Synergic Concepts, Lexical Idiosyncrasies, and Lexical Complexities in Bilingual Students’ Translated Texts as Efforts to Resolve Conceptual Inequivalences

Hanh Dinh

Abstract: The purpose of this study is to draw on the conceptual blending hypothesis from the socio-cognitive approach to investigate the conceptually equivalent translation written in L2—English—of bilingual students via two tasks of translating and defining individual words and translating texts from L1 to L2. Next, the study demonstrates how translation abilities that vary amongst groups can affect students’ lexical density, lexical diversity, lexical sophistication, and lexical idiosyncrasies in translated text. The translating process in bilinguals could be interpreted via the lens of the conceptual blending hypothesis and dueling contexts framework to demonstrate that bi/multilingual students do not differ from monolingual ones pertaining to cognitive or linguistic abilities. Rather, the distinctive difference between bilingual and monolingual language users is bilingual speakers’ abilities of the third competence of formulating a synergism across word concepts and utilizing a bidirectional translation between two languages. When a word in L2 is acquired, there is a conceptual blending between the new conceptual information, encoded after each time the L2 word is used in an L2 socio-cultural context and the existing socio-cultural conceptual information in L1. The new concept created after the blending is called a synergic concept. If the synergic is not well developed, the language user selects incorrect or inappropriate words in a context, resulting in lexical idiosyncrasies. Data gathered from 30 English–Chinese bilingual university students in a transnational program in sociology were collected and compared against 15 monolingual American students. The preliminary findings are as follows: (1) regardless of the location of where the English (L2) socio-cultural meaning conceptualization mainly takes place (in China or the U.S.A.), English–Chinese bilingual language users demonstrated a significant difference in connotative meaning knowledge of noun word concepts and idiomatic concepts, compared with English native speakers; (2) the synergic concepts were detected in all experimental concepts and demonstrated the conceptual blending to a varying degree that affects their translating process and its outcomes: the domineering L1 socio-cultural concept, the well-blended L1 and L2 socio-cultural concept that results in a “third culture”, and the assimilating L2 socio-cultural concept; (3) the synergistic blending of two socio-cultural loads embedded in lexical concepts detected in the bilingual students in the U.S.A. was more robust than those in China, resulting in significantly fewer sophisticated words and lexical idiosyncrasies in their English translated essays. The study sheds new light on understanding the dynamism in bilingualism via translation tasks to indicate bilingual learners’ lexical development. Implications for using translation tasks and analysis of word concepts across languages to support bi/multilingual students in language and academic learning are discussed.

Keywords: translation; language use; intercultural learning; applied linguistics

1. Introduction

With the internationalization of modern education and the increasing demand for intercultural cooperation and communication, natural translation, or translation-like activities, which is a natural cognitive linguistic processing of bi- and multilingual language
users (Harris 1977; House 2011; Presas 2000; Shreve 2012), has grown in importance in the past few decades. Theoretically speaking, natural translation done by bilinguals requires no special training or learned techniques and can be seen in everyday circumstances when bilinguals code switch or intentionally translate their speech from one to another language. Indeed, psycholinguistic studies’ findings have long proven the existence of a shared conceptual representation of two languages in the bilingual mind (De Groot 2002; Francis 2020) and the simultaneous activation of both languages during lexicalization (Altarriba and Mathis 1997; Costa et al. 2006; Qiao and Forster 2013). Several studies on the models of bilingual lexicon access, such as the renown revised hierarchial model of bilingual language processing (Kroll and Stewart 1994; Kroll et al. 2010), also emphasized that bilingual students or language users constantly engage in a bi-directional translation between their first (L1) and second (L2) language, with different interlanguage and asymmetric mappings of words to concepts and amongst words, regardless of their L2 proficiency. Thanks to that natural translation ability, bi- and multi-lingual students are claimed to demonstrate unique language usage, which are inherently different from monolingual peers, and such multilingualism abilities deserve to be perceived as a multicompetence and intercultural communication capability and advantage (García and Wei 2014; Holliday et al. 2021; May 2014; Piller 2017). Additionally, when a bilingual language user reaches a high proficiency level in their non-dominant (L2) language, the bilingual lexicon processing models hypothesize that they can gain access to a target word concept without having to gain access through the L1 words. In this vein, what bilinguals do is to know how to rephrase their thoughts and articulate a concept directly in any target language without relying on a word-by-word translation. This phenomenon is referred to as the bilinguals’ competence of interlingual translation, or translation proper. It is their interpretation of verbal signs by means of some other language (Tymoczko 2005). Additionally, it indicates the phase when the learners have already acquired a bank of L2 words. Hence, they now seek to understand the second language without depending on identifying structures which are equivalent to those of the mother tongue. Rather, they analyze the equivalence between the concepts emerging from reality and identify the appropriate way of expressing these.

So far, traditional second language acquisition (SLA) research (Han 2004; Llach 2005, 2011) has still taken such translation competence of bilingual students (or, English language learners) for granted. It means that bilingual students who attain a high English language proficiency level were associated with quicker and more successful production of translations for ambiguous words, and with more accurate recognition of translations for ambiguous words, thus resulting in a high level of translation competence (Prior and Gollan 2013). In this vein, SLA is still ontologically committed to the native speaker norms, implying that non-normative or idiosyncratic word choices are linguistic deficiencies, unwanted, or fossilized lexical errors, and erroneous translated word choices (Valdés 1992), rather than possible, natural outcomes of intralingual translation skills that are still under development.

Paradoxically, the translation proper in the case of bilingual students is not a simplistic or fixed process. It is a hermeneutic process, where bilingual students take their own pace and time to master their language use and translation ability, which are, in reality, undoubtedly affected by the cultural-specific meaning attached to the word built in L1. The students’ language background deeply rooted in L1 determines a word’s psychological concreteness, imageability, context-availability, and relevant semantic network in the corresponding L2 word during the translation process (Kapreli et al. 2011; Arredondo et al. 2019; Berkes et al. 2018; Türker 2016; Stutterheim and Nüse 2003). These findings demonstrate that complete equivalence is rare, and thus, it is impossible for a bilingual language user to idealize and arrive at the equivalent translations that equate with the language norms as a L2 monolingual native speaker. The dominance of L1 culture and L1 language use in an environment where the dominant language use is a biasing factor for lexical activation and lexical translation amongst bilinguals. Linking L2 directly to concepts but encountering conceptual inequivalences between two languages may result in confusing word choice and awkward wording in the target language (Pavlenko 2009). The distinctive and far
less normative characteristics in language usage of bilingual students are persistently demonstrated in bilingual students’ L2 written products when they translate their ideas from L1 to L2 (Kim et al. 2021; Martirosyan et al. 2015; Sato 2021; Williams and Takaku 2011), reflecting their abilities to test out and navigate their language translation in a specific language context, using the linguistic repertoire shared by two languages. Consequently, it is natural that, compared with English-native monolingual writers, bilingual students need to spend more time on translating and deciding their word choices (Crossley and McNamara 2009; Manchón et al. 2000; Singleton and O’Laoire 2004) and on sharpening their translation abilities to phrase thoughts in a more target-oriented and collocational manner (Hirvela and Du 2013; Hyltenstam 1998; Lasagabaster and Doiz 2003; Muncie 2002). An increase in unusual wording in the translation products may hint at a positive transitional phase of lexical selection and accelerating speed in translation when students interpret and negotiate word meaning without relying on word-to-word links (see Dijkstra and Heuven 2002; Yoshii 2006).

Therefore, it is crucial to understand the rationale of a bilingual student in terms of word choice in a translational task, including both the student’s understanding of the word meaning on the linguistic side and the sociocultural and conceptual meaning embedded to the word on the conceptual side. More importantly, socio-cultural conceptual aspects, which belong to the extra-linguistic level of conceptual representations, play a critical role in the lexical selection in a context where those concepts are mapped into words. Socio-cultural conceptual aspects represent the preferred way of using language within a social and cultural speech community and are present in the conceptual base (Kecskes 2008). Thus, this study aims to demonstrate the influence of L1 word(s) and its existing knowledge on the incorporation of L2 socio-cultural conceptualization in translational tasks until the language user determines words appropriately in a target context. Additionally, apart from Oostendorp (2012), there is a general lack of empirical research in investigating both the conceptual aspects and translation products of bilingual students in higher education. There have also been very few studies that support current interactions among second language acquisition (SLA), language teaching, and translation studies (Colina 2002).

To fill that gap, this study adopts a socio-cognitive approach on bilingualism to offer a conceptual model for analyzing translated word pairs and their applications in written products of bilingual students, which can have implications for language teaching. The socio-cognitive approach is in line with the two-level theory (e.g., Bibok and Németh 2001; Bierwisch 1996, 1997; Francis 2005), which states that both the conceptual level and linguistic level of semantic translation (or semantic interpretation), and not either side of it, are fundamental for determining an equivalent translated word in a specific context of use. Translating a first language (L1) word to the second language (L2) word in a naturalistic context involves the arrangement of a cultural-dependent conceptual representation in the “pre-verbal (thought)” phase before the articulation phase. This study focuses on those influences of socio-cultural specificity on conceptual and linguistic performance across diverse higher education contexts where L2 can be acquired and L2 lexical idiosyncrasies in translation could be bridged (Hartmann and Hélot 2019).

To describe the synergism of L1 and L2 sociocultural loads in a word concept that underlies the translation process, this study investigates the conceptually equivalent translation written in L2—English—of bilingual students via two tasks of translating and defining individual words and translating texts from L1 to L2. Next, the study demonstrates how translation abilities vary amongst groups can affect students’ lexical density, lexical diversity, and lexical sophistication, and lexical idiosyncrasies.

2. Literature Review
2.1. The Traditional Approach to Denote Lexical Abilities of a Bilingual Learner

In regard to the lexical abilities of a bilingual learner when they use translation from L1 to L2 and vice versa as a means of communication, scholars in SLA have been mainly focused on translation-production studies (cf. De Groot and Hoeks 1995; De Groot and
The quality of word production after translation tasks can be evaluated and quantified via measuring the lexical complexity indexes (including lexical density, lexical diversity, and lexical sophistication), either between bilinguals and monolinguals (Laufer and Nation 1995; Read 2000; Wesche and Paribakht 1996) or between bilinguals from different levels of language proficiency (Byrnes et al. 2010; Housen and Kuiken 2009; Polio 2001). Specifically, lexical density is defined as the number of lexical words (or content words) divided by the total number of words (Ure 1971). Lexical words, unlike function words, are nouns, adjectives, verbs, and adverbs. Lexical density is a measure of how informative a text is. Lexical diversity refers to “the range of different words used in a text, with a greater range indicating a higher diversity” (Malvern et al. 2004, p. 381). To achieve a highly lexically diverse score, the writer cannot repeat themselves many times and has to use different synonymic words and diverse ways of rewording to express his or her ideas. There are different ways to measure lexical diversity, yet one needs to take into consideration comparing texts of different lengths. Hence, the measurement of lexical diversity, which is independent of sample writing size, is called D. Developed by Richards and Malvern (1997), this D (or VocD) value indicates lexical diversity as how productive the use of vocabulary is in any texts. VocD has been a reliable indicator for lexical diversity since then (McCarthy and Jarvis 2010). Finally, bilingual university learners are also required to demonstrate their competent translation of academic language from L1 to L2 by using low-frequency academic words (Leki et al. 2010; Hardy and Römer 2013; Lee 2003).

Lexical sophistication is employed to evaluate the richness of the advanced vocabulary repertoire gained in the non-dominant L2 language of bilingual learners. Lexical sophistication measures the range of low and high frequency words when compared the text with the selected corpora. For example, the corpus usually used for the comparison is the academic writing wordlist (AWL) (Coxhead 2000).

However, there still exists vagueness about how such quantitative-oriented and linguistic code measurements can capture “both the [. . . ] internal structuring of linguistic units and to the psychological difficulty in using or learning them” during the translation process (Crystal 1987, p. 76). Regarding the construct validity of lexical complexity measures, Bulté and Housen (2012, 2014) suggested that those measurable indices indicate the accuracy of linguistic knowledge of bilingual students or ELLs rather than the semantic or conceptual structures and correlates contained within the translation of L1 to L2 lexicon. For example, Zareva (2019) examined the lexical complexity profiles of academic presentations of three groups of university students who are native English speaking, know English as a second language (ESL), and know English as a lingua franca (ELF) respectively. The bilingual students in the ESL and ELF groups came from different countries and cultural backgrounds. The researcher adopted the traditional quantitative measurement of lexical complexity, which includes lexical diversity, lexical density, and lexical sophistication, and revealed overwhelming similarities across the three groups of presenters. Recent studies (Guo et al. 2020; Domínguez et al. 2013; Durán et al. 2004; Schneider et al. 2020) using similar indices of lexical complexities observed similar lexical matching between bilingual and English monolingual students, but they could not offer an adequate explanation for the repetitive regression of bilingual students in terms of several misuses of lexical choices.

2.2. The Socio-Cognitive Approach on Conceptual Blending and Synergic Concepts

Besides the quantifiable indices of lexical complexities, words are connected with their qualitative properties, which are underlying lexical concepts. The conceptual system linking to the meaning construction of a lexical label is not only engaged with semantic representations (word dictionary meaning), but also with the world knowledge (encyclopedic knowledge stored as mental representations) encoded in the lexical label. The conceptual side and the linguistic side are like two sides of one coin. They exist along with each other to shape the mental representation of a lexicon (Aitchison 2012). Though theoretically justifiable, a lexical concept is difficult to capture because it happens mainly beyond what can be observed as the linguistic label. In an attempt to demonstrate the
conceptual side of a mental lexicon, Kecskes (2007) claimed that each mental representation or lexical concept can be compartmentalized into common concepts (or what we called “core” meaning), and socio-cultural-specific concepts (among other concepts that are made from our world knowledge). Socio-cultural-specific concepts are encoded from constant conceptual interaction with the surrounding environment, or say, the context. Socio-cultural elements in lexical concepts were critically investigated (Bibok and Németh 2001; Bierwisch 1996; De Groot et al. 2002; De Bot 2003; Sperber and Wilson [1986] 1995). The socio-cultural factors that affect the conceptualization of a lexicon include saliency, conventionality, frequency, familiarity (Giora 1997), and emotional connotation, emotional valence and arousal (Citron et al. 2016).

Moreover, the socio-cognitive approach (proposed by Kecskes 2008; Kecskes and Zhang 2009) proposed that a human being exists with only one conceptual base to work as an underlying mechanism to store lexical concepts and to govern word production (Costa et al. 2006; Kroll and Tokowicz 2001). Those lexical concepts are in ever-changing reorganizing and merging processes (Evans 2009, 2010). In the case of the bilingual mind, Kecskes (2007) hypothesized that in the common underlying conceptual base (CUCB) of proficient bilinguals, when the new language emerges and modifies existing concepts in L1, there is a conceptual blending happening to a varying degree. Such blending or conceptual restructuring would result in what he called synergic concepts, which would govern the lexicalization phase of the bilingual writer. For example, in American culture, the concept of “a meal consumed in the middle of the day” would activate the socio-cultural concept of a quick meal with specific types of food. However, in Chinese culture, it would denote a decent break until late afternoon, precisely from 11 a.m. to 2 p.m., with a full-course, well-prepared meal. Simultaneously, a Chinese language user would conceptualize types of food for that meal differently from the American. When a Chinese–English bilingual lexicalizes his/her concept, the bilingual who needs to select “lunch” in American context concurrently knows that she/he would have a choice to select “午餐” (Wúcān) (a heavy meal from 11 a.m. to 1 p.m.) or “午饭” (wǔfàn) (a midday meal) and the concept of “food” could be lexicalized as 饭, 菜, 食, and 餐 in Chinese contexts. On the conceptual level, this socio-cultural knowledge in both English and Chinese contexts is synergized in the CUCB of the bilingual. The language user is affected by the socio-cultural salience, which is the connotational preference (whether a socio-cultural concept is decided to deem negative, neutral, or positive connotation) to determine the word choice in the emergent situation (Kecskes 2011). On the linguistic level, the labels above are activated by the collective salience shared with the members of a speech community.

If a prototype is seen as the central or best example of a semantic category, a socio-cultural connotation and its related cultural frame are seen as the central or best example of a pragmatic category. In this vein, after constant conceptual socialization, the conceptualization of a word involves broadening the pragmatic category by adding new contextual meaning or even new connotations to the conventional connotation in L1 or L2. When the writer is faced with a word choice, how a ranking of the available choices is decided depends on the degree of salience of the socio-cultural entities in the synergic concept of both or one of the languages. The question remains of how a synergic concept can be described during the translation process.

The blending of those concepts in the CUCB, therefore, is contingent on the extent of intake from the process of development and clarification of socio-cultural-specific concepts. Conceptual socialization indicates the intellectual and cognitive abilities of a language user to manage his/her articulation of thoughts in preferred ways of thinking and saying things in a socio-cultural target context. Kecskes (2010) described the nature and the outcome of conceptual socialization in CUCB as synergism of L1 and L2, “[. . . ] in the CUCB of proficient bilinguals the two different socio-cultural loads are blended, which results in a conceptual domain that is not equal to the content of the conceptual domain in either language” (p. 36). As a consequence, the nature of synergic concepts happening in the bilingual lexicon’s mental representation is qualitatively unparalleled compared with those
of monolinguals. The combined effect is an enhanced one that is greater than adding the new concepts on their own. The conceptual framework of conceptual blending in the perspectives of socio-cognitive approach can be illustrated in Figure 1 below.

![Figure 1. Synergic concepts and conceptual blending (visualized from Kecskes 2007).](image)

When the concept in the first language is activated, it tends to trigger related concept(s) in the second language. It is hypothesized that the qualitative change in CUCB, or the blending that creates synergic concepts, happens only after a definite amount of acquired quantitative change. It means the language user must know how to utilize their linguistic repertoire to regulate the conceptual blending. The development of synergic concepts in the CUCB can result in the maturity of bilingual learners in their vocabulary usage and wording in contexts, either in the first or second language’s socio-cultural environment. That being said, socio-cultural conceptual meaning and its encoded connotations are critical elements of a synergic concept. The connotation of socio-cultural conceptual meaning properties refers to the triggered emotions attached to words that stimulate an explicit denotational or ‘secondary’ emotional meaning. The emotion, though it exists among the whole of mankind, indeed varies depending on the local socio-cultural contexts of use. Compared to neutral words, the emotion-laden sociocultural conceptual meaning included in a concept can cause salient and emotional differences in language usage across languages (Altarriba and Canary 2004; Pavlenko 2008). In translation studies, such sociocultural conceptual meaning that constitutes a word’s connotation is called “a cultural filter” (Katan 2009), which is a means that helps translators to capture cognitive and socio-cultural differences when mediating between languages.

If a language user is competent at regulating the socio-cultural synergic concept, he or she is able to select the most appropriate word that is preferred by the native speakers of that target language context and inhibit alternative words during translation. Otherwise, lexical idiosyncrasies would be formulated after the translation process from L1 to L2 and vice versa. Lexical idiosyncrasies, as one of the indicators of synergic concepts, are defined as lexical units that deviate from the word choices of a L2 native speaker. They are the linguistic outcomes caused by the underlying mental processes (cross-linguistic interferences; confusion among parallel activated word networks; conceptual confusion)
and the pragmatic epistemology (lack of target-language socio-cultural knowledge; L1 saliency overriding L2 context; contextual restrictions or misinterpretations).

For example, take a look at a sentence produced by a Chinese–English bilingual individual in English in my corpus when she had to rewrite her Chinese essay into English:

"In a lot of individualism culture, where there are so many privatized companies, the market is extremely competitive, and this makes the market unstable with the consequences of depression."

"Individualism culture" and "privatized companies" were marked off by the English native speaker/writer because the wording is not natural in the socio-cultural contexts of the American English community. The substitutes proposed by the raters for (1) is "individual-focused cultures" and for (2) "private companies". The lexical idiosyncrasy index is calculated as the number of lexical idiosyncrasies divided by the total number of words. The hypothesis was that the higher the qualitative synergic change is, the fewer lexical idiosyncrasies would be found.

3. Research Questions

The current study sought to investigate how Chinese–English bilingual writers studying and living in the United States demonstrate their word production from L1 to L2, in comparison to Chinese–English bilingual writers studying and living in mainland China and to monolingual writers in the U.S.A. The research questions that guided the investigation were as follows:

Research Question 1: Does the location (China or the U.S.A.) where conceptual socialization mainly takes place have any impact on the most salient connotation of concepts embedded in the socio-cultural loads?

Research Question 2: How are L1-based concepts reconceptualized across different socio-cultural contexts of language users?

Research Question 3: Are there any statistically significant differences in lexical complexities (including lexical density, lexical diversity, and lexical sophistication) among three groups and lexical idiosyncrasies between two groups of Chinese–English bilingual writers?

4. Methodologies

4.1. Participants

A total of 45 students participated in the study, including 30 sequential Chinese–English bilingual students (13 males and 17 females) from two parallel-level senior classes, and 15 English monolinguals born in the U.S.A. The 30 bilingual students who participated claimed that they had not learned the third language prior to this study. All recruited participants were screened for similar characteristics, including the department (School of Education), university major (English language education), the educational background in China and in the U.S.A., the age at which they started to learn English for the bilingual groups, and four years spent in an English-speaking environment for the bilingual group in the U.S.A.

The first group of bilingual students (N = 15) comprised senior undergraduate students from a university in the Northeastern United States. The second group of bilingual students (N = 15) comprised senior undergraduate students from a university in Northeastern China. All students needed to submit their Test of English as a Foreign Language (TOEFL) scores (for four language skills) either for admission as international students or as English language proficiency certification for graduation requirements. Meeting the required scores for language proficiency at their current level of education indicates that they are categorized as advanced English language learners. For this study, only their writing scores were recorded. The mean scores of both groups (M = 26.13, SD = 1.99, for the group in the U.S., and M = 25.33, SD = 3.1, for the group in China) are relatively similar to each other and were ranked as "good writing" for advanced-level language learners according to the rubrics of the TOEFL assessment.
There is a statistically significant difference in the amount of time using English between the Chinese–English bilinguals in the U.S.A. and those in China \(t(14) = 4.9, p < 0.05\). Chinese–English bilinguals in the U.S.A. reported using English on a daily basis in academic situations (e.g., attending classes, doing homework, and taking exams) and in daily interactions outside class time. The Chinese–English bilinguals in China did not use English often besides class time. It is common that by the last year in university, the students are supposed to have around 10–11 years of formal training in the English language, starting officially in the national curriculum of China in secondary school. The average length of stay in the United States was a bit more than four years because some learners had studied abroad since high school. No students in the bilingual group in China had ever been to an English-speaking country for more than a year. The details for participants’ profiles are summarized in Table 1 below.

### Table 1. Participants’ profiles.

<table>
<thead>
<tr>
<th>Language Backgrounds</th>
<th>The Bilingual Learners in the USA (BUS)</th>
<th>The Bilingual Learners in China (BCH)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>21.33</td>
<td>1.91</td>
</tr>
<tr>
<td>Years of studying English</td>
<td>12.66</td>
<td>2.09</td>
</tr>
<tr>
<td>Hours spent on using</td>
<td>9.20</td>
<td>2.83</td>
</tr>
<tr>
<td>Lengths of stay in the USA (years)</td>
<td>4.06</td>
<td>1.68</td>
</tr>
<tr>
<td>Self reported TOEFL writing score (Max = 30) (or IELTS writing score equivalent to 6 or above)</td>
<td>26.13</td>
<td>1.99</td>
</tr>
</tbody>
</table>

4.2. The Study Instruments

There were two tasks designed for this study. The first task is a visual-stimuli survey which is designed to gain more insight on how culturally and historically situated meaning constitutes the salient valence (positive, neutral, or negative) when language users process a word in CUCB. The word concepts and words used in the first translation task ensured the following conditions to trigger the mental representation of bilingual lexicon: (1) reflecting the naturalistic language production in a cross-cultural translation setting (Pavlenko 2003), (2) involving visual elicitation (Englert et al. 2006), and (3) simulating a think-aloud narrative protocol (cf. De Bot 2003; Dong et al. 2005; De Groot et al. 2002; Müller-Lancé 2003). Here is the rationale for designing this task. I created a translation task using seven visual aids corresponding with seven prompted word concepts written in English. Students needed to (1) explain the word concept as a definition in both Chinese and English languages, (2) translate the English word into Chinese, and (3) determine whether the concept, as well as the word pair, is more negative, neutral, or positive to them. The participant chose only the most salient feeling they had about the word pair. An example of the word concept [MARRY] and students’ sample answer with translated word pairs in English and Chinese can be found in Figure 2 below.
In this study, I did not focus only on noun concepts which denote nominal concepts and seem to be prevalent in most languages. According to Elfenbein and Ambady (2002) and the classic concepts’ categories of Murphy (1988), concepts in the mind can be considered noun, verb, and adjective specific concepts. In short, in this study, I called them noun concepts, verb concepts, and adjective concepts, accordingly. Additionally, since English includes compound nouns which can be translated into a single or compound words in another language, I also included what Mezghanni and Gargouri (2017) referred to as “compound nouns concepts”. The inclusion of different types of concepts indicates the hypothesis that the contextual saliency and connotation of a word, which affects the concept translation into word definitions and English words to Chinese words, may be different from noun concepts to verb concepts to adjective concepts, et cetera.

To select the concepts, I focused on concepts in American culture that carry a loaded sociocultural meaning that is distinctively different from Chinese culture. Secondary research was conducted to select those concepts from classic publications on the contrastive differences between Eastern and Western core socio-cultural values. Specifically, a literature review was conducted, including the publications from 2000 to 2020 on the databases of EBSCO on English and Chinese translational studies of culturally loaded words (e.g., Dejiang 2000; Jianzhong 1998; Mingdong 2003) and Chinese cultures and preferred ways of metaphorical thinking (cf. Chinese Culture Connection 1987; Holt 1997; Oyserman and Lee 2008; Wang 2012; Yu 2003). The researcher summarized the following unique and specific socio-cultural loads representing Chinese values, which are the construct of unity within an extended societal network, collectivist way of thinking and behavior, societal harmony and stability, and Confucian views on gender roles. Seven concepts, which are put into the symbol of a bracket [ . . . ], were selected with corresponding word pairs in both languages. The intended concepts, which were used in those selected cross-cultural studies, are presented in Table 2.
The Design of Socio-Cultural Concepts

<table>
<thead>
<tr>
<th>The Conceptual Domain Belong to</th>
<th>The Format of Selected Socio-Cultural Concepts in the Survey</th>
<th>Word Pairs Elicited from the Participants</th>
<th>Types of Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>the construct of unity within the extended societal network</td>
<td>Chinese culture values the people who have long experience in a specific area or activity, such as in corporate context or even in the Internet online participation. Thus, the new people or new ideas are requested to be humble and fit into the norms and the tradition of the seniors. (cf. Li et al. 2018; Zhang and Seta 2018; Wan 2015)</td>
<td>[ROOKIE]</td>
<td>Noun</td>
</tr>
<tr>
<td>Collectivist way of thinking and behavior</td>
<td>Collectivism and individualism are considered cultural syndromes. Chinese culture treasures the values of collectivism in which prioritizes the practice or principle of a group over each individual member. (cf. Triandis 1988, 1993; Yan 1998)</td>
<td>[INDIVIDUALISM]</td>
<td>Noun</td>
</tr>
<tr>
<td>Societal harmony and stability</td>
<td>Chinese culture values the concept of face, the conformity, gentleness, politeness, and fixed order in communication and behavior. (cf. Dong and Lee 2007; Pratt 1991)</td>
<td>[AGGRESSIVE]</td>
<td>Adjective</td>
</tr>
<tr>
<td>Confucian views on gender roles</td>
<td>Chinese culture values the concept of distinctive gender roles between males and females. Males are expected to behave and take charge of specific duties, and so do the women. Such cultural practices involve important events such as childbirth, wedding, the first male child representing the honor of the family, etc. (cf. Hu 2020; Zhao 2008)</td>
<td>[MARRY (into the bride’s house)]</td>
<td>Verb</td>
</tr>
</tbody>
</table>

While the first task deals with concept explanation, word translations and connotation ratings, the second task deals with the translation of a whole essay. Argumentative writing is the most familiar and common writing task that allows university-level students to express their reasoning thinking as well as their personal opinions (Chapelle et al. 2010). A topic in sociology from Livesey (2014), an entry-level college coursebook used in the United States, was purposefully selected and modified because all seven selected socio-cultural concepts belong to the social/cultural field of study. The topic prompt was “Discuss the advantages and disadvantages of social mobility in a globalized society. Do you think social mobility should be encouraged in society? Explain your answers with supporting ideas and details in your first language. Next, rewrite the text in your second language. Your essay should be about 200–300 words in each language”. The essay task also requires the participants to include all seven words from the previous task.

4.3. Data Collection Procedures

All groups were asked to complete the visual-aid elicitation and translation survey whose contents are described above. Then, they were required to complete an essay writing task. The whole data collection took approximately one hour in total for a participant to finish. In the first task (15 min), the students were given seven English lexical concepts. They had to define the concept in their own words. Their explanation and definition of the concept is both in English and Chinese. The student participants wrote down their answers to elicited questions, “What does the concept of [MARRY] mean to you? In what kind of contexts would you use the word “marry”? Please translate “marry” into your first language”. Students could not use any dictionaries when completing the task. For instance, here was a student’s answer to the concept [MARRY], “The concept, in my definition, triggers the words related to and could be translated to 失望 (to lose face; humiliation), 低人一等 (inferior), 吃软饭 (a young man paid or financially supported by an older woman to be her escort or lover), 女尊男卑 (female superiority), 吃软饭 (depend on
the women), unequal, and 入赘 (burden/responsibility), “lacking abilities”, “weak men.” That student also explained what went on in his mind when he needed to define the word during this language switching, “[MARRY] could be defined as two people who are in love and who are willing to bond with each other “permanently”, “till death do us part”, “with great commitment and I usually link it to religious institutes, especially church, and governmental offices where a marriage is officialized”.

After the questions concentrated on defining the conceptual meaning and the socio-cultural meaning embedded in the concept, students had to translate the English word denoting and representing the concept into one Chinese word which they considered an equivalent word to the English word. For the concept [MARRY] and the picture above, students agreed that 入赘 is the equivalent translation in the context that the image creates a context of use. Finally, student participants needed to select the most salient connotation (negative, neutral, or positive) underlying the concept. In other words, the connotation reflects how the socio-cultural concept triggers the translating process and related words being activated.

In the second task, the bilingual student participants were asked to use the seven words in the first task in their essay. First, the students needed to write the essay in the Chinese language. Then, they were required to translate it into English language. The second task (40–45 min) took place right after the first task was complete. The monolingual participants were asked to write their essay in English only.

Finally, after the preliminary results of the quantitative data were generated, two one-hour focus group interviews were carried out with volunteer participants in the bilingual groups in the USA and China. They were asked to discuss their translating process during writing or language production when they had to use a word in a target context in Chinese and English essays.

5. Data Analysis

5.1. The Analysis of Translated Word Pairs and Salient Connotation Ratings in CUCB for Each Word Pair

The students’ definitions of each concept and their selection of salient connotation were used to understand the rationale and the contextual underlying their word translation. Thus, all the definitions were put into NVivo 11 software to determine the similarity across each student’s definition scripts in each group. The translated words were also compared within each group to determine the word that most students in a group agree upon. For all seven of the word concepts cited in this study, 99.8% agreement was reached amongst students in both two bilingual groups in terms of their Chinese translated words. Student participants then received a report of word concepts’ definitions and approved it in the follow-up focused interview to minimize the researcher’s self-translation in interpreting the data.

Next, a two-sided Fisher’s exact test (FET) with the α = 0.05 was applied for each pairwise group comparison to determine whether there is a statistically significant difference among the three groups regarding their selection for the most salient socio-cultural connotation properties embedded in a word. The dependent variable in this test was the selection of most salient socio-cultural connotations (negative, neutral, or positive) embedded in a lexical concept. The independent variable was the location where the conceptual socialization mainly takes place (in China or the U.S.A.).

5.2. Lexical Complexities Measurements

All the lexical complexity measurements were calculated by lexical analysis software provided by Text Inspector for lexical density (developed by Professor Stephen Bax), CLAN for lexical diversity (MacWhinney 2000; McCarthy et al. 2006), and Vocab Profiles for lexical sophistication (adapted from Coxhead 2002). The selected corpus for lexical sophistication analysis was the Academic Word List [AWL] (Cobb n.d.; Coxhead 2000; Heatley et al. 2002). Additionally, the quantitative analysis of the collected data was analyzed with the aid of
Statistical Package for the Social Sciences (SPSS). The data obtained from 45 participants of the study were analyzed using one-way analysis of variance (ANOVA) and independent samples t-test. The researcher used $\alpha = 0.05$ for all statistical tests.

5.3. Lexical Idiosyncrasies Coding from the L2 Translated Texts

Two English native-speaking lecturers were recruited to participate in the open coding of lexical idiosyncrasies. Each rater met with the researcher and underwent training about coding lexical idiosyncrasies. The rater had to explain why the wording deviated from the norm in English. An excerpt of a judgment that was carried out by one of the raters can be found in Figure 3.

Figure 3. Idiosyncrasies in wording detection and evaluation.

After the first round of coding individually, their preliminary evaluation was collected for calculating the rating consistency. Additionally, a follow-up coding session was scheduled. Two raters sat down with each other and compared their assessment until an agreement was reached. Rating consistency was calculated again to ensure the judgement consistency between the two raters.

6. Results and Discussions

6.1. Research Question 1: Does the Location (China or the U.S.A.) Where Conceptual Socialization Mainly Takes Place Have Any Impact on the Most Salient Connotation of the Socio-Cultural Concepts?

The statistics represent whether there is a statistical difference in participants’ selection of most salient sociocultural connotation of a word pair (whether the word pair sounded negative, neutral, or positive to them). If there is a statistical difference between two groups’ preferences for the most salient connotation of the socio-cultural concepts, the result is highlighted in yellow and demonstrated in Table 3. Group 1 comprises the Chinese–English bilingual students in China. Group 2 comprises the Chinese–English bilingual students in the U.S.A., and group 3 comprises English native speaking monolinguals in the U.S.A.

Table 3. The statistical difference in socio-cultural conceptual properties blending pertaining to locations of conceptual socialization.

<table>
<thead>
<tr>
<th></th>
<th>Word 1</th>
<th>Word 2</th>
<th>Word 3</th>
<th>Word 4</th>
<th>Word 5</th>
<th>Word 6</th>
<th>Word 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1&amp;2</td>
<td>0.508</td>
<td>0.343</td>
<td>0.409</td>
<td>0.71</td>
<td>0.039</td>
<td>0.038</td>
<td>0.280</td>
</tr>
<tr>
<td>Group 2&amp;3</td>
<td>0.015</td>
<td>0.19</td>
<td>0.346</td>
<td>0.345</td>
<td>0.281</td>
<td>0.004</td>
<td>0.027</td>
</tr>
<tr>
<td>Group 1&amp;3</td>
<td>0.0002</td>
<td>0.021</td>
<td>0.276</td>
<td>0.999</td>
<td>0.00019</td>
<td>0.004</td>
<td>0.021</td>
</tr>
</tbody>
</table>

If there is a statistical difference between two groups’ preferences for the most salient connotation of the sociocultural concepts, the result is highlighted in yellow.
6.1.1. Socio-Cultural Concepts Underlying Nouns

Figure 4 indicates that the first socio-cultural concept [ROOKIE] was translated into “菜鸟” in Chinese and “rookie” in English by all bilingual students. Furthermore, the concept and the translated word pair triggers mostly negative connotations in the conceptual system—CUCB—of bilingual students in China. In total, 80% of the participants in this group chose a negative connotation for this word pair. In their explanation of the concept, they explained that in Chinese culture, this concept carries a negative connotation that makes them think of 小白 (noob), 傻帽 (idiot), 笨脚 (stupid), 笨手 (stupid), 笨手笨脚 (clumsy), 逞强争胜 (stupid), and even more, 抱大腿 (ride on one’s coattails to achieve something and be incapable of doing something alone), or 坑队友 (a pit hole). In a total contrast, only 13.3% of monolingual Americans perceived “rookie” with a negative connotation since this concept indicates someone who is new to an activity or an organization. Hence, they considered it a neutral concept from their American socio-cultural background. Such a difference in the conceptualization of [ROOKIE] between those two groups was statistically significant (P = 0.0002, FET).

![Figure 4. The most salient socio-cultural connotation rated by each group for [ROOKIE].](image)

For bilinguals who had spent four years in the U.S.A., their evaluation on the connotation embedded in this lexical concept changed. Only 53.3% of the participants in this group rated the lexical socio-cultural concept [ROOKIE] as having the negative connotation, which is a lower percentage compared with those in China. Up to 40% of them evaluated the concept more as a neutral one. Like their American peers, they started to recognize that “rookie” could be exclusively used in the context of American culture if a person is new to a sport, such as referring to a newcomer or a newbie in a baseball game. The connotative rating of bilingual students in the U.S.A. is different from the other two groups, but such a difference is not statistically significant (P = 0.306 and P = 0.050, respectively, FET).

The trend of connotative salience is similar for the second socio-cultural concept [INDIVIDUALISM]. All participants translated the word “individualism” into “个人主义”. Figure 5 shows that there is a statistically significant difference (P = 0.021, FET) between the bilingual groups in China and the monolingual American students. A total of 53.3% of participants who are bilingual students in China selected a negative connotation while only 6.7% of participants who are monolingual students in the U.S.A. agreed with them. Instead, 73.3% of monolingual American students claimed that [INDIVIDUALISM] and the word pair triggered positive connotation. Explaining how this word can be translated into “个人主义 which carries a negative meaning, the bilinguals in China stated that [INDIVIDUALISM] indicates 自私 (selfishness), “a hindrance to the development of society”, “the act of caring for oneself” interests only and dominating others”, “chasing one’s own
benefits, especially materialistic value orientation”, “自我保护 (ego-centric arrogance/self-centeredness)”. Moreover, this word conceptually links with the image of being isolated from society and indicating a lonely and unsociable person (e.g., such as in the idiom of “独来独往”). On the contrary, American language users explained that this concept links to “self-care”, “self-reliance/independence”, “self-sufficiency”, “identity/self-expression”, and “personal uniqueness”. There was also a shift amongst those who had stayed in the U.S.A. at least for four years. A total of 60% of the bilingual participants in the U.S.A. thought of a positive connotation when referring to this concept.

To conclude, the connotative preference of the lexical concepts and the noun word pairs are significantly different between the U.S. and China. After four years of residence in U.S. and L2 socio-cultural exposure, the connotative preference of this group, though not yet significantly different from their L1 socio-cultural connotation, has come closer to the native speakers’ connotative preference. The results about the nouns demonstrate the domineering L1 socio-cultural concept underlying translated words, yet such dominance of L1 seems to gradually be mediated by the influence of L2 meaning gained through L2 sociocultural intake as the bilinguals continue living, socializing, and assimilating into the American culture.

6.1.2. Socio-Cultural Concepts Underlying Adjectives

In Figure 6, the socio-cultural properties are embedded in the lexical concept [AGGRESSIVE] could be found in the natural translations of “aggressive” definition into Chinese language. Almost all bilingual students agreed that the word pair “争强好胜—aggressive” are the equivalent translations. The concept and the word pair mainly triggered negative connotations in all three groups: the bilingual students in China (60%), the bilingual students in the U.S.A. (53.3%), and the monolingual American students in the U.S.A. (80%). However, the results showed that the bilingual language students in China rated this concept more positively (33%) than the monolinguals did (6.7%). After four years in the U.S.A., only 20% of bilingual students in the U.S.A. remained positive as the most salient connotation in their selection, while 26.7% evaluated this concept and the word pairs with a neutral connotation.
For the second adjective, Figure 7 shows that the adjective word “unique” is translated into “独特” and its embedded lexical concept underlies the word pair is [UNIQUE]. Bilingual students in the U.S.A. also had the highest percentage in evaluating this concept and the word pairs as a neutral connotation (66.7%). The other two groups agreed that a negative connotation was more salient in their CUCB (46.7% for the bilingual group in China and 53.3% for the monolingual group in the U.S.A., respectively). It is because this concept, according to them, denotes the quality of “being unique means that one showcases unusual aspects or abilities that would be discriminated by the society; to be a black sheep”. In the socio-cultural aspect in China, they relate to (when conceptualizing this concept) the image of a crane standing in a flock of chickens, which corresponds to the Chinese idiom—鹤立鸡群.

In brief, the adjectives show that the connotative preference changes in the bilingual group in the U.S.A., demonstrating divergent thinking in their selection, which is dissimilar to the other two groups. They thought that the lexical concept and the activated word pair posed neither a positive nor negative connotation. The content analysis coming up later demonstrated that the bilinguals in the U.S.A. incorporated meaning aspects from
both languages, Chinese and English. They took into consideration both linguistic and cultural sources to generate the elaborative meaning, prompting most of them to select the neutral connotation. Their connotational preference can be an example of what is called a “third culture” that is not identical or qualitatively equal to either the L1 or L2 socio-cultural concepts.

6.1.3. Socio-Cultural Concepts Underlying Verbs

For the first verb word pair, all bilingual students translated “入赘” into “marry” and its corresponding concept was [MARRY]. However, the socio-cultural properties belonging to Chinese culture underlying “入赘” depicts the socio-cultural-specific fact that a groom is married into the bride’s house (Jue 2019). Additionally, their children take the last name of the mother. Such socio-cultural specificity does not exist in American culture at all. The difference in the lexical connotational preference between the bilingual groups in China and the U.S.A. is thus significantly different (P = 0.00019, FET). Figure 8 shows that most people referred to it as having a negative connotation (73.33%) when using the Chinese word in context. On the contrary, the bilingual students who had stayed in the U.S.A. incorporated additional L2 socio-cultural meaning aspects into their existing knowledge, so they would not end up selecting the negative connotation. They incorporated the conceptual meaning aspects of L2 speech community into their conceptual base, and a large percentage of them thought of that concept in a more neutral way (53.33%). That change in their connotative preference is significantly different from those in China, even though they shared common ground in Chinese culture (P = 0.039, FET).

Figure 8. The most salient socio-cultural connotation rated by each group for [MARRY].

The second verb indicates that the bilingual students translated “privatize” into “私有化” to denote the underlying lexical concept of [PRIVATIZE]. Interestingly, the linguistic translations did not quite reveal the different history of that word use, which is deeply rooted in American capitalist culture and American politics (Schuster 1998). In Figure 9, most of the monolingual participants in the U.S.A. (80%) selected a neutral connotation when they evaluated the most salient contexts in which the word “privatize” mostly applies, whereas the bilingual participants in China selected a negative connotation (66.7%). In Chinese culture, the word “privatize” denoting the concept [PRIVATIZE] triggered the resistance from the communist economists who favored a central government and state control, so democratization or privatization was not welcomed (Sun and Tong 2003). That frequency of connotative distribution of the bilingual group in China and the monolingual group in the U.S.A. is thus statistically significant (P = 0.004, FET).
Figure 9. The most salient socio-cultural connotation rated by each group for [PRIVATIZE].

In this case, the connotative choices of the bilingual students in the USA are not significantly different from those of the Americans. A total of 46.7% of the bilingual students in the U.S.A. tend to maintain the same connotative preference as their peers in China, which is the negative connotation. Thus, even after four years, there is still a significant difference between the bilingual students in the U.S.A. and the American monolinguals (P = 0.004, FET), while the difference between them and the bilinguals in China is not statistically noticeable.

In the case of verb class, the connotative preferences demonstrated a varied degree of modification among bilinguals in the U.S.A. Their preference depends on the dominant ideologies of the underlying socio-cultural conceptual loads. Specifically, if the socio-cultural conceptual load is heavily indoctrinated and broadcast in a specific speech community, that socio-cultural conceptual load would dominate the conceptual blending and may become fossilized and resistant to conceptual change. That is why the bilingual students in the U.S.A., through conceptual socialization and mass media in America, are heavily influenced by the spreading neutral connotative preference in American culture with the concept [MARRY] and its activated words. This is an example of the assimilating L2 socio-cultural concept. In a stark contrast, [PRIVATIZE] socio-cultural load and its activated words stay dormant as a negative connotation, as in Chinese socio-cultural contexts. This is, again, an example of the domineering L1 socio-cultural concept.

6.1.4. Socio-Cultural Concepts Underlying Multi-Words

The last word class is the idiom and multi-words. In Figure 10, even for the multi words, the translated word of “social climber” is “哈巴狗”, referring to its underlying lexical concept [SOCIAL CLIMBER]. A total of 73% of bilingual students in China and up to 80% bilingual students in the U.S.A. selected the negative connotation. According to them, this Chinese translated word adds a negative aspect into the English word because in Chinese culture, “哈巴狗” means 势利小人 (snobbery), [讨好的 (obsequious)], [谄媚者 (sycophant)]. The participants explained that the conceptual equivalence of the phrase is the idiom 见利忘义 (meaning: to see profit and forget morality). Additionally, more than half of the participants claimed that the phrase reminds them of the people at a workplace who target the boss and flatter him/her. In American culture, “social climber” is a person who tries to increase their societal standing, usually with a hard-working attitude, to become one of the “elitists”, “go-getters”, “a social butterfly”, and “socialites”. A student explained, I guess I’d use this for someone who really strives to grow their reputation in a
community or organization and work gradually towards achieving higher levels of status within said setting”.

![Figure 10](image)

**Figure 10.** The most salient socio-cultural connotation rated by each group for [SOCIAL CLIMBER].

In addition, after four years of conceptual socialization, [SOCIAL CLIMBER] lexicalized as “哈巴狗” hardly transformed its saliency in L1 culture, though the bilinguals in the U.S.A. incorporated the positive connotation as acquired from the L2 target socio-cultural load. Thus, the L1 socio-cultural concept dominates in the synergic concept. On the other hand, only 33.33% monolingual American students thought that such a word pair indicated a negative connotation. The difference between the monolingual group and the two bilingual groups is also statistically significant (P = 0.021 and P = 0.027, respectively, FET).

6.2. Research Question 2: How Are L1-Based Concepts Reconceptualized across Different Socio-Cultural Contexts of Language Users?

Although the translated word pairs are similar and agreed amongst the bilingual students, their connotation rating is somewhat different between two groups. In other words, the conceptual description elicited in each bilingual group revealed the nature of synergic concepts and connotational saliency, which are the results of their intercultural communication and sociocultural intake.

First of all, the socio-cultural concepts in a language may trigger the same connotative reference, yet the norms and conventional thoughts can be diverse and accentuate different conceptual aspects after series of intercultural encounters and communicative contexts. For example, to be unique, in addition to other overlapping activated aspects in meaning with the American students (e.g., being talented and being a creative self), “unique” also means that a person can demonstrate a far-reaching vision and forethought, which is an intellectual trait, in Chinese culture. The related words in Chinese were 独特, 有创造性 (having creativity), 灵感 (generating inspiration and insightfulness), and 超前 (advancing in a field). In contrast, the monolingual American students defined being unique as having a good-looking complexion and appearance, and the word has little to do with denoting the concept of forecasting abilities. The monolingual American opted for “weird” or “strange”, yet the Chinese students still used “unique” to indicate the unusual aspects or abilities that would be discriminated by society and be used to refer to a person who is like a black sheep in that society.

Second, the conceptual blending of socio-cultural conceptual loads reveals how bilinguals who have been experiencing L2 conceptual socialization can become different from their counterparts in terms of conceptualization, even though the linguistic translations are similar to each other. Vice versa, even though the bilingual groups in China provided the
vocabulary in L2, their lexical conceptual level is far more reliant on the L1 socio-cultural conceptual knowledge. On the contrary, by having a constant conceptual socialization in the L2 context of use, bilinguals in the U.S.A. could relate more to the L2 native speakers/writers. For instance, one bilingual student in the U.S.A. answered in the interview that he could enhance metalinguistic awareness after comparing one concept used in two cultures, which resulted in different activated translated words:

The concept [INDIVIDUALISM] in Chinese culture indicates people who cannot fit in a group and care only about themselves to gain their benefits or 自私 (selfishness). However, I would say that it activates, also, the thought of independence in my mind. While the first activated socio-cultural aspect belongs to L1 socio-cultural properties, the latter belongs more to L2 socio-cultural properties. I know that for an English native speaker, [INDIVIDUALISM] is contextualized with the heroism idealization in Hollywood and American culture.

Thus, the participant elaborated his synergism in CUCB, “the idea of individualism does not conflict with unkindness, and it reminds me of having my state of mindset and having more chances to reflect on my own life”. Consequently, the reconceptualization of the given concept and its activated word pair takes place when the language users can articulate the contrastive socio-cultural concepts from both cultures and societies.

Third, the statistical results and the qualitative content analysis reported above prove that a synergistic effect of different socio-cultural loads embedded in lexical concepts is detected across the groups in all word classes (noun, verb, and adjective) and multiword associations to a varying degree. That synergism can be demonstrated by both the change in connotative preference of lexical concepts and the articulation of lexical knowledge. The synergic symbiosis after four years of residence in an American socio-cultural context indicates that the bilingual students in the U.S.A. included more conceptual notions that start to resemble the norms practiced by L2 users more than those in China. However, the nature of that blending is the combination of both L1 and L2 socio-cultural conceptual aspects. For example, the concept [MARRY] is lexicalized into “marry” and “入赘” in the CUCB of bilinguals in the U.S.A; they included both the L1 cultural doctrine (e.g., considering finance/financial stability, social status enhancement, family duties, gender roles, “commitment”, “family-oriented”, and “harmony”, which would affect the couple) and the “connection”, “love”, and “care” that represent L2 salient meanings. The reconceptualization is caused by the blending of both L1 and L2 socio-cultural concepts.

The thing is, the bilingual groups do not merely follow the norms, the preferred ways of thinking, and the word usage as they do in L1. The modification of those synergic concepts also depends on the dominance of either L1 or L2 root socio-cultural concepts or the balance between them. Such interaction or blending between L1 and L2 may change over time. Overall, the patterns of modification in this study detect the following types of conceptual blending in a synergic concept: the domineering L1 socio-cultural concept, the well-blended L1 and L2 socio-cultural concept that results in a “third culture”, and the assimilating L2 socio-cultural concept.

6.3. Research Question 3: Are There Any Statistically Significant Differences in Lexical Complexities (Including Lexical Density, Lexical Diversity, and Lexical Sophistication) among Three Groups and Lexical Idiosyncrasies between Two Groups of Chinese-English Bilingual Writers?

Although all students in this study obtained a relatively advanced linguistic proficiency, they demonstrated their translation skills from L1 texts to L2 texts using the prompted words to varying degrees.

6.3.1. Lexical Density

Before calculating lexical density index, the total number of words was recorded. The U.S.A. monolingual group \( (M = 147.87; SD = 59.69) \) produced the most words within the timed essay writing. Next was the bilingual group in China \( (M = 128.60; SD = 45.10) \) and the bilingual group in the U.S.A. \( (M = 110.53; SD = 55.73) \). However, such differences in the
total words produced in the essay across the three groups statistically were not significantly different from each other, $F(2,42) = 1.802, p > 0.05$.

As can be seen from Table 4 and Figure 11 below, the mean scores of the lexical density index in the bilingual group in the U.S.A. ($M = 67.87; SD = 7.76$) are higher than those of the bilingual group in China ($M = 65.20; SD = 8.65$) and the monolingual group in the U.S.A. ($M = 64.86; SD = 7.08$). However, such a difference in the lexical density index scores among the three groups was not statistically significant, $F(2,42) = 0.659, p > 0.05$. These results suggest that bilingualism among L2 advanced students could take place in either U.S.A. or China, but it does not affect the number of content words produced in English writing, which can be demonstrated via lexical density measurements.

### Table 4. Lexical density among the groups.

<table>
<thead>
<tr>
<th>Density Measurements</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>81.409</td>
<td>2</td>
<td>40.705</td>
<td>0.659</td>
<td>0.523</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2593.779</td>
<td>42</td>
<td>61.757</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2675.188</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 11. Bar Mean of Density Measurements by the sociocultural conceptualization locations.](image)

6.3.2. Lexical Diversity

Table 5 and Figure 12 show that the mean scores of lexical diversity index in the U.S.A. monolingual group are the highest ($M = 76.17; SD = 13.50$), followed by the bilingual group in China ($M = 73.95; SD = 18.86$). The bilingual group studying in the U.S.A. has the lowest lexical diversity scores ($M = 66.15, SD = 27.18$). The one-way ANOVA test results showed that there is also no statistically significant difference in the lexical diversity index scores across the three groups, $F(2,42) = 0.659, p > 0.05$. These results suggest that whether from the U.S.A. or China, the bilingual students who have an L2 advanced proficiency level are not different regarding the diversity of their word choices in English, which can be demonstrated via lexical diversity measurements, compared with the monolingual ones.
Table 5. Lexical diversity among the groups.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>832.099</td>
<td>2</td>
<td>416.049</td>
<td>0.977</td>
<td>0.385</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17,884.689</td>
<td>42</td>
<td>425.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18,716.788</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 12. Bar Mean of Lexical Diversity scores by the sociocultural conceptualization locations.

6.3.3. Lexical Sophistication against AWL Corpus

Table 6 and Figure 13 show that the scores of lexical sophistication, compared in the AWL corpus was statistically significantly different between different locations where conceptual socialization mainly takes place, $F(2,42) = 5.823, p < 0.05$. The lexical sophistication index was the lowest in the monolingual group in the U.S.A. ($M = 6.26, SD = 1.69$), increased in the bilingual group in the U.S.A. ($M = 7.11; SD = 2.725$), and highest in the bilingual group in China ($M = 9.28, SD = 2.913$). Tukey post hoc analysis revealed that the mean increase from the monolingual group in the U.S.A. to the bilingual group in China was statistically significant at $p = 0.005$, but no other group differences were statistically significant. It means that the bilingual group in China tends to use significantly more low-frequency and sophisticated words. The monolingual American students in the USA used significantly fewer complicated words to articulate their ideas.

Table 6. Lexical sophistication among the groups.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>72.811</td>
<td>2</td>
<td>36.405</td>
<td>5.823</td>
<td>0.006</td>
</tr>
<tr>
<td>Within Groups</td>
<td>262.568</td>
<td>42</td>
<td>6.252</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>335.379</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.3.4. Lexical Idiosyncrasies

The independent samples t-test results were conducted between the two bilingual students’ groups only. I excluded the American monolingual students because I assumed that they would demonstrate what we called the native-like norms of word associations and collocations, and they did not have to perform any translation into Chinese in this second essay writing task. Thus, the independent samples t-test demonstrated that there was a significant difference in mean of lexical idiosyncrasies counts between the bilingual group in China and the bilingual group in the U.S.A., $t(28) = 5.763$, $p < 0.05$, CI [2.406;5.060].

To describe the types of lexical idiosyncrasies when a student translated his or her essay from English into Chinese, I first conducted an inter-rater reliability analysis using the Kappa statistic to determine the consistency among two American raters. The reliability of the interrater analysis was Kappa = 0.867 with $p < 0.001$. This measure of agreement is statistically significant, so the two raters had substantial agreement with each other about their categorization of lexical idiosyncrasies. Because of the paper limit, not all lexical idiosyncrasies detected could be listed out. Table 7 gives some examples of idiosyncrasies in my corpus.

### Table 7. Some examples of lexical idiosyncrasies in bilingual groups.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Lexical Idiosyncrasies in the Bilingual Group in China</th>
<th>Lexical Idiosyncrasies in the Bilingual Group in the U.S.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[INDIVIDUALISM]</td>
<td>• It is good that we have a way or a way out, to keep a part of our individualism.</td>
<td>• Some of them cannot get along with colleagues because of their individualism.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[AGGRESSIVE]</td>
<td>• He is aggressively unique, because he did not want those “social climbers” to gain the higher status.</td>
<td>• Social mobility will inevitably lead to the aggressive flow of people, such as those who originally advocated individualism.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[MARRY (to the bride’s house)]</td>
<td>• Social mobility will bring economic exuberance, individual development and marriage of convenience.</td>
<td>• Many of them have to give up their own business and marry into powerful enterprises.</td>
</tr>
</tbody>
</table>

The qualitative analysis of lexical idiosyncrasies also demonstrates two patterns when the bilingual students translated their English, which can be seen in underlined parts in Table 7. The first pattern is to translate their words without considering and mediating the difference between sociocultural connotation rooted in the first language culture and the second language culture. In this case, students opted for the translation they deemed closest to the literal meaning and word-by-word translation and ignored the differences in the sociocultural loads. An example of this type of lexical idiosyncrasy is when students wrote...
in the English essay, “to get a better future”. Such word choice is awkward and unnatural wording in the American culture since the rater recommended that better wording is “to (move) towards a better future” (or to “obtain” a better future). However, that word “get” is totally collocational and appropriate in the Chinese language when the student expressed her idea as in “获得更好的未来”. Another example of this type of lexical idiosyncrasy could be found in the bilingual groups in China and those who had been staying in the U.S.A. for a long time, “I think social mobility should be encouraged in the society, so people won’t be locked into a small space that will never be changed, which means they have opportunities to get a better future”. The phrase “be locked into a small space” corresponds to a Chinese idiomatic meaning underlying an expression the student used in his Chinese essay to describe a situation of a person being stuck with his or her current situation as if he or she is in a “box”.

In addition, this type of lexical idiosyncrasy indicates that the sociocultural loads in the two languages are not well blended in the conceptual base. Take the most extreme case in the bilingual group in China, who has the highest score of lexical idiosyncrasies (Participant 8). Participant 8 demonstrated a slow rate of conceptual socialization. His synergic concepts signaled more socio-cultural conceptual properties rooted in Chinese culture, and those dominated the conceptual blending. Thus, when it came to his lexical translation from his English essay, he used English in the style of Chinese wording. When compared to his Chinese essay with his English version, the English one mirrored the wording of the Chinese. For example, he wrote, (i) “他有一个争强好胜的性格” (word-by-word translation: He has a character who is eager to win). Correspondingly, he wrote in his English essay, “He is aggressively unique, because he did not want those “social climbers” to gain the higher status (in social mobility)”. This bilingual learner could not have the wording emerge naturally and collocationally in the L2 context. He was not aware that “aggressive” in English does not have the same positive connotation as in the Chinese context. A rater commented, “while combining ‘aggressive(ly)’ and ‘unique’ might work, it is also awkward to process the whole sentence in the sentence context above with a positive connotation”. A more natural way of wording was suggested by the rater, “Because he did not want those incompetent social climbers to gain the higher status, he proves that he is qualified for the position he deserves”. That strategy of wording suggested by the rater asked for the conceptual fluency in both languages. A balanced blending in synergic concepts in CUCB reflects the language user’s pragmatic competence to express thoughts in the preferred way of saying things in a target context.

The second pattern of lexical idiosyncrasy is that the students understood the differences in sociocultural connotations between the two cultures and languages and yet they aimed for a creative translation of the word. Such guess and creative language use is comprehensible for a native speaker/reader, and he or she could continue to process the information. However, a close inspection of language style and word usage could point out that the translation is not totally familiar to him or her. For example, one of the bilingual language users wrote in his English essay, “For instance, by the marriage adoption between different social classes, social mobility could be created”. What he wanted to do here was to transfer the sociocultural connotation of Chinese culture into his English translation, as in Chinese culture, a person’s social status could be “adopted” or “leveraged” with marriage. Yet, such effort to communicate that aspect of culture may sound alienated to the ear of a native speaker. The rater who is an English language teacher suggested, “The translated version made sense to me, but there is missing information, so it does not appear natural, and it needed more clarification to aid my comprehension of the sociocultural context he was aiming”. The teacher suggested a better translated version: “Social mobility could be understood in the context of marriage. Indeed, adopting traditional marriage practices could mean that one person in the married couple could end up enhancing his or her social status.”
7. Conclusions

This study investigated the conceptually equivalent translation written in L2—English—of bilingual students via two tasks of translating and defining individual words and translating texts from L1 to L2. The results and discussions demonstrated that conceptual inequivalences between two languages could interfere with the translation process and language output. On the other hand, the translated tasks might hint at the possibility of a process of ‘contextualizing’ during the translation process in the bilingual mind, whereby interlocutors negotiate how much of the meaning is to be retrieved from the context and how much of the context is shared. If not shared, one can figure out that because the sociocultural meaning embedded in the context is lost, information must be added if the meaning is to remain constant.

The study also shows that bilinguals who are L2 advanced students and major in English language education can demonstrate a relatively high level of language proficiency in a quantitative and qualitative manner. For instance, in terms of linguistic competence, bilingual students’ translation ability can result in a relatively good lexical density and lexical diversity compared against the American native speakers. In terms of qualitative development in the conceptual base, they indeed display varied conceptual blending of L1 and L2 in their CUCB, depending on where their conceptual socialization takes place. Specifically, for those who have stayed in the target environment for a long time, as long as four years in this study, their conceptual blending is stronger than those using English in China. The conceptual blending can be divided into three types: the domineering L1 socio-cultural concept, the well-blended L1 and L2 socio-cultural concept that results in a “third culture”, and the assimilating L2 socio-cultural concept. In addition, the aspects of L1 and L2 socio-cultural loads that are blended are diverse. Even within the same preferred connotation in socio-cultural load, each language may highlight different contextual aspects when the concept attached to the word is articulated. That being said, adding further L2 words does not equate to resembling a native prototypical or salient connotation in the socio-cultural context, or the complete abandonment of the L1 concept, thus, consequently, resulting in idiosyncratic word choices when ideas are translated from one language to another. Such degrees in conceptual blending can result in two types of lexical idiosyncrasies in the translation output; the first pattern is to translate their words without considering and mediating the difference between two languages’ sociocultural connotations, while the second pattern is to create a creative translation. Both patterns of lexical idiosyncrasies exhibit bilingual students’ unique abilities in translating their thoughts to communicate with the target audience and resolve the conceptual inequivalences.

Therefore, pedagogically speaking, translation was abandoned as an option in ESL situations, but definitely not in the state education and in the context of intercultural communication and multilingual education. It is because translation and translated texts play a critical role in enhancing bilingual and multilingual students’ language and cultural awareness (Popovic 2001; Tsagari and Floros 2013). Translation and translated texts create a platform for both teachers and students to scaffold each other’s language use to better communicative abilities across contexts and encourages students to overcome conceptual inequalities. Students are then encouraged to bring up the sociocultural meaning repertoire in their mind and describe it, with the help and open-mindedness of their teachers, in their second language. Such a careful approach to using translation and translated task in language education will free students from idealizing the native speakers, which would hinder their language learning motivation (Cenoz and Gorter 2013) and result in skipping and doubting the gradual natural progress to improve their translation abilities properly. Such an approach fails to solve the problem or enhance the conceptual translation between two languages in the bilingual mind as suggested in the literature review above (Bardovi-Harlig 2009; Granger 1998; Singer and Bashir 2004). Thus, it is crucial to look beyond the linguistic signs or the conceptual structures solely and examine the language translation outcomes of bilingual students integrally in the sociocultural context where it takes place.
To master the translation abilities, a process of reconceptualization in the CUCB is fundamental. This study proves that appropriately and accurately translated words in context depend not on the abilities to translate word by word, but to place the translated words in appropriate collocation with surrounding words in a communicative social context. It does not mean either adding or subtracting concepts in the (mental) bilingual lexicon, but it means a bilingual student adds and reflects on the new L2 conceptual properties to build on what has already existed. The product of such a reconceptualization could result in a “third culture” or a third conceptual space that is different from the conceptual source of each language separately.

Furthermore, lexical idiosyncrasies are the results of the qualitative change of the bilinguals on the level of the linguistic system, which requires them to select and manipulate the word labels consciously, appropriately and precisely in the socio-cultural context. That ability in translating thoughts into words in a target context can be explicitly taught via metalinguistic awareness-raising activities (Roehr-Brackin 2018). The bilingual students in the U.S.A. had significantly fewer lexical idiosyncrasies and lower lexical sophistication, which was similar to the language usage featured by the monolingual group. To reach that high level of qualitative change (or transformation), the bilingual students must not be in the confusing stage of conceptual blending. In other words, they need to attain consciousness in how word-by-word translation is determined by successfully resolving the conceptual inequivalence and determining translated words with contextual appropriateness. A bilingual student in the U.S.A. who has more conceptual socialization in the target sociocultural environment is not just only able to tell the difference pertaining to the semantic meaning of activated word labels in two languages. He or she is able to distinguish at the level of conceptualization when he or she is retrieving lexical concepts and selecting lexical items (Güneş and Ortaçtepe 2019). If the synergic concept is well developed, the language user can switch languages and select not only correct equivalent words in each language, but also can translate with phrases and wording that bridge the conceptual inequivalences and reflect the norms of native speakers of the target language. If the synergy is not well developed, the language user selects incorrect or inappropriate words in a given context. Thus, the focus of the pedagogical implication, therefore, is to enhance the awareness and navigational ability of students in translating single words and words in a contextual discourse. To resolve conceptual inequivalences in translation, language teachers could use different scenarios and contexts to help students identify the connotative differences that a word and different corresponding translated words may carry.

The current study aligns also with a strand of research arguing that bilingual writers make use of their linguistic repertoires and linguistic creativity to demonstrate preferred ways of thinking in a sociocultural context that is different from monolingual writers’ norms of language use and speech style. Therefore, their conceptual translation could be enhanced so that their lexical behavior in each language is more accurate, showing multicompetence (De La Luz Reyes 1992; Kecskes 2010; Ortega and Carson 2010). This important fact is often overlooked when intercultural communication and pragmatics are investigated, and further translation studies in L2 language learning with more diverse populations of language users are needed. The study’s findings also hint at the possibility of future studies, which could prove that the conceptualization of each word class goes through different rates of acquisition. As in this study, the findings align with other studies (e.g., Marsden and David 2008; Myles 2005; Richards et al. 1999) that noun concepts are acquired and reconceptualized first, with verbs second, followed by adjectives and adverbs.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/languages7020094/s1, Appendix S1. Summary of content analysis for word elicitation task.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data details could be available upon request. Please get in touch with the corresponding author directly or refer to the supplementary materials HERE.

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

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