Education. 2001. *The Ontario Curriculum, French as a Second Language: Extended French, Grades 4–8; French Immersion, Grades 1–8*. Toronto: Ontario Ministry of Education.

Ontario Ministry of Education. 2013. *The Ontario Curriculum, French as a Second Language: Core French Grades 4–8, Extended French Grades 4–8, French Immersion Grades 1–8*. Toronto: Ontario Ministry of Education, Available online: www.ontario.ca/education (accessed on 6 May 2020).

Ontario Ministry of Education. 2014. *The Ontario Curriculum, Grades 9–12: French as a Second Language-Core, Extended and Immersion*. Toronto: Ontario Ministry of Education, Available online: www.ontario.ca/education (accessed on 6 May 2020).

Piccardo, Enrica. 2013. (Re)conceptualiser l'enseignement d'une langue seconde à l'aide d'outils d'évaluations: Comment les enseignants canadiens perçoivent le CECR. *Canadian Modern Language Review* 69: 386–414. [CrossRef]

Piccardo, Enrica. 2014. *From Communicative to Action-Oriented: A Research Pathway*. Toronto: Curriculum Services Canada.

Piccardo, Enrica, Brian North, and Eleonora Maldina. 2019. Innovation and reform in course planning, teaching, and assessment: The CEFR in Canada and Switzerland, a comparative study. *Canadian Journal of Applied Linguistics* 22: 103–28. [CrossRef]

Rehner, Katherine. 2014. *French as a Second Language (FSL) Student Proficiency and Confidence Pilot Project Report 2013–2014: A Report of Findings*. Toronto: Ontario Ministry of Education and Curriculum Services Canada, Available online: https://transformingfsl.ca/wp-content/uploads/2015/12/Student_Proficiency_Full_Report.pdf (accessed on 6 May 2020).

Rehner, Katherine. 2017. *The CEFR in Ontario: Transforming Classroom Practice. Research Report.*. Toronto: Ontario Ministry of Education and Curriculum Services Canada, Available online: https://transformingfsl.ca/en/resources/the-cefr-in-ontario-transforming-classroom-practice/ (accessed on 6 May 2020).

Richards, Jack C. 2013. Curriculum approaches in language teaching: Forward, central, and backward design. *Relc Journal* 44: 5–33. [CrossRef]

Richards, Jack C., and Theodore S. Rodgers. 2014. *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.

Saskatchewan Ministry of Education. 2013. A Guide to Using the Common Framework of Reference (CEFR) with Learners of English as an Additional Language. Available online: http://publications.gov.sk.ca/documents/11/82934-A%20Guide%20to%20Using%20the%20CFR%20with%20EAL%20Learners.pdf (accessed on 6 May 2020).

Vandergrift, Larry. 2012. *The DELF in Canada: Stakeholder Perceptions. The DELF in Canada: Stakeholder Perceptions*. Ottawa: Canadian Association of Immersion Teachers, Available online: https://www.yumpu.com/s/BjCjN7Sc9ycT4yAD (accessed on 6 May 2020).

Vandergrift, Larry. 2015. The DELF in Canada: Perceptions of students, teachers, and parents. *Canadian Modern Language Review* 71: 52–74. [CrossRef]

VanPatten, Bill. 2016. Why explicit knowledge cannot become implicit knowledge. *Foreign Language Annals* 49: 650–57. [CrossRef]

Strengthening L3 French Motivation: The Differential Impact of Vision-Enhancing Activities

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Abstract: Even though the European Union has long promoted multilingualism, it has proven difficult to achieve widespread multilingual language competence beyond English through formal education in Europe. In Sweden, high dropout rates have been recorded in second foreign language (SFL) classes, and French is currently the most vulnerable language among the major SFLs with respect to the number of pupils and availability across the country. Therefore, an important question is how to increase the motivation for studying foreign languages other than English (LOTE), especially French. This paper reports on a semester-long quasi-experimental intervention study, with three activities designed to enhance pupils' ideal L3 self (IL3S) and increase their intended effort (IE) to learn French. Data were collected in two grade 9 intervention classes ($n = 45$) and in a control class ($n = 14$) in Sweden using questionnaires and focus group interviews. We measured the effect of the intervention through pre- and post-tests in both groups and additionally after each activity in the intervention classes. The results showed no overall significant effect of the intervention, but a positive effect on IE among the students with the highest level of IL3S prior to the intervention. Moreover, gender differences were found for the initial activity on both IL3S and on IE. The results are discussed in relation to the ease of accessing the self-image and characteristics of IL3S that enhance activities and gender effects. Methodological challenges involved in intervention studies with intact classes are also highlighted.

Keywords: motivation; LOTEs; French as a foreign language; ideal self; intervention

1. Introduction

Despite high political ambitions and a long-standing policy to promote multilingualism in Europe (European Commission 1995), the teaching of languages other than English (LOTEs) is facing major challenges in many European educational systems (European Commission 2014). Among young Europeans across different European countries, the status of global English has been found to have a negative effect on the interest in learning LOTEs (Busse 2017).

Sweden is no exception and stands out in a European comparison, with a strong and widespread proficiency in the first foreign language, English (European Commission 2011) and with a lack of motivation as the main reason for the disinterest in learning a second foreign language (SFL) (Eurobarometer 2012). Moreover, among Swedish pupils who decide to start studying a SFL in lower-secondary school, about one in four abandons their studies before the end of school (Tholin 2017).

In some European contexts, French as a foreign language might be particularly affected by the trend described above (Busse 2017; Gayton 2016). In the UK, a recent study reports that French has seen the highest drop in A-level entries between 1997–2017 in terms of numbers (British Council 2018). In Sweden, the national average of pupils choosing French in lower secondary school has dropped from around 20% in 2000 to around 14% in 2018. Moreover, the number of municipalities in the country without registered pupils in French

in lower secondary school has seen a dramatic increase in the same period. In 2000, there were no such municipalities, whereas this number was 41 (out of 290) in 2018 (Granfeldt et al. 2020; Granfeldt and Ågren 2019) (see below for discussion).

In reaction to the current trend, governments typically acknowledge the importance of learning LOTEs, and different policy measures have been introduced in order to increase the interest in learning languages like French, German and Spanish. Educational policy measures typically target pupils who have not yet chosen to study a foreign language, but for pupils already studying a SFL, pedagogical measures in order to prevent them from dropping out would seem particularly relevant. However, despite research demonstrating that motivation is a key factor for success in language learning (Dörnyei and Ushioda 2011; Ushioda 2020), the strategies used by teachers to enhance learner motivation have rarely been empirically researched (Karimi and Zade 2019). There is also very little research on the possible effects of such strategies in a formal learning context, especially for LOTEs. About ten years ago, Dörnyei (2009, p. 34) conjectured that "it is possible to devise creative ideal-self-generating activities drawing on past adventures, on the exotic nature of encounters with a foreign culture, and on role models of successful L2 learning achievers". Indeed, a few years later, Hadfield and Dörnyei (2013) proposed 99 different teaching activities aimed at enhancing the learners' "ideal future language self". The activities are designed to build pupils' vision of themselves as future successful language learners and users.

However, we still know very little about the possibility of enhancing pupils' ideal future language self by introducing specially designed teaching activities in the curriculum of if such intervention works better with some pupils than others. So far, only a few intervention studies have been conducted, and they almost exclusively involve speakers of L1 Chinese or Japanese learning English at university (Boo et al. 2015; Al-Hoorie 2018). As Wang (2020) points out, one significant difference between English and LOTEs might be the learners' attitudes towards the importance of learning the target language; LOTEs are often judged less important to learn. In their study, Busse et al. (2020) discuss the possibility that working with vision-enhancing activities stimulates plurilingual ideal self-aspirations in students and "may be beneficial to promote foreign language learning at school beyond EFL learning" (p. 411).

The present study therefore aims to fill several gaps. We will study the possible effects of learning activities with the same objectives as the ones developed by Hadfield and Dörnyei (2013), targeting the enhancement of the ideal future self through an intervention study in intact classes. We will focus on the learning of a second foreign language, French, in Sweden. The participants in our study are 15-year-old students learning French in Sweden as an L3. We will also investigate more momentary effects of various activities at different stages of the intervention and for different sub-groups of pupils in order to study potentially differential effects of the intervention.

The paper is organized as follows: Section 2 provides a literature review, where we first focus on the situation for SFLs in Sweden in general and French in particular, followed by a theoretical overview of the L2 motivational self system (L2MSS) and previous studies. Section 3 presents in some detail the design of the intervention study and the participants. The results are presented in Section 4, followed by a discussion (Section 5), which also highlights some limitations of the study.

2. Literature Review

2.1. Second Foreign Language Learning in Swedish Schools[1]

The study of a second foreign language (SFL) is not compulsory in the Swedish educational system. However, it is compulsory to make a "language choice" (*språkval*) at the latest in the year preceding year 6 (age 12 years). The language choice can be one of the

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[1] A note on terminology. We refer to French as a Second Foreign Language (SFL) when we talk about the implementation of French in the Swedish educational system. When we talk about the learners in this study, we will label French an L3, as in the third language to be acquired (after L1 Swedish and L2 English).

SFLs offered by the respective school. Schools are required by law (School ordinance) to offer at least two of the three languages of French, German and Spanish. As an alternative to an SFL, pupils can choose mother tongue instruction (if other than Swedish), remedial Swedish or English (or a combination of both, now labelled SV/EN) or Swedish sign language. Consequently, the choice of an SFL is optional. As of 2018, all teaching of SFLs must start in year 6 at the latest, but at the time of collection of data for this study, municipalities could still choose between starting in year 6 (age 12 years) or in year 7 (age 13 years). Today, French is the smallest among the three major SFLs, with about 14% of all pupils in year 9 (German 20% and Spanish 41%). French is most popular in urban areas, in particular in large cities (Granfeldt and Ågren 2019) and the least popular in smaller municipalities in rural areas of the country. This trend is evident over the last 20 years and has led to a situation where French is disappearing from an increasingly large number of smaller municipalities.

2.2. Learner Psychology and Language Learning
2.2.1. Motivation, the Self and Intended Effort

As a theoretical construct, "motivation" is both multifaceted and notoriously difficult to define. However, three dimensions of motivation are often cited, i.e., the choice of a particular action, the persistence with which it is carried out, and the effort spent on it (Dörnyei and Ushioda 2011, p. 4). Regarding language learning, an important motivational factor is learners' identity and identity goals (Ushioda 2011). Within research on language learning psychology, aspects of identity have been conceptualized within the "self-concept". According to the psychologists, Markus and Nurius (1987, p. 157), "possible selves" represent individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming. In an attempt to better understand foreign language learning motivation, Dörnyei proposed the L2 motivational self system (L2MSS) (Csizér 2019; Dörnyei and Ushioda 2009) with theoretical roots in Markus and Nurius's (1987) "possible selves" theory and in Higgins's (1987) self-discrepancy theory. L2MSS is based on three dimensions:

- the ideal L2 self (IL2S) (i.e., the representation of the L2 user a person would like to become),
- the L2 ought-to self (i.e., the representation of what the L2 user feels others want him or her to become), and
- the L2 learning experience (related to the immediate learning environment and experience, for example, the teacher, the curriculum, the experience of success and failure).

In L2MSS, the learners' perception of a manageable discrepancy between their actual self and IL2S represents a motivational catalyst to improve their language learning (see Higgins 1987; Dörnyei 2009). Since its introduction more than a decade ago, the L2MSS has found empirical support in a large number of studies (for an overview, see Boo et al. 2015). Many studies have also shown a positive correlation between the IL2S and the learners' intended effort (IE), where IE is defined as an indicator of the amount of effort that the participants are prepared to put into learning a language. However, when studies in different learning contexts have applied the L2MSS, the results reveal a rather complex picture that will be illustrated in the next section (see Al-Hoorie 2018). Moreover, some research areas have been neglected in previous research. In a systematic review of 416 papers and book chapters about L2 motivation over the last 15 years, Boo et al. (2015) show a clear dominance of studies focused on motivation as a theoretical construct (67% of the publications), a weak interest in learners from the primary (5%) and secondary (20%) level of education as opposed to the university level (51%), a geographical focus on East Asia and a clear majority of studies on L2 English (72.6%).

2.2.2. Factors Affecting the Ideal L2 Self and Links to Intended Effort

The IL2S has been acknowledged as a central part of the motivational process and as an important key to understand the degree of effort learners are willing to invest in language learning (Dörnyei and Ushioda 2009, 2011; Henry 2012). However, for the future self to become and stay a strong and efficient motivational variable, some conditions must be met (Dörnyei 2009, pp. 20–21). The current and future self should be sufficiently different from each other without implying "a clash between a learner's personal and social identity". The future self-image should be vivid, elaborate, and plausible and encourage the effort needed to reach the ideal vision. These conditions could be a reason why the ideal L2 self literature has produced conflicting results, as identified by Al-Hoorie (2018, p. 723) in his meta-analysis. Many studies demonstrate that the IL2S is a highly valid variable for measuring learners' motivation to learn a language and a good predictor of IE (Al-Hoorie 2018; Dörnyei and Ushioda 2011), but some studies are inconclusive. Kim and Kim (2011) could not, for example, establish a clear connection between a vivid IL2S and academic achievement. Lamb (2012) also found that the IL2S could not predict proficiency and concluded that "what makes them [the learners] more likely to invest effort in learning is whether they feel positive about the process of learning" (p. 1014). His study also highlights a significant effect of the IL2S on the learning effort for learners from a cosmopolitan context, but no such effect on learners from a provincial or rural context. Hessel (2015) notes that the conditions for the IL2S motivational capacity "remains largely unexplored in empirical studies" (p. 103). In their two studies, Hessel (2015) and Cho (2020) investigate how IL2S properties are associated with its motivational effect, conceptualized as IE. In Hessel's (2015) study, the frequency of activation of the IL2S was the most significant predictor of the 97 German university students' IE, followed by their perception of a discrepancy between their current self and IL2S and the strength of the desirability of the IL2S. For the 44 Korean college students learning English in Cho's (2020) study, the two most important properties of the IL2S were "accessibility" (i.e., the ease with which learners could access their IL2S) and "plausibility" (i.e., the perceived likelihood of the IL2S becoming a reality). With respect to IE, the only significant predictor was the centrality of the students' ideal self, i.e., the importance of the L2 self in relation to the general ideal self (Cho 2020). A final condition concerns the status of the foreign language itself in the learning context. In a study set in Sweden, Henry and Cliffordson (2013) looked at gender differences with respect to IL2S (English) but failed to find any such differences. The authors argue that English has lost its status as foreign language in Sweden and has become more of general educational priority, like mathematics or (L1) Swedish. Consequently, L2 English in the Swedish context is much less associated with the personal identity projects that the ideal L2 self-construct taps into. However, Henry and Cliffordson did find gender differences with respect to the third language (L3 French, German or Spanish), with girls scoring higher on the IL3S scale. Henry's (2012) research has established that multilingual learners have different language-specific images of themselves, and differentiating between IL2S and IL3S is now common.

2.2.3. Enhancing the Ideal L2 Self—Intervention Studies

The vast majority of IL2S studies have attempted to measure levels of IL2S in a specific group of learners at a specific point in time and correlate the results with other variables, such as IE (see Dörnyei and Ushioda 2009). Considerably fewer studies have attempted to build learners' IL2S through the use of ideal-self enhancing activities and vision-building techniques in the classroom (Dörnyei and Kubanyiova 2014). Magid and Chan (2012) were among the first to study the effects of two intervention programs, one in England and one in Hong Kong, with learners of L2 English. The program in England consisted of a series of four workshops focusing on the English language, western culture and careers as well as two counselling sessions over four months. The intervention in Hong Kong was integrated into a self-access language learning course and included two language counselling meetings over three months. Magid and Chan (2012) concluded that both

programs increased the participants' level of IL2S significantly and their confidence and motivation to learn and use English. Moreover, the clarity of the participants' goals after the programs was positively affected. In an action research study conducted in an EFL Japanese university context, Sampson (2012) analyzed the relationship between learners' possible self-images and language-learning motivation. As a data collection method, Sampson used a free-writing exercise, detailing the participants' "best-possible English self" image. The analysis showed that very few students had a clear and developed vision of their English-using self. This lack of a detailed vision could prevent or slow down the language learning process, since vision is seen as "one of the highest-order motivational forces" (Dörnyei and Kubanyiova 2014, p. 4). Mackay (2019) studied 2766 full-time university students learning English at the B2.1 level of the Common European Framework of Reference in Spain. Her study aimed at developing the learners' L2-self-images through mental imagery and incorporated the practical activities presented in Hadfield and Dörnyei's book (2013) with the same focus. Her design included two intervention groups (n = 22 and n = 25) and two control groups (n = 23 and n = 28). The intervention included visualization training, consisting of visualizations and activities designed to develop an action plan to realize the vision. The data gathered via semi-structured interviews showed that, in the intervention group, a larger number of learners "quoted intrinsic motives and the enjoyment of learning as a reason for studying English"; they also "verbalized their mental images without hesitation or need for clarification and often provided specific detail" (Mackay 2019, p. 56). In another intervention study, Wang (2020) chose to use "near peer role models" to develop an ideal French self and multilingual selves among 17 undergraduate learners. Open questionnaires, interviews and written journals were used to measure the effects of the intervention. Wang's findings show that the learners' French ideal self and their multilingual self became stronger and more concrete. He also observed a higher level of effort in French learning after the intervention.

As is the case with IL2S studies generally, the majority of the intervention studies reported so far in the literature have targeted adult learners studying English at university as an L2. This is an obvious bias in the research. As Wang (2020) points out, "research on how to foster learners' motivation towards learning a language other than English (LOTE) is still scarce". This is especially important since, according to Wang (2020), "one major barrier to the development of individuals' LOTE learning motivation is the weakening or even disappearance of their ideal LOTE self in the course of learning" (p. 2).

3. The Present Study

Taking stock of previous research, the present study attempts to fill a number of gaps. It is a mixed-method quasi-experimental study with both quantitative and qualitative analyses, but we are only reporting here on the quantitative results (see Rocher Hahlin (2020) for a full account of the qualitative data). The present study focuses on the results from an intervention over four months consisting of three IL3S enhancing pedagogical activities. The learners were pupils studying French as a second foreign language (an L3) in Sweden. So far, few intervention studies have been carried out in the field and even fewer targeting LOTE learners. We analyze the relationship between IL3S and IE, the overall effects of the intervention and momentary effects of specific activities. In addition to possible gender differences, we also consider the vitality of pupils' IL3S prior to the intervention as a possible factor for success. We also investigate to what extent the effects of the activities are the same in two different intact classes. For both theoretical and educational reasons, it is important to understand if there are differential effects of intervention programs depending on the learning context and to what extent the learners had a vivid IL3S at the outset.

3.1. Research Questions and Hypotheses

We ask the following research questions:

1. To what extent is there a correlation between the level of vividness of the ideal L3 self and the level of intended effort before, during and after the intervention?

Based on previous research on L2 English, we hypothesized that there should be a strong positive correlation between IL3S and IE.

2. In relation to the effect of the intervention,
   a. To what extent does the whole intervention increase the level of vividness of the ideal L3 self and the level of intended effort among the pupils as compared to the control group?
   b. To what extent do gender, level of vividness of ideal L3 self prior to the intervention and class moderate the effect of the intervention?

Based on previous intervention studies, our hypothesis was that the activities should enhance and develop the learners' IL3S positively compared to the control group (question 2a).

Gender effects along with level of IL3S have not been studied in intervention studies of this type previously, but IL3S has been shown to be dependent on gender, with girls scoring higher than boys (e.g., Henry and Cliffordson 2013). The level of vividness of IL3S has not yet been researched as a moderating variable, and no specific hypothesis is put forward. Finally, the same intervention was carried out in two intact classes taught by two different teachers (see below), and we ask the exploratory question if the effects are the same in both classes.

3. To what extent do the respective activities increase the level of vividness of the ideal L3 self and the level of intended effort among the pupils within the intervention group?

This research question is exploratory and carries no specific hypothesis.

3.2. Participants and Context

The data were collected in three schools in three medium-sized cities in Sweden. The school populations were mixed in terms of socio-economic and cultural backgrounds. The learners were 15-year-old pupils learning English as their first foreign language (L2) in the last nine years and French as a SFL (L3) for the previous three or four years at the time of the intervention. The pupils had started the last year of lower-secondary school, and their expected exit level in French was A2.1.

The study involved three intact classes and 58 pupils. There were two intervention classes (class 1, $n = 30$ and class 2, $n = 15$) and a control class ($n = 14$). Participation in the study was voluntary, and we relied on the agreement of school leaders, teachers and pupils in order to conduct the study. No power analysis was carried out.

Prior to the start of the intervention, baseline values for the two main dependent variables, IL3S and IE, were established in the intervention classes and in the control class. One pupil did not participate in the baseline measurement. An ANOVA revealed that there was no significant difference between the classes with respect to IL3S [$F(2, 55) = 1.052$, $p = 0.356$] or with respect to IE [$F(2, 55) = 1.232$, $p = 0.300$] at the start of the intervention. When the two intervention classes were grouped together to form the "intervention group", an independent sample t-test showed that there was no significant difference between the intervention group and the control group with respect to IL3S [$t(55) = -1.409$, $p = 0.164$] or with respect to IE [$t(55) = 1.405$, $p = 0.166$].

In the next step, all pupils were classified according to their IL3S baseline level (see Questionnaire, Appendix A). Since no previous research has considered the level of IL3S as a variable, there were no previous results to base the classification on. Therefore, cut-off points for the different levels were decided using a combination of inspection of the data and heuristics. Three levels were identified in the data, and an ANOVA showed that there was a significant difference between the three resulting groups [$F(2, 55) = 160.289$, $p = 0.000$]. Post hoc comparisons using Tukey's HSD revealed significant differences between the High group (M = 3.46 SD = 0.26 Max = 4.0 Min = 3.11), the Intermediate group (M =

2.62 SD = 0.27 Max = 3.0 Min = 2.11) and the Low group (M = 1.59 SD = 0.27 Max = 2.0 Min = 1.22). A high level means that the pupil had a very vivid IL3S prior to the intervention. Table 1 below shows the distribution of boys and girls across levels and classes. One pupil did not wish to answer the gender question.

Table 1. Gender and baseline level of ideal L3 self (IL3S) in the three classes.

Gender	Level IL3S	Intervention Class 1	Intervention Class 2	Control Class
Boys	High	1	1	2
	Intermediate	3	2	3
	Low	5	2	0
Girls	High	8	4	4
	Intermediate	10	5	5
	Low	1	1	0

The distribution of gender and level of IL3S is relatively even and in accordance with what could be expected when working with intact classes. However, it should be noted that no pupil in the control class was classified as having a low level of IL3S at baseline and only four boys were placed in the High group compared to 16 girls. At group level, an ANOVA showed that there were no significant differences between the classes with respect to IL3S prior to the intervention.

3.3. Design, Activities and Measurements

The study took place over four months and involved three activities and four measurements in the intervention classes. In the control class, no IL3S enhancing activities took place, and two measurements were carried out (see Table 2). Only measurements based on the close-ended questionnaire (see Appendix A) are reported on here. In the intervention classes, additional instruments were also used (see Table 2), but the results from these are not reported here (see Rocher Hahlin 2020).

Table 2. Activities and measurements in intervention and control classes

Period	August		September		October		November	
Activities			Act. 1 'Dream'		Act. 3 'Forum'		Act. 3 'Webquest'	
Instruments	Text + Inter	Close	Open + Inter	Close	Open + Inter	Close	Open + Inter	Close
Measurement		BL		M1		M2		M3
Intervention class 1&class 2	✓	✓	✓	✓	✓	✓	✓	✓
Control class	-	✓	-	-	-	-	-	✓

Legend: Close = close-ended questionnaire; Open = open-ended questionnaire; Inter = Interview; BL = Baseline; M = Measurement.

Three pedagogical activities were developed for the purpose of this study to enhance the learners' IL3S (see details below). The work with the activities in the respective classes was led by the pupils' regular French teachers. To minimize the teacher effect, specific criteria were used to select the three teachers: the teachers were active, qualified and experienced French teachers, dedicated to their work and had a student-centered teaching approach. In addition, the activities had been talked through with the intervention teachers during the term preceding the intervention; the procedure of the intervention was discussed, and a protocol for each activity was written collectively. While the intervention classes worked with the exact same IL3S enhancing activities, the control class worked with cultural activities based on songs or films connected to French-speaking cultures but without explicit connection to the learners' IL3S. The researcher visited the control class as often as the intervention classes to minimize the Hawthorne effect between the intervention

and control groups. After each activity, data were collected through the triangulation of three instruments: a questionnaire with close-ended questions targeting IL3S and IE, an open questionnaire (eight questions) and semi-structured interviews (eight questions), but we report only on the results from the close-ended questionnaire here (see Rocher Hahlin (2020) for a full account of the data). The pupils in the intervention classes and the control class individually completed the same questionnaire, with close-ended questions measuring IL3S and IE. This means that there were three measurements in the intervention classes (M1, M2 and M3) in addition to the baseline measure (see Table 2). The pupils in the control class completed the questionnaire only in the beginning (Baseline) and at the end of the study (corresponding to Measurement 3 in the intervention classes) (see Table 2).

- Activity 1 (duration: 3 lessons): The pupils were introduced to the French-speaking world and asked, as a concluding activity, to imagine a situation in which they were almost fluent in French and got their "dream summer job" in a French-speaking country. They were asked to describe in Swedish or in French what the experience felt like. This vision-building activity (Dörnyei and Kubanyiova 2014) was inspired by Sampson's (2012) study and adapted to teenagers.
- Activity 2 (duration: 5 lessons): This consisted of interactions in French between the Swedish pupils and French teenagers on a French-speaking online forum. The topics of the forum were films and television series. The pupils were first introduced to French expressions commonly used in chats, SMS or forums. During the next lessons, they read several messages and responded to some of them. They also created new threads on the forum to discuss in French films or series that were not already mentioned. The second activity aimed at creating an authentic contact with native speakers and hence reducing learners' potential feelings of a high level of discrepancy between their actual and ideal French selves (Higgins 1987).
- Activity 3 (duration: 10 lessons): The last activity was a webquest (i.e., an inquiry-oriented activity in which most information can be found on the Internet (Dodge 1995)), where the pupils' intercultural competence was challenged. Pupils were presented with four proposed missions: to organize a sports camp, to plan a trip to Paris for a demanding family, to open a restaurant in a French-speaking country and to organize a concert for an 18-year-old's birthday party with French-language music. French was the working language, and the goal was to help learners visualize and project themselves using French in credible French-speaking environments.

3.4. Instruments and Analysis

In this study, we focus on the results from the close-ended questionnaires targeting IL3S and IE. The close-ended questionnaire targeting IL3S had nine Likert-scale items, which were developed on the basis of a previous scale (Ryan 2009; Taguchi et al. 2009) but adapted to the context of the present study. Internal consistency was very high throughout all measurements (Cronbach's alpha > 0.90). The questionnaire targeting IE had five Likert-scale items, which were developed on the basis of Ryan (2009) and Taguchi et al. (2009) but adapted to the context of the present study. Internal consistency was high throughout all measurements (Cronbach's alpha > 0.80, but on one occasion 0.78). All alpha values are reported in Table A1 in Appendix B. Effect sizes were computed as partial eta-squared (η_p^2) for repeated measures ANOVAs and ANCOVAs. Following Cohen (1969), we interpreted small, medium, and large effects corresponding to values equal to 0.10, 0.25, and 0.40, respectively. Shapiro-Wilks tests were used to determine that criteria for normality were met for the dependent variables (IL3S and IE).

4. Results
4.1. Overall Correlation between Ideal L3 Self and Intended Effort

In relation to our first research question (see above), we analyzed the overall relationship between IL3S and IE at the different measurements. As Table 3 shows, the two constructs are highly correlated at all times in the intervention group.

Table 3. Correlations between ideal L3 self (IL3S) and intended effort (IE) (Pearson's r)—Intervention group.

	IE Baseline	IE Measurement 1	IE Measurement 2	IE Measurement 3
IL3S Baseline	0.590 **			
IL3S Measurement 1		0.698 **		
IL3S Measurement 2			0.613 **	
IL3S Measurement 3				0.706 **

Legend: ** = $p \leq 0.01$.

In the intervention group, the strength of the association between IL3S and IE increased considerably from Baseline (0.590 **) to Measurement 3 (0.706 **) at the end of intervention (see Table 3). The corresponding figures for the control group are 0.425 * at Baseline and 0.474 * at Measurement 3. Even though the two constructs were highly correlated from the start in both the intervention group and the control group, a possible interpretation of these results is that the intervention had the effect of tightening the association even further. Another observation is that the increase is not linear across the intervention period. The highest increase takes place between Baseline and Measurement 1, i.e., after Activity 1, but at Measurement 2, the strength of the association is nearly back to the Baseline level again.

4.2. Development of the Learners' Ideal L3 Self and Intended Effort during the Intervention

In the second phase, we considered the effect of the whole intervention (see research question 2a). Table 4 reports descriptive statistics for the two dependent variables, IL3S and IE, at Baseline and after each of the following measurements.

Table 4. Mean and SD for ideal L3 self and intended effort in the two groups.

Measurement	Ideal L3 Self		Intended Effort	
	Intervention Group	Control Group	Intervention Group	Control Group
Baseline	2.69 (0.73)	2.99 (0.49)	2.55 (0.63)	2.29 (0.54)
Measurement1	2.70 (0.80)	n/a	2.43 (0.74)	n/a
Measurement 2	2.73 (0.81)	n/a	2.54 (0.69)	n/a
Measurement 3	2.82 (0.83)	2.90 (0.61)	2.53 (0.82)	2.29 (0.47)

With respect to IL3S, the intervention group showed increasingly higher means throughout the intervention, whereas the control group showed a slight decrease between Baseline and Measurement 3 (note that there were no intermediate measurements in the control group). The picture is less clear with respect to IE, where the intervention group did not display any clear development. A repeated measures ANOVA comparing the Baseline measurement to Measurement 3 with Measurement (BL/M3) as the within-subjects factor and Intervention (yes/no) as the between-subjects factor showed no main effect of intervention on IL3S [$F(1, 52) = 0.567$, $p = 0.455$, $\eta_p^2 = 0.011$] or on IE [$F(1, 52) = 1.701$, $p = 0.198$, $\eta_p^2 = 0.033$]. There was no significant interaction between Measurement and Intervention with respect to IL3S [$F(1, 52) = 1.142$, $p = 0.0290$, $\eta_p^2 = 0.022$] nor with respect to IE [$F(1, 52) = 0.072$, $p = 0.790$, $\eta_p^2 = 0.001$]. There was no significant interaction between Intervention and Level of IL3S prior to the intervention (see Table 1) for IL3S [$F(1, 51) = 0.407$, $p = 0.527$, $\eta_p^2 = 0.009$] nor for IE [$F(1, 51) = 0.314$, $p = 0.578$, $\eta_p^2 = 0.007$]. Likewise, there was no significant interaction between Intervention and Gender for IL3S [$F(1, 51) = 1.392$, $p = 0.244$, $\eta_p^2 = 0.029$] or for IE [$F(1, 51) = 1.198$, $p = 0.279$, $\eta_p^2 = 0.025$].

Next, we looked separately at possible main effects of the intervention in each of the IL3S groups (High, Intermediate and Low; see Table 1). We carried out this analysis since there were no pupils in the Low group in the control class, and this bias might have affected the results of the interaction between Intervention and Level of IL3S prior to the intervention reported on above. We found a significant small main effect on IE in the High IL3S group [$F(1, 20) = 4.832$, $p = 0.041$, $\eta_p^2 = 0.203$] but not on IL3S [$F(1, 20) = 0.013$, $p = 0.909$, $\eta_p^2 = 0.001$]. No other significant main effects of the intervention were found.

As a response to research questions 2a and 2b, it can thus be observed that with respect to the quantitative measurements of IL3S and IE, there was no overall significant effect of the whole intervention apart from a small effect on IE in the group with the highest level of IL3S prior to the intervention.

In a next step and in order to study possible momentary effects of different activities within the intervention group (see research question 3), mean gain scores between measurements were computed. The mean and standard deviation of gains scores are presented in Tables 5 and 6 according to gender and to prior level of IL3S, respectively (see Tables A2 and A3 in Appendix B for the corresponding mean scores). A negative gain score in the tables implies that the mean has decreased since the preceding measurement, whereas a positive gain score implies that the mean for the variable increased in the group.

Table 5. Means and SD for gain scores of ideal L3 self and intended effort according to Gender.

Comparison	Ideal L3 Self			Intended Effort		
	All	**Boys**	**Girls**	**All**	**Boys**	**Girls**
M1 vs. BL	0.01 (0.32)	−0.14 (0.37)	0.10 (0.26)	−0.11 (0.47)	−0.39 (0.49)	0.05 (0.38)
M2 vs. BL	0.02 (0.39)	−0.17 (0.34)	0.11 (0.40)	−0.03 (0.40)	−0.25 (0.49)	0.08 (0.42)
M2 vs. M1	−0.02 (0.32)	−0.03 (0.24)	−0.02(0.37)	0.08 (0.33)	0.14 (0.33)	0.04 (0.34)
M3 vs. M1	0.04 (0.31)	0.09 (0.37)	0.00 (0.28)	0.04 (0.44)	0.17 (0.31)	−0.02 (0.49)
M3 vs. M2	0.02 (0.37)	0.06 (0.45)	0.00 (0.34)	−0.04 (0.36)	−0.02 (0.37)	−0.05 (0.36)

Legend: BL = Baseline; M = Measurement.

Table 6. Means and SD for gain scores of ideal L3 self and intended effort according to prior Level of ideal L3 self.

Comparison	Ideal L3 Self			Intended Effort		
	Low	**Inter**	**High**	**Low**	**Inter**	**High**
M1 vs. BL	−0.07 (0.28)	0.13 (0.28)	−0.12 (0.37)	−0.29 (0.28)	−0.09 (0.51)	−0.02 (0.50)
M2 vs. BL	0.04 (0.32)	0.06 (0.45)	−0.06 (0.39)	−0.09 (0.25)	−0.09 (0.44)	0.09 (0.41)
M2 vs. M1	0.08 (0.40)	−0.10 (0.34)	−0.02 (0.22)	0.20 (0.28)	−0.04 (0.40)	0.13 (0.23)
M3 vs. M1	0.16 (0.44)	−0.02 (0.32)	0.03 (0.22)	0.25 (0.21)	−0.21 (0.56)	0.18 (0.22)
M3 vs. M2	−0.04 (0.61)	0.04 (0.34)	0.05 (0.25)	0.00 (0.41)	−0.17 (0.42)	0.07 (0.22)

Legend: BL = Baseline; M = Measurement.

Table 5 shows that for both IL3S and for IE there is an initial systematic increase in gain scores among the girls at Measurement 1 (M1) as compared to Baseline (BL) and at Measurement 2 (M2) as compared to BL. At the same time, there is an equally systematic decrease among the boys for the same measurements. We ran a series of ANCOVAs with the different gain scores as DVs, Gender as IVs and baseline scores as covariate. Results showed that the difference between the boys and the girls is significant for IL3S at Measurement 1 compared to BL [$F(1,11) = 7.539$, $p = 0.010$, $\eta_p^2 = 0.181$] and at Measurement 2 compared to BL [$F(1,11) = 4.432$, $p = 0.019$, $\eta_p^2 = 0.189$]. The same comparisons are also significant for IE at Measurement 1 compared to BL [$F(1,11) = 4.039$, $p = 0.026$, $\eta_p^2 = 0.188$] and for Measurement 2 compared to BL [$F(1,11) = 4.028$, $p = 0.026$, $\eta_p^2 = 0.175$]. No other comparisons of gain scores between boys and girls turned out to be significant.

In contrast to Table 5, Table 6 does not show any clear pattern with respect to the dependent variables IL3S and IE. Descriptively, there are both initial increases in IL3S (Intermediate group) and decreases (High group and Low group), but neither of these turned out to be significant when Measurements 1 and 2 were compared to Baseline. The Intermediate group is the group that displayed the most positive gain scores after Measurement 1. We return to the observations in the discussion.

Lastly, we considered the effect of class on the gain scores in order to understand if the activities had different effects in the two classes. The descriptive results are presented in Table 7 (see Table A4 in Appendix B for the corresponding mean scores).

Table 7. Mean and SD for gain scores of ideal L3 self and intended effort according to class.

Comparison	Ideal L3 Self		Intended Effort	
	Intervention Class 1	Intervention Class 2	Intervention Class 1	Intervention Class 2
M1 vs. BL	0.7 (0.24)	−0.10 (0.42)	0.00 (0.38)	−0.30 (0.54)
M2 vs. BL	0.8 (0.29)	−0.11 (0.54)	0.08 (0.35)	−0.24 (0.41)
M2 vs. M1	−0.03 (0.21)	−0.01 (0.47)	0.09 (0.27)	0.06 (0.43)
M3 vs. M1	0.10 (0.30)	−0.06 (0.30)	0.08 (0.43)	−0.01 (0.46)
M3 vs. M2	0.06 (0.29)	−0.04 (0.48)	−0.01 (0.40)	−0.08 (0.30)

Descriptively, there is an initial systematic increase in gain scores in Class 1 when BL and Measurement 1 and Measurement 2 are compared, both for IL3S and for IE. Conversely, there is an initial systematic decrease in gain scores for the same comparisons and for both variables in Class 2. However, the differences between the two classes are only significant for the two comparisons of the IE variable $F(1, 38) = 4.778$, $p = 0.035$, $\eta_p^2 = 0.117$ (Measurement 1 compared to BL) and $F(1, 38) = 7.322$, $p = 0.010$, $\eta_p^2 = 0.158$ (Measurement 2 compared to BL).

5. Discussion

Previous research has pointed to a strong positive relation between adult learners' ideal L2 self and their intended effort to learn the language (Dörnyei and Chan 2013). Dörnyei and Chan (2013) found a correlation of 0.68 for the ideal English self and 0.67 for the ideal Mandarin self. The correlation coefficients found in the present study are very similar (ranging from 0.59 at Baseline to 0.71 at Measurement 3) and show that this relationship is equally valid and strong in adolescent learners learning French as their L3 (see research question 1). The results of the present study can thus be seen as a validation of a positive relationship between the two constructs, but with data from L3 and in an entirely different setting. The correlation coefficients in the intervention group show that the strength of the association between IL3S and IE is higher after the intervention than before. However, the increase is not linear, and one possible interpretation is that some activities (e.g., Activity 1) could lead to an even tighter association between IL3S and IE. In our interpretation this seems logical. The activities targeted the enhancement of the pupils' vision of themselves as successful future learners and users of French as a foreign language, but they also lead to a closer association between their language self and the amount of work they are prepared to do in order to learn the language. After a "successful" IL3S activity, the two dimensions become more integrated in the pupils' minds. However, the issue has not been studied before, and it is also possible that the observed varying strength of the association between IL3S and IE is an artefact of the method used in this study. More research is needed to better understand which factors modulate the strength of this association over time.

Even though only the intervention group saw steadily increasing means of IL3S during the semester, the intervention as a whole did not significantly affect the learners' IL3S (see research question 2a). Students' lack of "future-self-immersion" experiences (Dörnyei and Kubanyiova 2014, p. 47) and the comparatively low intensity of the activities may have contributed to a weak global effect of the intervention program. The design of the intervention was chosen in order to disturb the regular teaching flow as little as possible. The activities demanded up to ten lessons per month (Activity 3), which seemed to be the limit to what we could ask of the teachers. However, Dörnyei (2009) stresses the role of a regular and repeated activation of the ideal language self to "keep the vision alive" (p. 37), and according to Hessel's (2015) data, the frequency of the IL2S activation is the most significant predictor of the students' IE. A high intensity of ideal L3 self enhancing activities might therefore be especially important for learners with a low level of IL3S, who may think of themselves as future L3 language users for the first time. Dörnyei and Chan (2013) emphasized the fact that motivation also depends on learners' ability to create

mental imagery. This process is obviously not automatic. In our study, we did not find any significant interaction between intervention and level of IL3S prior to the intervention when looking at all the participants, but we did find a significant effect of the intervention (on intended effort) when considering the group with the highest level of IL3S prior to the intervention (High group) (see research question 2b). Following Higgins (1987), the discrepancy between a learner's current self and ideal self should not be too large to avoid feeling demotivated. Although the results are not clear-cut in our study, it seems reasonable to believe that the "gap" between the current self and the ideal self was too important in the Low group for the IL3S intervention to have any effect, and consequently their intentions to work harder did not change either during the intervention period. Interpreting these results along the lines of Cho (2020), it could be that "access" to the IL3S was too difficult for the learners in the Low group, who at the start were too far from engaging with their ideal French self. Working with three IL3S enhancing activities was not enough to see a significant positive change in the quantitative data. However, since the data are not clear, more research on this issue is needed.

As a complement to looking at the cumulative effect of the whole intervention, we also considered momentary effects of each activity by computing and comparing gain scores between measurements (see research question 3). A finding in this analysis was the observation that the activities seemed to have different effects. The strongest positive effect resulted arguably from the first activity, which was a vision-building activity where the pupils were asked to envision their dream summer job in a French-speaking environment and where they were interacting fluently in French with co-workers, etc. Writing an individual text about a desired future French self in a self-chosen language gave pupils the opportunity to immerse themselves in a positive vision. Adolescence is a time when young people try different identities, and this first activity may have stimulated particularly well a new, plausible and desired French future self, partly because it was an individual task where the pupils could focus on themselves. In contrast, the pupils worked in pairs or small groups during the second and third activity. Moreover, the fact that the second and third activities were in French, with the intention of enhancing the perception among the pupils that their level of French proficiency was already sufficient in order to carry out complex tasks, might also have been a distracting feature, leading to more resources being allocated to linguistic issues than expected. This could in turn have had the consequence that some of the intended effect of enhancing IL3S was lost in Activities 2 and 3.

It is also interesting to see that the effect of the first activity was clearly mediated by gender. The results show that gain scores for both IL3S and IE at Measurement 1 increased significantly compared to the baseline among the girls and decreased among the boys. When studying the effects of gender on ideal language self, Henry and Cliffordson (2013) found gender differences in the ideal L3 self of Swedish learners. The authors suggest that "females are more likely to imagine themselves involved in relationship with others and because of it, their IL3S may be more likely to feature imagined instances of reciprocated interaction with target language speakers" (Henry and Cliffordson 2013, p. 286). In fact, Activity 1 targeted exactly such instances in the feature where the pupils would be working in a French-speaking environment and interacting with different people in French.

Overall, the results of this study suggest a relationship between the Swedish pupils' ideal French self and their desire to put in more effort to improve their knowledge of French. The findings also suggest that girls, and probably in particular those with a prior vivid ideal French self, benefited the most from the intervention. Visualizing French future selves may be key to enhancing pupils' motivation to learn French. Since gender and the prior level of IL3S seem to be significant variables, visualization training could be introduced to the learners as a possible motivational strategy for foreign language learning, with particular attention to boys and learners with a low ability to imagine themselves as future speakers of the target language, since these pupils may not gain immediately as much as others. They also may need to practice visualization techniques first. By encouraging students to explore their own visions through guided imagery techniques, language teachers could

help pupils with limited connections to French-speaking cultures outside the classroom to create a stronger tie with French and possibly prevent pupils from dropping out of their second foreign language classes. Adaptable imagery workouts could be integrated into language teaching to guide learners towards goals, strategies and tasks and hopefully transform their visions into concrete learning actions (Dörnyei and Kubanyiova 2014; Hadfield and Dörnyei 2013). The strategy of stimulating desired future states and linking the target language to what students privately wish to become could complement other motivational strategies used by the language teacher (Dörnyei 2001). For the future study of French in Sweden, a language that currently suffers from a popularity deficit, this seems very important.

Limitations of the Present Study

The most important limitations of this quasi-experimental study are associated with the choice of working with three intact language classes. Due to practical reasons, we could not randomly assign the pupils to the intervention group or the control group, and we had to limit the number of intervention activities so as not to disturb the regular teaching too much. One consequence was that there were no learners with a low level of IL3S prior to the intervention in the control class. The difference between the intervention and the control groups after the intervention might have been clearer and more important if all three classes had pupils from each IL3S group. Another shortcoming is that the High group consisted almost exclusively of girls. With the current data, it is therefore difficult to disentangle the effect of level of IL3S prior to the intervention from gender.

6. Conclusions and Direction for Future Research

This study examined the effects of an intervention program consisting of three IL3S enhancing activities with 15-year-old pupils studying French as an L3 in Sweden. Few intervention studies have been carried out in the field and very few target LOTEs. The study confirms previous research on L2 English: that IL3S and IE are closely associated. However, compared to a control group, the pupils in the intervention group did not significantly increase the vividness of their IL3S during the intervention, nor did we find an overall effect on IE. Instead, one of the main contributions of the study is evidence pointing to a number of differential effects of the intervention program. First, our results suggest that pupils with high levels of IL3S benefitted the most from the intervention, but the data are not conclusive. We argue that learners with a low level of IL3S had difficulty accessing their self-images, meaning that their IL3S could not be stimulated with the relatively few activities used in the intervention. Future studies should be conducted to confirm the role of the level of IL3S as a factor in intervention studies. Moreover, the length and the intensity of future intervention programs should be increased to see if it is indeed possible to "reach" learners who are far from having a vivid IL3S prior to an intervention or who have no visualization experience. A second result shows that the first activity carried out in the L1 of the pupils (Swedish) had the largest effect. We argue that, for some of these A2.1-level learners of French, working in the target language (which was the case in the subsequent activities) might have put too much emphasis on linguistic aspects, leading to a reduced effect on IL3S enhancement. Future research should look for possible trade-off effects between working in the target language and enhancement of the IL3S, preferably with learners at different levels of proficiency. This result could also be an effect of order, with the first activity having a greater impact than the following ones; order effects should also be addressed in future studies. Finally, we also found a gender effect, where girls seemed to have benefitted the most from the first activity. This result is in line with previous research on IL3S, but is a new finding in intervention studies.

Overall, the quantitative data presented in this paper provide some support to the idea that creating opportunities for language students to explore and strengthen their possible language selves can enhance motivation among them. Female students and students with a vivid ideal language self seem to be the most able to benefit from the activities, which

in turn might prevent them from abandoning their second foreign language studies. This paper shows that researchers and teachers alike should probably not expect a homogenous effect across all pupils. However, the reasons why male students and students with a weak ideal French self do not seem to benefit from the intervention in the way we would have hoped requires further research.

Appendix A

Questionnaire
You and the French Language

We would like to ask for your help in order to better understand students' learning of French. It would help us a lot if you could answer the following questions. It is not a test; therefore, there are no correct or incorrect answers, just yours. The most important thing is that you answer honestly so that your answer is as close to reality as possible. Thank you very much for your help!

You answer the questions by choosing a number between 1 and 4.

1 = Strongly disagree, 2 = Disagree, 3 = Agree and 4 = Strongly agree.

	☹			☺	IL3S/IE
A—I can easily imagine situations, abroad or in Sweden, where I could use French.	1	2	3	4	IL3S
B—I like the image of myself where, in a few years, I discuss with international friends or colleagues without problems in French.	1	2	3	4	IL3S
C—I put a lot of effort into developing my skills in French.	1	2	3	4	IE
D—I would love to go on a language exchange with my class to a French-speaking country to get to know French-speaking teenagers.	1	2	3	4	IL3S
E—I would like to watch movies, listen to music, surf the web in French more often (outside the classroom).	1	2	3	4	IE
F—I can see myself as a person who can talk and understand French in the future.	1	2	3	4	IL3S
G—If I knew French very well, I could imagine studying or working for a certain period in a French-speaking country.	1	2	3	4	IL3S
H—I often listen to French in my spare time (music, movies...).	1	2	3	4	IE
I—I can see myself living abroad in the future and speaking French with the people who live there.	1	2	3	4	IL3S
J—I really want to continue with French in high school.	1	2	3	4	IE
K—I really like the idea that in the future I could use French as easily as my mother tongue.	1	2	3	4	IL3S
L—I think it would be cool if I could easily take some university courses in a French-speaking country.	1	2	3	4	IL3S
M—I think it is worth putting in a lot of work to be better in French and be able to use that language more.	1	2	3	4	IE
N—I like the idea that people around me see me as a person who will be able to use French fluently in the future.	1	2	3	4	IL3S

Thank you very much for your help!

Appendix B

Table A1. Cronbach's alpha for ideal L3 self and intended effort at different measurements.

	Ideal L3 Self (9 Items)	Intended Effort (5 Items)
Baseline	0.902	0.766
M 1	0.928	0.863
M 2	0.935	0.823
M 3	0.933	0.860

Legend: M = Measurement.

Table A2. Mean and SD of ideal L3 self and intended effort according to gender.

Measurement	Ideal L3 Self			Intended Effort		
	All	**Boys**	**Girls**	**All**	**Boys**	**Girls**
Baseline	2.68 (0.74)	2.24 (0.77)	2.89 (0.59)	2.55 (0.64)	2.30 (0.62)	2.66 (0.62)
M 1	2.70 (0.80)	2.10 (0.73)	3.05 (0.63)	2.41 (0.74)	1.91 (0.60)	2.69 (0.67)
M 2	2.73 (0.82)	2.07 (0.79)	3.06 (0.61)	2.52 (0.69)	2.06 (0.54)	2.76 (0.65)
M 3	2.81 (0.84)	2.20 (0.80)	3.09 (0.72)	2.52 (0.83)	2.05 (0.61)	2.74 (0.83)

Legend: M = Measurement.

Table A3. Mean and SD for ideal L3 self and intended effort according to level of IL3S.

Measurement	Ideal L3 Self			Intended Effort		
	Low	**Intermediate**	**High**	**Low**	**Intermediate**	**High**
Baseline	1.59 (0.27)	2.61 (0.26)	3.48 (0.28)	1.78 (0.25)	2.55 (0.44)	3.04 (0.55)
M 1	1.47 (0.35)	2.77 (0.38)	3.37 (0.50)	1.49 (0.38)	2.48(0.46)	3.02 (0.59)
M 2	1.63 (0.38)	2.68 (0.48)	3.42 (0.52)	1.69 (0.43)	2.47(0.42)	3.13 (0.54)
M 3	1.61 (0.52)	2.80 (0.40)	3.47 (0.57)	1.70 (0.47)	2.32 (0.66)	3.20 (0.64)

Legend: M = Measurement.

Table A4. Mean and SD for ideal L3 self and intended effort according to class.

Measurement	Ideal L3 Self		Intended Effort	
	Intervention Class 1	**Intervention Class 2**	**Intervention Class 1**	**Intervention Class 2**
Baseline	2.70 (0.68)	2.64 (0.85)	2.59 (0.55)	2.46 (0.78)
M 1	2.77 (0.71)	2.58 (0.96)	2.54 (0.64)	2.19 (0.88)
M 2	2.81 (0.80)	2.57 (0.86)	2.66 (0.60)	2.25 (0.81)
M 3	2.98 (0.74)	2.52 (0.96)	2.73 (0.71)	2.17 (0.92)

Legend: M = Measurement.

References

Al-Hoorie, Ali H. 2018. The L2 motivational self system: A meta-analysis. *Studies in Second Language Learning and Teaching* 8: 721–54. [CrossRef]

Boo, Zann, Zoltán Dörnyei, and Stephen Ryan. 2015. L2 Motivation Research 2005–2014: Understanding a Publication Surge and a Changing Landscape. *System* 55: 145–57. [CrossRef]

British Council. 2018. Language Trends 2018. Language Teaching in Primary and Secondary Schools in England. Survey Report. Available online: https://www.britishcouncil.org/sites/default/files/language_trends_2018_report.pdf (accessed on 12 March 2021).

Busse, Vera. 2017. Plurilingualism in Europe: Exploring attitudes toward English and other European languages among adolescents in Bulgaria, Germany, the Netherlands, and Spain. *The Modern Language Journal* 101: 566–82. [CrossRef]

Busse, Vera, Jasone Cenoz, Nina Dalmann, and Franziska Rogge. 2020. Addressing Linguistic Diversity in the Language Classroom in a Resource-Oriented Way: An Intervention Study with Primary School Children. *Language Learning* 70: 382–419. [CrossRef]

Cho, Minyoung. 2020. An investigation into learners'ideal L2 self and its motivational capacity. *Reading and Writing* 33: 2029–48. [CrossRef]

Cohen, Joshua. 1969. *Statistical Power Analysis for the Behavioral Sciences*. New York: Routledge Academic.

Csizér, Kata. 2019. The L2 Motivational Self System. In *The Palgrave Handbook of Motivation for Language Learning*. Edited by Martin Lamb, Kata Csizér, Alastair Henry and Stephen Ryan. Basingstoke: Palgrave, pp. 71–93.

Dodge, Bernie. 1995. WebQuests: A technique for internet-based learning. *Distance Educator* 1: 10–13.

Dörnyei, Zoltán. 2001. *Motivational Strategies in the Language Classroom*. Cambridge: Cambridge University Press.

Dörnyei, Zoltán. 2009. The L2 motivational self system. In *Motivation, Language Identity and the L2 Self*. Edited by Zoltán Dörnyei and Ema Ushioda. Bristol: Multilingual Matters, pp. 9–42.

Dörnyei, Zoltán, and Ema Ushioda. 2009. *Motivation, Language Identity and the L2 Self*. Bristol: Multilingual Matters.

Dörnyei, Zoltán, and Ema Ushioda. 2011. *Teaching and Researching Motivation*, 2nd ed. Harlow: Longman.

Dörnyei, Zoltán, and Letty Chan. 2013. Motivation and vision: An analysis of future L2 self images, sensory styles, and imagery capacity across two target languages. *Language Learning* 63: 437–62. [CrossRef]

Dörnyei, Zoltán, and Magdalena Kubanyiova. 2014. *Motivating Learners, Motivating Teachers: Building Vision in the Language Classroom*. Cambridge: Cambridge University Press.

Eurobarometer. 2012. *Europeans and Their Languages*. Special Eurobarometer 386. Report. Brussels: Eurobarometer.

European Commission. 1995. *White Paper on Education and Training—Teaching and Learning—Towards the Learning Society*. COM (95) 590 Final. Brussels: European Commission.

European Commission. 2011. *First European Survey on Language Competences*. Final Report. EC: Education and Training. Brussels: European Commission.

European Commission. 2014. *Languages in Education and Training: Final Country Comparative Analysis*. Report Education and Training. Brussels: European Commission.

Gayton, Angela M. 2016. Perceptions about the dominance of English as a global language: Impact on foreign-language teachers' professional identity. *Journal of Language, Identity, and Education* 15: 230–44. [CrossRef]

Granfeldt, Jonas, and Malin Ågren. 2019. Évolution de l'étude de la langue française à l'école suédoise: les tendances de 2000 à 2018. *Synergies Pays Scandinaves* 14: 47–59.

Granfeldt, Jonas, Susan Sayehli, and Malin Ågren. 2020. Trends in the Study of Modern languages in Swedish Lower Secondary School (2000–2018) and the Impact of Grade Point Average Enhancement Credits. *Education Inquiry*. [CrossRef]

Hadfield, Jill, and Zoltán Dörnyei. 2013. *Motivating Learning*. Harlow: Pearson.

Henry, Alastair. 2012. L3 Motivation. Ph.D. dissertation, Gothenburg Studies in Educational Science, Gothenburg, Sweden.

Henry, Alastair, and Christina Cliffordson. 2013. Motivation, gender, and possible selves. *Language Learning* 63: 271–95. [CrossRef]

Hessel, Gianna. 2015. From vision to action: Inquiring into the conditions for the motivational capacity of ideal second language selves. *System* 52: 103–14. [CrossRef]

Higgins, Edward T. 1987. Self-discrepancy: A theory relating self and affect. *Psychological Review* 94: 319–40. [CrossRef]

Karimi, Mohammad Nabi, and Samane Saddat Hosseini Zade. 2019. Teachers' use of motivational strategies: Effects of a motivation-oriented professional development course. *Innovation in Language Learning and Teaching* 13: 194–204. [CrossRef]

Kim, Tae-Young, and Yoon-Kyoung Kim. 2011. The effect of Korean secondary school students' perceptual learning styles and ideal L2 self on motivated L2 behavior and English proficiency. *Korean Journal of English Language and Linguistics* 11: 21–42.

Lamb, Martin. 2012. A self system perspective on young adolescents' motivation to learn English in urban and rural settings. *Language Learning* 62: 997–1023. [CrossRef]

Mackay, Jessica. 2019. An ideal second language self intervention: Development of possible selves in an English as a Foreign Language classroom context. *System* 81: 50–62. [CrossRef]

Magid, Michael, and Letty Chan. 2012. Motivating English learners by helping them visualize their Ideal L2 Self: Lessons from two motivational programmes. *Innovation in Language Learning and Teaching* 6: 113–25. [CrossRef]

Markus, Hazel, and Paula Nurius. 1987. Possible selves: The interface between motivation and the self-concept. In *Self and Identity: Psychological Perspectives*. Edited by M. Yardley Krysia and Terry Honess. Chichester: John Wiley and Sons, pp. 157–72.

Rocher Hahlin, Céline. 2020. *La Motivation et le Concept de Soi: Regards Croisés de l'élève et de l'enseignant de Français Langue Étrangère en Suède*. Études romanes de Lund 109. Lund: Université de Lund.

Ryan, Stephen. 2009. Self and identity in L2 motivation in Japan: The ideal L2 self and Japanese learners of English. In *Motivation, Language Identity and the L2 Self*. Edited by Zoltán Dörnyei and Ushioda Ema. Clevedon: Multilingual Matters, pp. 120–43.

Sampson, Richard. 2012. The language-learning self, self-enhancement activities, and self perceptual change. *Language Teaching Research* 16: 317–35. [CrossRef]

Taguchi, Tatsuya, Michael Magid, and Mostafa Papi. 2009. The L2 motivational self system amongst Chinese, Japanese, and Iranian learners of English: A comparative study. In *Motivation, Language Identity and the L2 Self*. Edited by Zoltán Dörnyei and Ushioda Ema. Clevedon: Multilingual Matters, pp. 66–97.

Tholin, Jörgen. 2017. State Control and Governance of Schooling and Their Effects on French, German, and Spanish Learning in Swedish Compulsory School, 1996–2011. *Scandinavian Journal of Educational Research* 63: 317–32. [CrossRef]

Ushioda, Ema. 2011. Language learning motivation, self and identity: Current theoretical perspectives. *Computer Assisted Language Learning* 24: 199–210. [CrossRef]

Ushioda, Ema. 2020. *Language Learning Motivation*. Oxford: Oxfor University Press.

Wang, Tianyi. 2020. An exploratory motivational intervention on the construction of Chinese undergraduates' ideal LOTE and multilingual selves: The role of near peer role modeling. *Language Teaching Research*, 1–25. [CrossRef]

languages

Understanding High Performance in Late Second Language (L2) Acquisition—What Is the Secret? A Contrasting Case Study in L2 French

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Abstract: Adult L2 acquisition has often been framed within research on the Critical Period Hypothesis, and the age factor is one of the most researched topics of SLA. However, several researchers suggest that while age is the most important factor for differences between child and adult SLA, variation in adult SLA is more dependent on social and psychological factors than on age of onset. The present qualitative study investigates the role of migratory experience, language use/social networks, language learning experience, identity and attitudes for high performance among Swedish L1 French L2 users in France. The study constitutes an in-depth thematic analysis of interviews with six high-performing individuals and four low-performing individuals. The main results show that the high performers differ from the low performers on all dimensions, except for attitudes towards the host community. High performers are above all characterized by self-reported language aptitude and an early interest in languages, which appears to have led to rich exposure to French. Also, they exhibit self-regulatory behaviors and attribute importance to being perceived as a native speaker of French—both for instrumental and existential reasons.

Keywords: migration; L2 French; adult SLA; high performance; individual factors

1. Introduction

It is a well-known fact, both from research and our everyday experiences, that adult language learners differ remarkably in how well they come to master additional languages. Hyltenstam (2018) argues that while the difference between pre-puberty and post-puberty learners in second language acquisition is largely related to maturational constraints, differences in outcomes among adult second language learners are affected o a much larger extent by factors such as aptitude, motivation and practice. For instance, Granena and Long (2013) find that after age, aptitude is the strongest explanatory factor for adult SLA. However, several researchers argue for the importance to study additional individual factors to understand the complexity of adult SLA and have long stressed the need to examine the effect of cognitive, affective and social factors among adult second language learners (Douglas Fir Group 2016; Kinsella and Singleton 2014; Moyer 2014; Muñoz and Singleton 2011). However, few studies have set out to investigate this in a migratory context, where circumstances for high-level L2 attainment are perhaps the most advantageous.

Since the classical study of Naiman et al. (1978) on The Good Language Learner, conducted on 72 secondary school pupils in Canada, researchers have from time to time come back to the question of what characterizes successful second language learners. A recent attempt was made by Muñoz (2014), who also searched for characteristics of high-achievers vs. low-achievers in a formal learning context among university students of English. She considered the learners' starting age, but also other contextual and affective factors. Her study shows that starting age is important for some, but that aptitude, motivation and intensive language contact seem to play important roles for others. She concludes that

second language long-term attainment is most likely the result of interaction between many factors. Within the realm of adult second language acquisition, a few attempts have been made to single out what characterizes exceptional adult language learners. In a qualitative meta-analysis, Moyer (2014) concludes that "learner engagement and self-regulation" (p. 418) characterize the adult learners who have ended up sounding nativelike in their L2 despite a late age of onset. As mentioned above, few studies are set in a migratory context, yet research conducted in a Study Abroad context provides evidence for the importance of social and psychological factors. For example, Mitchell et al. (2017) presented in-depth case studies of Anglophone participants who made the most progress in their target language (French or Spanish). The authors observed that relationships sustained in the target language promoted L2 development as well as personality characteristics such as flexibility and social adaptability for some, and a "strategic vision of the L2 self" (p. 245) for others. These results could potentially also have a bearing on the results of long-term residents abroad, who are the participants in focus of the present study.

This study is part of the mixed method research project "Global Mobility and Adult Second Language Acquisition: the Importance of Social and Psychological Factors" (Vetenskapsrådet 2017-01196). It constitutes a qualitative follow-up study to a preceding quantitative study (Forsberg Lundell et al. forthcoming) (see Section 2.1). The aim of the present qualitative, in-depth study is to investigate social and psychological factors in a more detailed manner, in order to understand what factors facilitate high L2 performance later in life. This is done through a thematic analysis of deep interviews with six linguistically high-performing and four linguistically low-performing individuals. A fundamental premise for the present study is that adult L2 acquisition can be explained by the interaction of multiple factors. Accordingly, the paper takes a bird's eye view in mapping several factors. This approach allows for a comparison of the relative weight of these factors, but has the inconvenience that it does not allow for any in-depth study of each factor. The research question for the present study is: What factors emerge that are decisive for attaining very high levels of second language proficiency in late L2 acquisition, and more specifically in the migratory context of France?

2. Background

In the present section, we will first account for the preceding quantitative study and the social and psychological factors identified as most important in that study. Then, we will provide a literature review of the factors that were identified as relevant in this follow-up study.

2.1. The Preceding Quantitative Study: Forsberg Lundell et al. (forthcoming)

The quantitative study preceding the present study investigated how individual factors relate to *perceived nativelikeness* (cf. Abrahamsson and Hyltenstam 2009) in late L2 learners of French (Swedish L1) (N = 62) with a minimum length of residence (LOR) of 5 years in France. Perceived nativelikeness was operationalized as the number of native speaker evaluators out of 10 perceiving a person to be a native speaker of their own language. The individual factors included were:

- *Language aptitude*, measured by the LLAMA test (Meara 2005). This test includes four different components of aptitude: vocabulary learning (LLAMA B), sound recognition (LLAMA D), sound-symbol correspondence (LLAMA E) and grammatical inferencing (LLAMA F).
- *Personality*, measured by the Multicultural Personality Questionnaire (MPQ) (van der Zee et al. 2013). The MPQ measures an individual's capacity to adjust in a new cultural setting.
- *Acculturation*, measured by the Vancouver Index of Acculturation (VIA) (Ryder et al. 2000), measuring cultural orientation to heritage and host cultures, in our case the dimensions VIA Sweden and VIA France.

- *Target language engagement*, measures the language use of the participants, questionnaire developed by (McManus et al. 2014).
- *Social networks*, measures the number of social relations in the L2 of the participants, questionnaire developed by (McManus et al. 2014).

A hierarchical multiple regression analysis showed that both the subtest LLAMA D (targeting phonetic memory) and VIA Sweden (one of the acculturation variables) were reliable predictors of perceived nativelikeness and the effects were medium-sized in relation to other studies on individual factors. The results mean that the better the phonetic memory of a person and the weaker his/her affiliation with Sweden, the higher the likelihood for him/her being perceived as a native speaker. In addition, the study also showed that the participants in the present population were generally high-proficient speakers. They showed little individual variation on a productive collocation test, a test developed to gauge high levels of L2 proficiency (Forsberg Lundell et al. 2018). Many scored at ceiling on this test and it was accordingly not possible to include the scores from this test in the regression analysis including individual factors.

2.2. Social and Psychological Factors Included in the Present Study

In the preceding study, language aptitude and acculturation, investigated along other individual factors, were assessed from a quantitative perspective. However, there are certainly factors influencing the language learning trajectory that cannot be gauged easily in questionnaires. In the present study, five different psychological and social factors were selected as targets for the deep interview (described in Section 3.3). As stated above, research on long-term residents and individual factors is scarce. In the present study, factors were selected to a large extent based on the studies by Moyer (2004, 2014) cited above, especially Moyer (2004), which investigates long-term residents, nativelike phonology and individual factors in L2 German, both a research topic and learning context similar to ours. In addition, we also draw on findings from Study Abroad research, which also constitutes adult SLA in a naturalistic context. In this field, considerable attention has been paid to the role of individual factors for the linguistic development during Study Abroad (e.g., Mitchell et al. 2017). Some of these factors were targeted through questionnaires and tests in the quantitative study, but others, considered most apt to study through the narratives of the participants, have been added in the present study. Below, the investigated factors are defined, and relevant research results are reviewed.

2.2.1. Migratory Experience

The term "migratory experience" is widely used in the field of migration studies (sociology, anthropology, etc.) and has hitherto been less explored within mainstream SLA. One exception is Diskin and Regan (2015), who use "migratory experience" to refer to motive for migration in their study—they investigate whether being a chain migrant, economic migrant or cultural migrant has an impact on the acquisition of sociolinguistic competence and conclude that cultural migrants attain a more target-like use of a particularly Irish discourse marker than the other categories of migrants. In the present study, "motive for migration" is a component of migratory experience, but is not as narrowly defined. Instead, we draw on the work of De Fina and Tseng (2017) and use the term in a wider sense, namely to include the learners' experience of migrating to the host community at large, including migratory motive, occupation, social circumstances and personal experiences. An investigation of learners' migratory experience is here assumed to shed light on circumstances and experiences which may have influenced the L2 learning outcomes.

2.2.2. Language Use/Social Networks

Individuals vary with respect to how frequently and in what circumstances they use the target language. Several studies find that rich target language exposure and contact with native speakers is necessary to attain a native-like L2 speech. For example, in a German context, Moyer (2004) found a strong and significant correlation (r. 73) between

self-reported amount of social interaction with native speakers and degree of perceived nativelikeness. Participants were 25 immigrants from diverse nations with a mean LOR of 6 years. These results align with Dollmann et al. (2020), whose study included 1843 adolescents with immigrant background with a varying age of arrival in Germany. The authors found an especially strong effect of L2 exposure for accent-free speech in L2 German among immigrants who arrived in Germany at the age of 10 or later, indicating that L2 exposure and contact with native speakers (and higher cognitive abilities) may compensate for a later age of onset. The extent to which the adult L2 learner uses the L2 is naturally influenced by whether she uses other languages in her everyday life. Flege et al. (1997) observed that among a group of Italians who immigrated to Canada at around the age of 6, those who reported using Italian relatively frequently in their everyday lives spoke with a significantly stronger foreign accent than Italians who rarely spoke Italian. These results are in line with Moyer's (2014) observation regarding learners who have attained nativelike levels with respect to L2 phonology. Several of them report using their L1 minimally, in addition to using the L2 frequently.

Given that an L2 learner's access to social interaction in the L2 is partly determined by her social relationships, researchers inspired by Milroy's (1980) work in sociolinguistics have also investigated L2 users' social networks as a way to understand L2 learning outcomes. Research has been carried out in a Study Abroad context where links have been found between various social network variables and various indicators of L2 performance (e.g., Dewey et al. 2013; Mitchell et al. 2017). In a migratory context, Lybeck (2002) found that those among the nine Americans who participated in the study, who forged social networks including native speakers of Norwegian were the ones who achieved higher levels of native-like pronunciation. Being married to a native speaker helped gaining access to Norwegian-speaking networks, yet the two highest performers had also created their own social ties with locals. In sum, patterns of language use and social networks thus appear to be influential in forging L2 speech.

2.2.3. Language Learning Experience

Just like "migratory experience", "language learning experience" is an encompassing term in the present study. In the literature, it is sometimes used only to refer to prior experience of language learning (e.g., years of formal study of the language). This aspect is included in our definition as well, but we also include the learner's subjective language learning experience, for example experiences of motivation, enjoyment, frustration and difficulties (cf. Dewaele et al. 2016). Emotional responses to the language learning process may impact the learner's inclination to invest in the language learning process (on the role of emotion, see, e.g., Dewaele et al. 2018). That self-perceived language aptitude and emotions conspire to shape an individual's motivation to invest in language learning was found by Busse and Williams (2010) and Stolte (2015). They sought to understand what characterized the relatively few anglophone students who chose to pursue advanced studies of German in England. They found that the targeted language students enjoyed language learning at school and perceived that they had an aptitude for this activity (what we call "self-reported aptitude" in our analysis). Success and ease then lead to the creation of intrinsic motivation, according to these researchers. These studies do not explain high performance directly, but are nevertheless linked to our pursuit to understand L2 learning later in life.

Last, another component of our category "language learning experience", is the extent to which the learners report *agency* (see, e.g., Duff and Talmy 2011) in relation to the language learning process. In language socialization research or socio-cultural theory, agency means that "learners are agents who may contest or transform as well as accommodate practices others attempt to induct them into" (Duff and Talmy 2011, p. 110). Related to the notion of agency is the concept of *self-regulation* (Bandura 1991), although these two stem from different theoretical traditions. Self-regulated learners have a capacity to control their behavior to improve learning (Dörnyei 2010, p. 256).

2.2.4. Identity

Identity is a multi-faceted concept, which can refer to many different conceptions within the field of SLA. It is often stressed within the social sciences that people do not have one, sole identity, but rather multiple identities related to their professional status, their national affiliation, their sexual orientation, their interests and so on. As Norton (2014) acknowledges, identity has come to be viewed from a more dynamic point of view, as co-constructed rather than static or monolithic and also as a site for struggle. In the present study, the thematic analysis is driven by pre-defined categories, but it is also data driven. The identity-related questions in the interview focus on identity in terms of cultural orientations, which is how identity is conceptualized in the VIA acculturation questionnaire (Ryder et al. 2000) used in the preceding quantitative study. Identity in the present study is thus similar to what Lybeck (2002) labels "cultural identification". In her study on nine American women learning L2 Norwegian in Norway, she found that the participants who displayed a stronger cultural identification with Norway and Norwegians also attained a more targetlike pronunciation. In a similar vein, research by Gatbonton and Trofimovich (2008) has shown that ethnolinguistic affiliation has an impact on targetlike pronunciation.

Another aspect of the identity construct relates to the participants' identity as second language users. Benson et al. (2013), interested in identity development in Study Abroad, speak of second language identity as "incorporating experiences of second language learning and use in an ongoing sense of who we are" (p. 42). More precisely, their notion of *linguistic self-concept* will be a relevant tool to make sense of our participants' identity narratives. This notion subsumes affiliations to the different languages one knows, beliefs about language learning and self-assessment and perceptions of the self. Interestingly, Lybeck (2002) observes a connection between cultural identification and linguistic self-concept. The participants in her study who had a strong cultural identification and those who had a weaker cultural identification displayed different linguistic self-concepts: those who had a strong cultural identification underlined the felt obligation to learn the language of the new culture. Also, they accepted that speaking this language made them feel somewhat different and their self was able to endure this slight change. Becoming a proficient L2 speaker was accordingly part of these participants' identity. This was not the case for speakers with low degrees of cultural identification.

2.2.5. Attitudes

The notion of "attitudes" is, similarly to "identity", a multi-faceted concept within SLA. In the present paper, "attitude" is conceptualized as "attitudes towards the target group". Attitudes towards the target group is a component both in Gardner's socio-educational model (e.g., Gardner 2006) and in Schumann's Acculturation model (Schumann 1976) and is argued by several scholars in the socio-psychological tradition to be an important aspect of the L2 learning process (MacIntyre and Charos 1996; Kormos et al. 2011). The underlying assumption in the cited models is that language learner's attitudes towards the target language group influence the extent to which she is willing to engage with the host community and the language learning process. Scholars investigating language learning in a Study Abroad context do find that the attitudes learners hold towards the target community impact their propensity to participate in social activities including members of the host community and to expand efforts to learn the target language (Isabelli-García 2006; Kinginger 2013). It thus seems relevant to include this variable in our mapping of the factors that may influence L2 attainment.

3. Materials and Methods

3.1. Research Design and Procedure

The study is based on a thematic analysis of in-depth interviews with two contrasting cases of learners. The two cases were represented by 10 learners who could be qualified linguistically *high*-performing and linguistically *low*-performing individuals on the basis of their linguistic performance in the preceding quantitative study (see Forsberg Lundell et al.

forthcoming). These two cases will be referred to as "high performers" and "low performers". Such a contrasting approach makes it possible to single out what characteristics and experiences are specific to learners who have attained high levels of L2 proficiency (see also Muñoz 2014).

Ten participants were selected from the pool of 62 participants in the preceding quantitative study (see Section 2.1), based on their linguistic performance on the basis of (1) a productive collocation test, targeting verb-noun collocations such as *commettre un crime* (elaborated and validated by Forsberg Lundell et al. 2018), (2) the number of NS evaluators judging them as native speakers of French (following the procedure of Abrahamsson and Hyltenstam 2009). We used an extreme sampling strategy, meaning that we selected those participants who had obtained the highest versus the lowest scores on the two linguistic measures. We started the sampling procedure by ranking the 62 participants according to their linguistic performance and we decided to let five participants represent each case, meaning that we selected those occupying rank 1–5 and 57–62. However, it turned out that *two* individuals occupied rank 5. Since they had identical scores on the two linguistic measures, we decided to include them both with the consequence that the case of the "high performers" is represented by 6 individuals. With respect to the "low performers", the five individuals occupying rank 57–62 were selected for the study. The selected participants were then contacted and invited to participate in an interview with the second author. All six high performers responded and accepted, yet we were only able to reach four of the five low performers. For logistical and practical reasons, it was not possible to reach out to the "low performer" next in rank. Thus, the present study is based on interview with six high performers and four low performers.

The study received an ethical approval from the Swedish Board of Ethical Review (*Regionala etikprövningsnämnden i Stockholm*, Diary number 2018/2019-31/5) and was conducted in accordance with the Declaration of Helsinki.

3.2. Participants

The participants were two men and eight female Swedish learners of French who had had started learning French at the age of 12 or later and who had resided in Paris, France, for at least five years at the moment of the interview. Supplementary criteria for inclusion were to have finished upper secondary studies and to have Swedish as L1. As shown in Table 1 here below, there is a lot of variation in terms of length of residence (LOR), which ranges from 5 to 54. LOR is generally longer in the high-performing group. As can be concluded from the table, the level of education and socio-economic status are very similar in the two groups.

Table 1. Description of participants.

	Age	Age of Onset	Length of Residence (in Years)	Professional Orientation	LLAMA D	VIA Sweden	VIA France
High performers							
Margareta	n.a.	16	54	phys. ed. teacher	25	6.6	7.3
Simon	39	13	8	medical doctor	45	6	6.3
Leo	33	12	14	university lecturer	55	7.6	6.4
Lina	45	13	18	university lecturer	30	7	6.9
Gunilla	58	13	38	medical doctor	45	7.8	7.7
Lovisa	42	13	18	business managment	15	7.6	6.2
Low performers							
Helena	56	36	20	teacher	40	6	6.6
Ida	30	12	6	fashion industry	20	5.7	4.3
Johanna	39	18	5	research	20	6.4	6.1
Lea	43	13	11	accounting	15	3	5.8

With respect to linguistic performance, high performers scored <27/30 on the collocation test and were perceived as native speakers of French by 10 out of 10 native speaker evaluators. Low performers scored >20/30 on the collocation test and were not perceived by any of the native evaluators to be native speakers of French. Table 1 also includes the LLAMA and VIA scores of the participants. As for LLAMA D, the aptitude score referring to phonetic memory, Meara (2005) states that scores from 0-10 are classified as Poor, 15–35 as Average, 40–60 as Good and 65–75 as Outstanding. It can be concluded that three of the six high performers have Good (above average) aptitude, on the sub-test LLAMA D, but the other three have an average aptitude. Among the low performers, only one has Good aptitude, the others being Average, in Lea's case bordering on Poor. Figures for VIA Sweden and VIA France range on a scale from 1–9. The closer to 9, the stronger the affiliation with Swedish vs. French culture. Interestingly, the low performers have in general lower degrees of affiliation with both countries/cultures.

3.3. Interviews

The interviews were carried out in Paris, in October 2019, by the second author. The participant was asked to choose a location for the interview: some chose to be interviewed in their home, others chose to be interviewed in a café in Paris. Before collecting the data, the subjects gave their informed consent. Each interview lasted between 50 and 65 min and was recorded using a Dictaphone and an iPhone. The atmosphere was relaxed, and the participants were all eager to share their experiences. The content of the interview is further described in Section 3.3. The interviews were fully transcribed by the authors in Microsoft Word and then subjected to a thematic analysis, which is described in Section 3.4. All the participants then received pseudonyms.

The semi-structured interview was conducted based on an interview script. The script contained 18 questions (three of which had follow-up questions), formulated to elicit information on the participants' biography as well as information relevant to the investigated psychological and social factors (migratory experience, social networks and language use, language learning experience, identity, and attitudes). Example questions are: "Can you please describe your social network?", "How have you experienced the language learning process?", and "Have you used any strategies to improve your French?".

3.4. Analysis

The transcribed interviews were submitted to a thematic analysis, which is "is a method for identifying, analyzing and reporting patterns (themes) within data" (Braun and Clarke 2006, p. 79). A "theme", according to Braun and Clarke (2006), "captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set" (Braun and Clarke 2006, p. 82). A thematic analysis can be data driven (concepts/categories emerge from the data) or theoretically driven (preidentified theoretical concepts/categories are used to code the data). We used the latter approach: We sought to identify themes in the data that were directly related to the five predefined categories/factors that structured the interview.

To organize the analysis, we first created one Microsoft Excel sheet for each of the two cases ("high performers" and "low performers") in which the above-mentioned categories were lined up horizontally and each individual participant representing the given case listed vertically. Then we divided the data set between us: Author1 analyzed the high performer data set (six interviews) and Author2 the low performer data set (four interviews). Each author separately performed her analysis, following the procedure described here below:

(1) We coded the data using the above-mentioned categories.
(2) We extracted data excerpts related to each category and organized these in the described Microsoft Excel sheet.
(3) Based on the Microsoft Excel sheet, we identified themes for each category. To count as a "theme", we decided that a meaning content had to occur *at least* in two of the

interviews. An example theme for the category "social networks" is "socializing mainly with French people", identified in the high performer data.

(4) We went back to the data to adjust/confirm the identified themes.

(5) After having finalized the first round of analysis, we exchanged data sets and repeated the process described above. When we had finalized the second round of analysis, we compared the themes we had come up with, discussed any discrepancies, and adjusted themes accordingly.

4. Results

As stated in the Materials and Methods section, five categories corresponding to social/psychological factors were targeted in the interviews. The findings related to each included factor will be presented in separate sub-sections. The identified themes, for high vs. low performers, within each category, are presented in tables in each sub-section and are then subsequently discussed.

4.1. Migratory Experience

Within the category migratory experience, some of the themes identified in both groups related to motive for migration (see Table 2 below). In the high-performing group, a common initial motive for migration is a desire to study or work abroad, often coupled with a particular interest in France and the French language. While a romantic partner is a common final motive for migration in the high performer group, it is also common as the initial motive for migration in the low performer group. Another theme related to motive for migration in the low-performing group is that of a professional opportunity. A general impression is that in the low-performing group, circumstances of life (love and work) made them end up in France, whereas it was a conscious choice in the high-performing group. It is possible that the different motives for migration have affected the high and low performers' language learning orientation and L2 attainment, which would be in line with Diskin and Regan (2015), who found that motive for migration appeared to affect the acquisition of sociolinguistic competence.

Table 2. Identified themes in the category "Migratory experience".

Category: Migratory Experience	
High Performers' Themes	**Low Performers' Themes**
initial motive for migration: wish to study abroad, interest in France/French	initial motive for migration: French partner
final motive for migration: romantic partner	initial motive for migration: professional opportunity
positive experience from education in France	initial motive for migration: desire to gain international experience
university degree obtained after their arrival in France	university degree obtained prior to their arrival in France
feeling of comfort from the beginning	experienced difficulty to enter social networks including French people
positive impact of French partner	language perceived as a barrier or as important in the process of getting to know French people and culture

One important theme when speaking of migratory experience and differences between high and low performers is that of post-secondary education. In contrast with the low performers, several of the high performers had studied for a university degree in France and mention a positive experience from (university) education in France. They report that participating in a French educational program conducted entirely in French, with French people, had given them invaluable opportunities to practice the language, both through extensive reading and teaching and through informal practice with peers.

Another important difference between the high and low performers is related to their experience of the very first years in France. The majority of the high-performing participants, except Lovisa and Lina, explicitly state that they have had a feeling of comfort in France from the beginning. While they certainly express minor frustrations, they appear to have lived with few frictions in their new country, and to have adjusted quite unprob-

lematically to life in France. The experiences of the low performers are less harmonious. With respect to the social aspect of the migratory experience, three out of four do bring up the difficulty to enter social networks including French people. When asked if she felt it was possible to get access to French contexts during the first year, Lea said it was really difficult. Johanna, when asked what has been most difficult about establishing a life in a new country as an adult, brings up the difficulty of constructing one's social network. Ida brings up a sense of social isolation when describing her first year in France and reports having experienced a strong longing to go back home:

> *It was my first year, and socially it was, I wanted to go back home really really really really really badly.*

<div align="right">(Ida)</div>

A related theme is the perceived link between language proficiency and the possibility of integrating oneself into French social circles and to get to know French culture. Three out of four explicitly state either that the language was a barrier in the process of getting to know French people or emphasize the importance of French language proficiency in the process of making friends and getting to know French culture (Lea, Ida, Johanna). This theme is exemplified by Johanna's comment:

> *The better I become in French the more sympathetic . . . or the more I like the country and the culture . . . and it's perhaps . . . well, that's how you get to know people. And new cultures. A lot goes through language.*

<div align="right">(Johanna)</div>

However, although Ida does describe language as a barrier when attempting to create a social network during the initial phase of the migratory experience, she does not ascribe language any importance at all when asked how important language proficiency has been to her in the process of establishing a life in Paris: "*well it's clear, when I think back, 100% unimportant*".

Yet another theme that emerges is the experience that expatriate life offers a sense of freedom at a personal level. This experience is mentioned by all of the participants yet expressed in different terms. For example, Johanna expresses this in the following way:

> *When you are abroad and you're a foreigner it's more accepted to be different. So there's more room to be who you are somehow [. . .] in your own culture, cultural expectations come with certain constraints [. . .] so that's something I appreciate.*

<div align="right">(Johanna)</div>

It is interesting to note that this last theme—expatriate life as providing a sense of freedom—is only found among the low performers. A tentative interpretation would be that high performers do not experience the same sense of freedom as the low performers do, because they are more integrated and therefore have probably had to adjust more to the cultural norms of the majority society. This psychological reality cannot be further explored here, but it is truly an interesting finding in relation to different types of migratory experience.

4.2. Language Use/Social Networks

As shown in Table 3 below, the high and low performers differ when it comes to patterns of language use. Five out of six high performers report using mainly French in their everyday professional and private life (though this did not exclude L1 Swedish use), while the low performers report mainly using English and or Swedish. As suggested in previous studies, the high performer's frequent and regular target language use plausibly helps explain their high-level performance in L2 French (Flege et al. 1997; Moyer 2004, 2014).

As stated in the background section, research shows that the configuration of one's social network can be an important factor for L2 attainment. In the present study, it is clear that high and low performers differ with respect to their social networks. If we consider the first phase of migration, some high performers report mainly socializing with French people from the beginning, whereas others mainly socialize with Swedish people from the

beginning and enter, successively, into French-speaking networks. In their current situation, two themes can be found among the high performers: mainly socializing in French and socializing both in French and Swedish, but few of them socialize in internationally mixed networks or using English as a lingua franca. A last recurrent theme is that of actively avoiding co-nationals. Both Leo and Simon state having put this principle into practice in the beginning and Leo explains that he would not have accepted living in France without having French friends.

Table 3. Identified themes in the category "Language use/Social networks".

Category: Language Use/Social Networks	
High Performers' Themes	**Low Performers' Themes**
predominantly French use in everyday life	predominantly English and/or Swedish use in everyday life
socializing mainly with French people in the beginning	socializing mainly with Swedish people and other expats in the beginning (for some, including French)
socializing mainly with Swedish people in the beginning	currently socializing mainly with Swedish and/or international peers
currently socializing mainly with French people and interacting mainly in French	
currently socializing with equal proportions of French-speaking and Swedish-speaking people	
actively avoiding co-nationals in the beginning	

This is quite different from the low-performing group, which is characterized by their participation in international social networks, some of them including French speakers or French partners, but where the main language of communication is English. The low performers report that they socialize mainly in English and Swedish. This state of affairs can quite obviously be traced back to the differences with respect to motive of migration. Several of the high performers had a pronounced interest in France and the French before coming to France, whereas the low performers did not express any such interest. As will become evident in the next section, social networks are also related to the language learning experience.

4.3. Language Learning Experience

Language learning experience being a broad category, it was treated extensively in the interview, and numerous themes emerge (see Table 4 below). The first important difference between the high and the low performers relates to the theme of prior studies in French and the experience thereof. All high performers and half of the low performers studied French in school, but had strikingly different experiences. Most high performers had positive experiences and chose French in a conscious manner, as illustrated by this excerpt of Leo:

> *It sounded nicer and it was kind of well known that the more ambitious students chose*
> *French and lazier ones German, because it had a reputation of being easier, which, later*
> *on at more advanced levels, they realized was not true.*

(Leo)

As becomes apparent from Leo's interview, French was not only chosen consciously, but actually chosen for "sounding nicer" and for being "more difficult" than German; the challenge was thus a chosen one. In addition, three of the high performers report that they had always had an interest in or liked languages. These educational themes taken together point to a relatively early start with French, a formal base in the language learning experience and often, a conscious choice to study French as well as a pronounced interest in languages. The participant Lina even frankly states that she has an aptitude for languages. A self-reported language learning aptitude is also voiced in similar, although less clear-cut ways by Gunilla and Margareta. For instance, Margareta qualifies herself as a "monkey"—someone who can easily imitate accents and who is eager to do so. As for the low performers, two out of four studied French at school (Ida and Lea). This appears to

have been more or less of a choice. Lea apparently did not experience learning French to be a choice ("*it was really boring but I just had to do it*"). The other two, Johanna and Helena, started learning French later in life.

Table 4. Identified themes in the category "Language learning experience".

Category: Language Learning Experience	
High Performers' Themes	**Low Performers' Themes**
having studied French at school	having studied French at school
having chosen French in a conscious manner	previous international experiences prior to arrival in France
had always had an interest in or liked languages	language learning experience perceived as a challenge
self-reproted language learning aptitude	attribute themselves responsibility for their language learning outcomes
university studies in French	express having made limited efforts to learn French
self-regulation	agency
agency	
extensive media consumption	
active listening	
efforts to sound like a native speaker	
language learning experience perceived as an enjoyment	

Furthermore, it appears that the language learning process has been a challenge to the low performers, either because of a lack of interest (Lea) or because of experienced difficulties. The low performers, however, seem to differ with respect to how they relate to the difficulty experienced. While Helena expresses acceptance towards her French, which she finds imperfect, Ida appears to be more disturbed by her self-perceived inadequacy in French. Johanna, who had learned both English and Spanish prior to French, declares that she has always had difficulties learning languages: "*I've always had a hard time learning languages. It takes a very long time*". This is in stark contrast to the high performers who, as already mentioned, report being endowed with an aptitude for language learning, enjoyed the language learning process (5 out of 6) and found it relatively easy to learn French (at least half of them).

Two other themes that appear relevant when discussing the language learning experience in this group are self-regulation and agency (see Background section). Both groups report clearly experiencing agency in relation to the language learning process, yet the outcomes evidently differ. This can be explained by the practice of self-regulation (or the lack thereof). Simon's self-regulatory behavior can be observed in the following excerpt, where he speaks of a language learning instructor and likens language learning with a game of tennis, and where several aspects of self-regulation are clearly present: making an autonomous decision, being motivated and taking the initiative:

> *Although I studied five or six years in school, it felt like one never got over some kind of threshold but with Michael Thomas, I felt quite quickly that I had taken the initiative. I had the motivation to learn, I was going here and everything went so much quicker. And I got the confirmation when I came here and started being able to shoot the balls over the net.*
>
> (Simon)

While high performers are characterized by making conscious efforts to learn the language, such as taking a job just to speak the language, engaging in massive media consumption and listening actively to conversations in order to imitate the French, low performers admit that they *have not* made enough efforts to learn the language and attribute themselves responsibility for their limited knowledge of French. It is interesting to observe that the two learner groups share a perception of agency in relation to the language learning process, but that issues such as interest and motivation probably explain the difference both in levels of self-regulation and in learning outcomes.

Related to the theme of self-regulation is the theme of having made efforts to sound like a native speaker. Bearing in mind that all six participants among the high-performing

participants have "passed as native speakers", it is interesting to hear that at least four out of six have made conscious efforts to sound like a native speaker, and considered this important. This is, by contrast, not reported by any of the low performers.

4.4. Identity

The fact that the majority of the participants have made efforts to sound nativelike can also be linked to the category of "Identity", the next category to be discussed (for a summary of the identified themes, see Table 5 below). As stated in the background, the concept can include many components. Here, we will mainly make the distinction between identity issues related to cultural identity and issues related to the self.

Table 5. Identified themes in the category "Identity".

Category: Identity	
High Performers' Themes	**Low Performers' Themes**
both Swedish and French position	both Swedish and French position depending on context and/or period in life
neither Swedish nor French position	L2 use tied to a sense of loss of self or personality reduction
perceiving linguistic competence as essential to integration	
linguistic competence related to self-value	

The quantitative study, preceding this qualitative study, showed that perceived distance to the home country Sweden was related to the extent to which L2 speakers are identified as native speakers of French (see Section 2.1). Examining this then in the interviews, two main orientations can be distinguished: the "both Swedish and French position" and "the neither Swedish nor French position". What is interesting is that these two positions can be found in almost all participants, so it is difficult to distinguish the two learner groups from one another in terms of national identity. It can be concluded that we do not have any cases of learner who identify themselves completely as "Swedish" or completely as "French". Rather, hybridity is the norm in both high and low performers. However, in terms of identity issues related to the self, differences between high and low performers can be discerned.

Most high performers perceive linguistic competence as being essential to integration. Almost all of the high performers (5/6) are affirmative about the important role that language proficiency has played when establishing a life in French society, but some are more explicit about it. The strongest position is advocated by Leo, who also stands out as one of the most self-regulated profiles. He states having had a strong desire to be perceived as French and has consciously wanted to enhance his sense of participation in society. Language has been, according to Leo, key to that.

> *I don't feel that I would have been comfortable living in a country without speaking the language. I would not have wanted that. Regardless of which country. So, I would have made quite a serious effort to learn the language wherever I would have ended up. It feels like there a lot that goes missing . . . almost all culture emanates from the language. If you do not know the language, you miss out on a lot of culture.*
>
> (Leo)

Leo thus makes a strong connection between language and culture and experiences the possibility, through language, of taking part in another culture. Lina also thinks passing for a native speaker has been key to her perceived successful integration. To her, language learning takes on an almost existential function. She argues that language proficiency is essential to integration, but also to one's sense of self-respect.:

> *Lina: But also for my own sake, to prove to myself that I can actually learn how to speak this language [. . .] That: "I will bloody well be able to do this. I will succeed in speaking, I will, yes . . . master this language. As simple as that."*

Interviewer: So some kind of inner driving force?

Lina: Maybe, well . . . what do you call it . . . pride? Self-respect of some kind.

Leo expresses something similar when he states that language learning is related to a sense of equality. These driving forces, obtaining a sense of self-respect in the new language, self-satisfaction and ultimately, becoming an equal member of society, have probably had an impact on the efforts made to learn the language, since they are related to the survival of the self during the migratory experience.

A few of the low performers also express the view that language learning is important for integration, but for some, protecting the self appears to have been even more crucial. In Ida's and Helena's account, L2 use is apparently tied to a fear of face loss and in Lea's case, L2 use provokes a sense of personality reduction. In addition to this, two of the four low performers (Ida and Lea) evoke how *not* mastering French is a way to protect other facets of themselves. Ida expresses this in the following terms: "*as long as I don't master the French language I am not stuck*". When asked how she explains her self-expressed relatively low ambitions when it comes to learning French, Lea points to a fear that the French language would take over other aspects of herself and her life if it became too prominent in her life, as evidenced in the following excerpt:

Euhm, I don't know, like, partly it's been that I didn't want the French language to take over, it was probably unconscious [. . .].

(Lea)

As becomes apparent from Ida's interview, the fact that she has been able to establish a life and a career in France without speaking French has become part of her self-image:

[. . .] it's almost like it has become a thing, a part of my character [. . .] I'm the person who has succeeded in living here for almost six and a half years, have made a pretty fun career, down here, without speaking French.

(Ida)

As illustrated by the examples above, L2 proficiency is related to the self and identity. If high performers considered L2 proficiency important for self-respect and self-satisfaction, low performers embrace an identity where L2 proficiency is explicitly unimportant.

4.5. Attitudes

The last category to be examined is that of attitudes, here understood as attitudes to the host community, i.e., France. Interestingly enough, this is really the only category where virtually no differences can be discerned between high and low performers (see Table 6 above). In general, all the high-performing participants held positive attitudes to France before moving there and continue to appreciate many sides of life in France. This also goes for the low performers.

Table 6. Identified themes in the category "Attitudes".

Category: Attitudes	
High Performers' Themes	**Low Performers' Themes**
appreciation of a tolerant intellectual climate appreciating the diversity in French society appreciation for the French way of life missing the Swedish social model	appreciation of free, permissive intellectual climate appreciation for the French way of life

Three recurrent subthemes can be distinguished among the positive attitudes: an appreciation of a tolerant intellectual climate, which can be noted among almost all participants. It seems like the French virtue of freedom of speech is actually experienced by the high-performing participants in our group.

Another theme that stands out is that of appreciating the diversity in French society. Diversity seems to be interpreted in several ways here: diversity in relation to the theme above, i.e., viewpoint diversity in discussions, but also in relation to ethnic diversity.

A third and quite prominent theme is that of appreciating all things related to good life in France. The gastronomic culture, the beauty of buildings and objects and the landscapes are among the aspects mentioned.

On a more negative note, relating to what participants find to be missing in France when compared to their home country Sweden, some among both the high and low performers mention concepts such as equality, gender equality and solidarity. It is interesting that participants find those features lacking in their new host country that might be considered the most characteristic of Swedish society, at least according to a stereotypical image of "the Swedish Model".

5. Discussion and Conclusions

The present study set out to explore what social and psychological factors can explain high performance in second language acquisition in a migratory context, based on a thematic analysis of in-depth interviews with linguistically high- and low-performing L2 learners of French. A preceding quantitative study on 62 participants had shown that language aptitude (as assessed by the LLAMA test) and acculturation (as assessed by the VIA questionnaire) were predictive factors in explaining perceived nativelikeness (Forsberg Lundell et al. forthcoming). The present study constitutes a follow-up to the quantitative study with the aim of exploring whether other factors (of which some were not considered in the quantitative analysis), may help explain successful late L2 acquisition. The following five factors/categories were investigated: migratory experience, language use/social networks, language learning experience, identity and attitudes.

First of all, the analysis suggests that the high-performing and low-performing participants are similar with respect to one theme and that is "attitudes to the French and France". Both groups generally hold positive views towards their country of migration. This is interesting, since one could imagine, as has long been suggested in the literature, from Schumann (1976) to Gardner (Masgoret and Gardner 2003), that positive attitudes to the host community will influence language learning favourably. Nevertheless, the participants display clear differences on almost all of the other categories.

The first category that clearly separates high performers from low performers is that of language learning experience and particularly the themes of self-reported language aptitude and language interest, which are both characteristic of the high performers. The importance of aptitude for attaining nativelike command of the L2 is strengthened by the frank statements made by some of the low-performing participants who claim that they have always found it difficult to learn languages, not only French. One could accordingly say that one of the main results from the quantitative analysis—that aptitude is a reliable predictor of perceived nativelikeness—is supported by the participants' narratives in the present study. Furthermore, the high performers are also characterized by more formal learning of French—although a few low performers have studied to the same extent as some high performers, they report negative attitudes to French learning in school, whereas the high performers generally report positive experiences. Furthermore, in contrast to the low-performing group, the high performers display self-regulated language learning behavior (cf. Moyer 2014) and have mostly enjoyed language learning (cf. Muñoz 2014). Another striking feature of the high-performing group is that several of the participants voice the importance of passing for a native speaker, not least for existential reasons and to feel entirely part of French society. The importance of language learning for one's sense of equality and self-respect are less frequently discussed in the literature and would be worthwhile exploring further in future research (but see Lybeck 2002 and Moyer 2004). None of the low performers report having ever had a particular interest in the French language or a strong desire to master French. As opposed to the high performers, they found it difficult to learn French, a difficulty which they attribute to their lack of interest or to their self-image as bad language learners. In addition, some of them seem to perceive French language learning as a threat to their identity, and one low performer appears to have created an identity around being a non-proficient French speaker.

Language use and social networks is another category that distinguishes the high performers from the low performers. Several of the high performers report finding it relatively easy to enter social networks including French, already from the beginning of their stay in France. This naturally gave them rich opportunities to practice their French in social interaction. The observation that extensive L2 use and social relations with native speakers favor L2 development is in line with previous research stemming both from a migratory context (Dollmann et al. 2020; Flege et al. 1997; Lybeck 2002; Moyer 2004) and a Study Abroad context (Dewey et al. 2013; Mitchell et al. 2017). Some of the high performers even report having consciously avoided co-nationals—a rather extreme stance which they themselves justify by their strong desire to improve. In contrast, low-performing participants report having had difficulties creating social networks with French people and/or having rather formed Swedish- and English-speaking social networks. Interestingly, if the low performers engage mainly in social networks in English, the high performers report little use of English in general. It thus seems like recourse to English can actually constitute an obstacle to French language learning.

High performers and low performers differ on many parameters, but can we, among these, discern any main decisive features? Our tentative summary would be that most of the high-performing participants in our population have an aptitude and a specific interest in languages as a starting point, leading to extensive use and practice in French, combined with self-regulatory behaviors and a determination to attain nativelike proficiency (cf. Moyer 2004). This also aligns, to a certain extent, with the results on formal language learners from Busse and Williams (2010), Muñoz (2014) and Stolte (2015).

However, a few limitations also need to be acknowledged. The current study is based on an uneven number of learners representing each case, which may somewhat skew the observations. The thematic analysis is inevitably the result of the researchers' interpretations. However, this study throws light on what circumstances, experiences and characteristics promote high performance in an L2 among adult migrants.

Last, the importance of different cultural contexts and socio-political environments should not be neglected. France is clearly a language learning environment where assimilationist and nationalist values are common in the official arena and where language is highly related to social hierarchies. This will, most probably, play a role in the effort learners will expand to learn a language and, in some cases, how well they finally learn to master their L2. This points to the importance of including (language) ideologies in future studies and also to the necessity to replicate this study in another linguistic and cultural context, in order to gain a more complete understanding of the decisive factors for adult SLA.

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References

Abrahamsson, Niclas, and Kenneth Hyltenstam. 2009. Age of onset and nativelikeness in a second language: Listener perception versus linguistic scrutiny. *Language Learning* 59: 249–306. [CrossRef]

Bandura, Albert. 1991. Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes* 50: 248–87. [CrossRef]

Benson, Phil, Gary Barkhuizen, Peter Bodycott, and Jill Brown. 2013. *Second Language Identities in Narratives of Study Abroad*. London: Palgrave Macmillan.

Braun, Virginia, and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3: 77–71. [CrossRef]

Busse, Vera, and Marion Williams. 2010. Why German? Motivation of students studying German at English universities. *The Language Learning Journal* 38: 67–85. [CrossRef]

De Fina, Anna, and Amelia Tseng. 2017. Narratives in the study of migrants. In *The Routledge Handbook of Migration and Language*. Edited by Suresh Canagarajah. New York: Routledge, pp. 381–96.

Dewaele, Jean-Marc, Peter D. MacIntyre, Carmen Boudreau, and Livia Dewaele. 2016. Do girls have all the fun? Anxiety and enjoyment in the foreign language classroom. *Theory and Practice of Second Language Acquisition* 2: 41–63.

Dewaele, Jean-Marc, John Witney, Kazuya Saito, and Livia Dewaele. 2018. Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research* 22: 676–97. [CrossRef]

Dewey, Dan P., Kirk R. Belnap, and Hillstrom Rebecca. 2013. Social network development, language use, and language acquisition during study abroad: Arabic language learners' perspectives. *Frontiers: The Interdisciplinary Journal of Study Abroad* 22: 84–110. [CrossRef]

Diskin, Chloé, and Vera Regan. 2015. Migratory experience and second language acquisition among Polish and Chinese migrants in Dublin, Ireland. In *Cultural Migrants and Optimal Language Acquisition*. Edited by Fanny Forsberg Lundell and Inge Bartning. Bristol: Multilingual Matters, pp. 137–77.

Dollmann, Jörg, Irena Kogan, and Markus Weißmann. 2020. Speaking accent-free in L2 beyond the critical period: The compensatory role of individual abilities and opportunity structures. *Applied Linguistics* 41: 787–809. [CrossRef]

Dörnyei, Zóltan. 2010. The relationship between language aptitude and language learning motivation: Individual differences from a dynamic systems perspective. In *The Continuum Companion to Second Language Acquisition*. Edited by Ernesto Macaro. New York: Continuum International, pp. 247–67.

Douglas Fir Group. 2016. A transdisciplinary framework for SLA in a multilingual world. *The Modern Language Journal* 100: 19–4. [CrossRef]

Duff, Patricia A., and Steven Talmy. 2011. Language socialization approaches to second language acquisition. Social, cultural, and linguistic development in additional languages. In *Alternative Approaches to Second Language Acquisition*. Edited by Dwight Atkinson. New York: Routledge, pp. 95–116.

Flege, James E., Elaina M. Frieda, and Takeshi Nozawa. 1997. Amount of native-language (L1) use affects the pronunciation of an L2. *Journal of Phonetics* 25: 169–86. [CrossRef]

Forsberg Lundell, Fanny, Christina Lindqvist, and Amanda Edmonds. 2018. Productive collocation knowledge at advanced CEFR levels: Evidence from the development of a test for advanced L2 French. *Canadian Modern Language Review* 74: 637–49. [CrossRef]

Forsberg Lundell, Fanny, Klara Arvidsson, and Andreas Jemstedt. forthcoming. What factors predict perceived nativelikeness in long-term L2 users? submitted.

Gardner, Robert C. 2006. The socio-educational model of second language acquisition: A research paradigm. *EUROSLA Yearbook* 6: 237–60. [CrossRef]

Gatbonton, Elisabeth, and Pavel Trofimovich. 2008. The ethnic group affiliation and L2 proficiency link: Empirical evidence. *Language Awareness* 17: 229–48. [CrossRef]

Granena, Gisela, and Michael Long. 2013. Introduction and overview. In *Sensitive periods, language aptitude, and ultimate L2 attainment*. Edited by Gisela Granena and Michael Long. Amsterdam: John Benjamins, pp. IX–XVIII.

Hyltenstam, Kenneth. 2018. Second language ultimate attainment: Effects of maturation, exercise and social/psychological factors. *Bilingualism: Language and Cognition* 21: 921–23. [CrossRef]

Isabelli-García, Christina. 2006. Study abroad social networks, motivation and attitudes: Implications for second language acquisition. In *Language Learners in Study Abroad Contexts*. Edited by MargaretA. DuFon and Eton Churchill. Clevedon: Multilingual Matters, pp. 231–58.

Kinginger, Celeste. 2013. Identity and language learning in Study Abroad. *Foreign Language Annals* 46: 339–58. [CrossRef]

Kinsella, Ciara, and David Singleton. 2014. Much more than age. *Applied Linguistics* 35: 441–62. [CrossRef]

Kormos, Judit, Thom Tiddle, and Kata Csizér. 2011. Systems of goals, attitudes, and self-related beliefs in second language learning. *Applied Linguistics* 32: 495–516. [CrossRef]

Lybeck, Karen. 2002. Cultural identification and second language pronunciation of Americans in Norway. *The Modern Language Journal* 86: 174–91. [CrossRef]

MacIntyre, Peter D., and Catherine Charos. 1996. Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology* 15: 3–26. [CrossRef]

Masgoret, Anne-Marie, and Robert C. Gardner. 2003. Attitudes, motivation, and second language learning. A meta-analysis of studies conducted by Gardner and associates. *Language Learning* 53: 123–63. [CrossRef]

McManus, Kevin, Rosamund Mitchell, and Nicole Tracy-Ventura. 2014. Understanding insertion and integration in a study abroad context: The case of English-speaking sojourners in France. *Revue Française de Linguistique Appliquée* 19: 97–116. [CrossRef]

Meara, Paul. 2005. *LLAMA Language Aptitude Tests*. Swansea: Lognostics.

Milroy, Lesley. 1980. *Language and Social Networks*. Oxford: Blackwell.

Mitchell, Rosamond, Nicole Tracy-Ventura, and Kevin McManus. 2017. *Anglophone Students Abroad. Identity, Social Relationships and Language Learning*. New York: Routledge.

Moyer, Alene. 2004. *Age, Accent and Experience in Second Language Acquisition*. Bristol: Multilingual Matters.

Moyer, Alene. 2014. Exceptional outcomes in L2 phonology: The critical factors of learner engagement and self-regulation. *Applied Linguistics* 35: 418–40. [CrossRef]

Muñoz, Carmen. 2014. Starting age and other influential factors: Insights from learner interviews. *Studies in Second Language Learning and Teaching* 3: 465–84. [CrossRef]

Muñoz, Carmen, and David Singleton. 2011. A critical review of age-related research on L2 ultimate attainment. *Language Teaching* 44: 1–35. [CrossRef]

Naiman, Neil, Maria Fröhlich, H. H. Stern, and Angie Todesco. 1978. *The Good Language Learner*. Toronto: Ontario Institute for Studies in Education.

Norton, Bonnie. 2014. Idnetity and poststructuralist theory in SLA. In *Multiple Perspectives on the Self in SLA*. Edited by Sarah Mercer and Marion Williams. Bristol: Multilingual Matters, pp. 59–74.

Ryder, Andrew G., Lynn E. Alden, and Delroy L. Paulhus. 2000. Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. *Journal of Personality and Social Psychology* 79: 49–65. [CrossRef] [PubMed]

Schumann, John. 1976. Second language acquisition: The pidiginization hypothesis. *Language Learning* 26: 391–40. [CrossRef]

Stolte, Rosemarie. 2015. German Language Learning in England. Understanding the Enthusiasts. Unpublished Ph.D. dissertation, University of Southampton, Southampton, UK.

van der Zee, Karen, Jan Pieter van den Oudenhouven, Joseph G. Ponterotto, and Alexander W. Fietzer. 2013. Multicultural personality questionnaire: Development of a short form. *Journal of Personality Assessment* 95: 118–24. [CrossRef] [PubMed]