

Article

From Symptoms to Functions: A Contextual Behavioral Framework for Understanding Pragmatic Communication Disorders

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Abstract

Many researchers note that mental disorders can be understood as maladaptive attempts to avoid aversive internal experiences, and propose that a functional approach is required to complement topographical classification. Approaches that are based on the function of behavior can identify basic processes for the development of interventions. From this perspective, communication difficulties can be seen as strategies that are based on avoidance that increase distress. Among these problems are problems understanding metaphors, humor, and irony. Relational Frame Theory (RFT) offers a functional framework from which to analyze these processes. All this is the basis of the interventions that are aimed at promoting more adaptive behavior patterns. Moreover, individuals with Social (Pragmatic) Communication Disorder (SPCD) often exhibit impairments in perspective-taking, which RFT interventions aim to address by developing relational framing skills and social cognition. This paper proposes a functional approach and a theoretical framework for understanding interventions in SPCD through RFT.

Keywords: social communication disorder; functional analysis; relational frame theory

1. Introduction

Researchers have long described language as a multifaceted skill, shaped by phonological, morphosyntactic, semantic, and pragmatic aspects (Bloom & Lahey, 1978; Owens, 2020; American Speech-Language-Hearing Association [ASHA], 2023). The proper development of these components is essential for the individual's effective communication and social participation. Communication abilities are a key factor in adaptive social human development, and the lack of such skills can leave some individuals in vulnerable situations (Swineford et al., 2014). Traditionally, within the field of pragmatic linguistics, difficulties have been classified according to the linguistic component affected. Phonological disorders often manifest as problems with producing or distinguishing speech sounds (Shriberg et al., 2019), while deficits in morphosyntax involve difficulties in grammatical structure and sentence organization (Leonard, 2014), and semantic difficulties affect vocabulary development, comprehension of meaning, and the ability to establish conceptual relationships (Nippold, 2007). All these dimensions have been extensively studied and form the basis for diagnosing language development disorders.



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In recent years, there has been increased interest in a dimension that has been less studied to date and is less obvious, but fundamental to an individual's communicative functioning: pragmatics. This is conceptualized as the contextualized use of language to achieve interactive, social, and conversational goals (Adams, 2002). Pragmatic skills or social communication, moving beyond linguistic competence per se, consist of an individual's various abilities to adapt their speech to the interlocutor; follow conversational norms; understand inferences, irony, or metaphors; and coordinate verbal and non-verbal language (Matthews et al., 2018; Norbury, 2005). Unlike other dimensions of language, the pragmatic dimension depends not only on linguistic skills but also on socio-cognitive processes such as perspective-taking, theory of mind, and behavioral flexibility (Fryling et al., 2020; McHugh et al., 2004; Matthews et al., 2018).

In short, over the years, the study of language and language difficulties has evolved from an exclusively pragmatic–linguistic perspective (which examines relationships within an established system of semantic, phonological and morphosyntactic rules) towards a holistic approach that takes into account both executive function and social communication (pragmatic skills) (Norbury, 2014).

It often has significant consequences when the pragmatic area is affected because it can often include a deterioration in the quality of social interactions, the understanding of the communicative context and participation in both school and communicative activities (Norbury, 2014). These challenges take on particular relevance in the case of Social (Pragmatic) Communication Disorder (SPCD). This is a new diagnostic category first introduced in DSM-5 (American Psychiatric Association [APA], 2013). Unlike other language disorders, SPCD is not characterized by structural problems in grammar or vocabulary. On the other hand, SPCD is defined by persistent difficulties in the use of social language (American Psychiatric Association [APA], 2013). Such challenges can interfere with the ability to establish and sustain relationships, to recognize subtle aspects of communication, and to adapt appropriately to social demands (Swineford et al., 2014). So pragmatic difficulties are considered another type of language development. The impact of these difficulties is not limited to language itself; they also influence how people engage in social life and manage everyday communication. Recognizing this has changed the way communication disorders are conceptualized, drawing attention to the importance of combining theoretical insights with practical strategies in clinical work.

2. Prevalence of Developmental Language Disorder (DLD) and Social (Pragmatic) Communication Disorder (SPCD)

Epidemiological research has shown that one of the most common neurodevelopmental disorders in childhood is language development disorders. It is estimated that the prevalence of Developmental Language Disorder (DLD) ranges from 7 to 10%. Therefore, DLD is one of the most common developmental disorders (Norbury et al., 2016; Tomblin et al., 1997). DLD has more consequences than just the linguistic level. This significantly interferes with the psychological, social and academic adjustment of children.

Several studies suggest that difficulties in early language development can increase the risk of behavioral and emotional problems. Anxiety, depression and limitations in emotional regulation can be part of it (Conti-Ramsden & Botting, 2008; Yew & O'Kearney, 2013). On a social level, children with DLD experience increased rejection by their peers, as well as difficulties in establishing and maintaining friendships, and decreased participation in group activities (Lloyd-Esenkaya et al., 2020).

Taking everything into account, this affects their perception of social competence and overall well-being (Durkin & Conti-Ramsden, 2007). At the academic level, the difficulties experienced by children with DLD jeopardize their access to the curriculum, reading

comprehension, performance, and acquisition of the discursive skills involved in formal learning. As the child progresses through school, this cumulative risk of academic failure increases (Catts et al., 2008).

More specifically, phonological and speech-sound disorders have rates ranging from 2% to 25%, depending on age range and diagnostic criteria (Shriberg et al., 2019; McLeod & Harrison, 2009), while semantic and morphosyntactic disorders are often present in DLD, with approximately 7.6% of children aged 4 to 5 years being affected, as they tend to coexist in a high percentage of cases (Bishop et al., 2017; Norbury et al., 2016). These data suggest that difficulties in language structure are more prevalent and better established epidemiologically than pragmatic skills alterations. This can be attributed to the scarcity of epidemiological studies, as the diagnostic label is relatively recent.

Meanwhile, when considering difficulties relating to pragmatic skills, the available data is limited and varies across different studies; some population-based research suggests that the figures range from 7% to 10% of children (Norbury et al., 2016; Saul et al., 2022). However, a proportion of cases do not strictly meet the criteria for a diagnosis of Social Pragmatic Communication Disorder (SPCD) (Baird et al., 2023; Norbury et al., 2004).

When DSM-5 (American Psychiatric Association [APA], 2013) criteria are applied more strictly, the reported prevalence of SPCD tends to be lower than in initial estimates. This decrease may be due perhaps to the exclusion that overlaps with autism spectrum disorder (ASD) or other language difficulties (Mandy et al., 2018).

This overlap between the two disorders highlights the narrowing effect and emphasizes the importance of performing a thorough differential diagnosis (Swineford et al., 2014).

Some studies have suggested that diagnoses should be made between 4 and 5 years of age. This is because at that age it is expected that children have acquired speech and language skills (Swineford et al., 2014). At that age they usually achieve milestones such as following the rules of conversations, understanding the double meanings or adapting speech (Norbury, 2014). As children move into adolescence, if left unprocessed, these pragmatic difficulties usually persist. They are frequently linked to problems in relationships, social withdrawal, and greater emotional vulnerability (Mandy et al., 2018). Overall, diagnosing SPCD during adolescence is uncommon, since its symptoms are often mistaken for personality traits, social struggles, or academic issues (Thurm et al., 2021). About gender, some studies report a higher prevalence in males, at approximately 2:1. However, as mentioned above, the evidence is limited because it is a recent disorder and could reflect diagnostic biases similar to those observed in ASD (Swineford et al., 2014). Thus, longitudinal research suggests that pragmatic difficulties may be more stable than other language components, persisting even when problems in other language components (phonological, semantic, or grammatical) have improved with age (Norbury, 2014).

3. Current Status: Topographical Approach of SPCD

Historically, traditional conceptualizations of mental disorders have relied on topographical classification (Deligny, 2023), and SPCD is not an exception. From this approach, SPCD is conceptualized as discrete clinical entities, assuming clear boundaries between normality and pathology (Widiger & Gore, 2014). SPCD is conceptualized from an eminently topographical perspective, based on observable criteria of symptoms and the presence of specific conceptual deficits (American Psychiatric Association [APA], 2013). This analysis, based on the form or topography of linguistic behavior, has been the focus of current diagnostic practice and also determines the operational limits of the disorder in classification systems. According to the DSM-5 (see American Psychiatric Association [APA], 2013 for detail), the SPCD is defined by (A) persistent difficulties in the social use of verbal and non-verbal communication as manifested by all of the following: (1) deficits in the use

of communication for social purposes (i.e., greetings) appropriately for the social context; (2) impairment of the ability adapt the communication to the context or the listener's needs (i.e., speaking different in the classroom and the playground); (3) difficulties following the conversations and storytelling rules (i.e., taking turns in conversations); and (4) difficulties to understand non implicit (i.e., making references) and non-literal or ambiguous language (i.e., metaphors). Additionally, (B) deficits result in functional limitations in effective social interaction (communication, participation, relationships, academic achievement, or occupational performance, individually or in combination), (C) the symptoms start in the early developmental period (although the deficits may not be fully manifest until social communication demands exceed limited capacities) and (D) they are not attributable to other medical or neurological condition, low abilities, autism spectrum disorder (ASD), intellectual developmental disorder, global developmental delay, or mental disorder.

The last criterion has enabled increased diagnostic reliability. This is particularly true since the third edition of the DSM, which incorporates more explicit, operational, and observable criteria (American Psychiatric Association [APA], 1980; Mayes & Horwitz, 2005). This change in methodology has enabled greater consistency in clinical assessment (Regier et al., 2013). This adoption of operational criteria also facilitated empirical research, as diagnoses became more replicable and comparable across different studies (Kendell & Jablensky, 2003). Likewise, the systematic accumulation of scientific knowledge about mental disorders has been made possible by the establishment of clear diagnostic definitions. This, in turn, has enabled the development of clinical trials, epidemiological studies, and research programs based on uniform criteria, which have become essential for evaluating the efficacy of psychological and pharmacological treatments under homogeneous parameters (Frances, 2013). Furthermore, SPCD responds to a long-standing need identified in the literature: a category to describe pragmatic difficulties that do not fit into the social indices established in ASD (Bishop, 2000; Norbury, 2014).

Nevertheless, this approach remains debated, and several limitations have been identified. First, the DSM-5's categorical approach constitutes an essentialist view of neurodevelopmental disorders as natural, fixed, and discrete entities, understood as something stable, internal, and separate from the contexts in which the individual's behavior develops (Widiger & Samuel, 2005; Widiger & Gore, 2014). Second, since its introduction in the DSM-5 (American Psychiatric Association [APA], 2013), SPCD's conceptual definition has been the subject of intense debate due to its overlap with other developmental disorders, especially ASD. It is considered that pragmatic difficulties frequently coexist in both. This makes differential identification difficult when describing behavioral patterns (Thurm et al., 2021). Third, its validity has been questioned because of its merely descriptive nature of communicative behaviors and offering little explanation of the functional mechanisms that cause and maintain pragmatic difficulties (Kapadia et al., 2020; Thyer, 2024).

While the diagnosis of SPCD is a useful tool for classification, its exclusively topographical nature may limit a deep understanding of the processes underlying pragmatic difficulties and, therefore, the possible selection of interventions tailored to the individual's behavioral functions. To address this limitation, alternative approaches acknowledge that pragmatic skills depend on underlying processes that cannot be accounted for in a purely descriptive classification (Matthews et al., 2018; Hayes et al., 2011), key processes for interaction with and within developmental contexts, such as social cognition, behavioral flexibility, emotional regulation, and relational learning.

4. Functional Analysis of SPCD

The functional approach focuses on studying the behavior in terms of function and contingencies rather than its form. Therefore, the principal objective is not to describe the

symptoms; it is to understand what purpose they have, what discriminative stimuli elicit them, and what consequences maintain them (Skinner, 1953). In contrast to the topographical model adopted by the DSM-5 (American Psychiatric Association [APA], 2013), this approach enables us to identify why behaviors occur, what function they serve, and what contextual variables maintain them (Echeburúa et al., 2014; Hayes et al., 1996; Thyer, 2024), operationalizing private events and behaviors to address maladaptive behaviors and their maintaining factors, without relying on diagnostic labels. This implies that behavior is not adaptive or maladaptive because of its form, but because of its function in a given context (Skinner, 1953). In other terms, problem behavior is not a stable trait but a short-term functional solution (Swerdlow et al., 2020), but maladaptive because of its long-term undesirable outcomes (Barlow et al., 2016; Hayes et al., 1996).

In this regard, when we talk about persistent attempts to suppress, control, or avoid unpleasant or aversive private events, even despite their high long-term cost, we use the term experiential avoidance (Hayes et al., 1996). From a functional perspective, they are maintained because they significantly reduce distress at the time, but they reduce the opportunity to acquire more flexible and effective behavior patterns (Chawla & Ostafin, 2007). Avoidance is one of the processes that reduces psychological flexibility, understood as an individual's ability to stay in touch with the present moment, even when facing intense difficulties, and to act in a way that is consistent with the things that are important to the individual, their values (Hayes et al., 2012).

From this perspective, experiential avoidance would be essential to understanding why many children or adolescents with SPCD develop avoidant and rigid patterns in social context. Working on psychological flexibility in these children or adolescents will allow individuals to learn to tolerate the distress inherent in social situations, thereby expanding their behavioral repertoire and facilitating more flexible responses that are better suited to what is important to them.

In this regard, the development and maintenance of behavior lie in the relationship between psychological flexibility—the individual's capacity to remain in contact with the present moment, even when facing intense difficulties, and to act consistently with what is personally meaningful, that is, their values (Hayes et al., 2012)—and experiential avoidance, defined as attempts to avoid or escape from negative internal experiences, which may increase suffering and restrict personal life (Hayes et al., 2006). A lack of psychological flexibility prevents individuals from expanding their behavioral repertoire, limiting the emergence of more adaptive responses that would allow them to face situations and manage distress. Conversely, individuals develop rigid response patterns that operate as experiential avoidance. Although these patterns may reduce distress in the short term, they are ineffective and potentially detrimental over the long term.

This change in perspective is fundamental when discussing SPCD, as language pragmatics cannot be viewed separately from social, cognitive, and motivational contingencies (Matthews et al., 2018; Norbury, 2014). Pragmatic difficulties are not conceived as static traits or intrinsic deficits, but as learned patterns of behavior that are functionally organized (Hayes et al., 2012; McHugh & Stewart, 2019). Crucially, this functional view relies on the Antecedent-Response-Consequence (A-R-C) model to highlight that various topographies can serve the same function. This means that understanding the “why” allows us to group multiple behaviors—such as avoiding eye contact or speaking softly—under a single functional purpose, like avoiding anxiety. Moreover, these processes always occur in dynamic interaction with the broader context, including the self-context, which shapes how relational frames and communicative behaviors are established and maintained (Hayes et al., 2001; Villatte et al., 2016).

Thus, SCPD is still considered a maladaptive behavioral pattern, but is assumed to be functional for the individual in a given context. For example, a child avoiding complex conversations may protect him/her from demanding social situations and the distress they generate. Still, in the long term, it reduces the opportunities for communicative learning available.

Therefore, from a contextual-functional perspective, pragmatic failures (i.e., not initiating a conversation, avoiding eye contact, or not responding to implicit cues) can be understood as behaviors that are governed by consequences and, thus, many children and adolescents with SCPD would develop social or communicative avoidance to reduce aversive consequences such as anxiety, fear of error, or personal distress. Then, it is not just a matter of training pragmatic skills, but also of working on the relationships that individuals have with their private events during social interactions (Hayes et al., 2011; Murrell & Wilson, 2002).

Consistent with this functional approach, some of the behaviors attributed to a pragmatic deficit, such as not understanding irony or social nuances, can be explained as a lack of reinforcing experiences in complex social contexts rather than as intrinsic deficits in the individual (Matthews et al., 2018). Children have fewer opportunities to learn when they grow up in highly structured and directive environments. For example, a child that gives literal answers to figurative expressions. It does this with the function of maintaining literal verbal control. This has often been reinforced in some school contexts that are highly structured. There is a reduction in the anxiety caused by ambiguity. However, in the long term, it reduces flexibility. Thus, promoting psychological flexibility would consist of helping individuals to remain in the presence of ambiguity, discriminating between the private events it produces and acting according to interpersonal values, which would favor a more flexible use of language.

Table 1 below illustrates examples of how observable behaviors are analyzed functionally.

Table 1. Examples of pragmatic behaviors in SPCD.

Functional Example	Topography (Observable Behavior)	Function (Why the Behavior Occurs)	Short-Term Consequence	Long-Term Consequence
1. Avoidance of Conversational Turn-Taking	The child does not take turns in conversation.	To avoid making social mistakes or being judged.	Reduces immediate social anxiety.	Limits the acquisition of pragmatic skills and decreases social participation.
2. Avoidance of Figurative Language	The child responds literally to metaphors, jokes, or irony.	Does not respond to metaphors, jokes, or irony.	Prevents momentary confusion or embarrassment.	Reinforces rigid language use and reduces flexibility in social communication.
3. Restricted Initiation of Interaction	The child rarely initiates conversations.	To avoid potential rejection or unpredictable social outcomes.	Minimizes exposure to stressful interactions.	Reduces the capability for initiating and maintaining conversations.
4. Over-Reliance on Scripted Language	The child uses rehearsed phrases instead of generating spontaneous responses.	To gain predictability and control in interactions.	Increases perceived safety during communication.	Limits the generalization of language skills and impedes the development of adaptive discourse.

Table 1. Cont.

Functional Example	Topography (Observable Behavior)	Function (Why the Behavior Occurs)	Short-Term Consequence	Long-Term Consequence
5. Withdrawal from Group Activities	The child stays silent or physically distant during group tasks.	To escape complex social demands or multi-party communication.	Decreases immediate cognitive and emotional load.	Maintains avoidance patterns and restricts social learning opportunities.
6. Disruption or Topic Shifting	The child changes the topic abruptly or interrupts.	To escape difficult or uncomfortable social topics.	Removes the child from an aversive conversational moment.	Interferes with learning conversational coherence and reduces peer acceptance.
7. Excessive Question-Asking for Reassurance	The child repeatedly asks for clarification in social contexts.	To reduce uncertainty and obtain reassurance.	Temporarily alleviates anxiety.	Increases dependence on external cues and limits the development of inferential pragmatics.

Note. SPCD = Social (Pragmatic) Communication Disorder. The table illustrates examples of how observable behaviors can be analyzed functionally.

In summary, having poor social skills leads to distress (embarrassment, rejection, failure, frustration, anxiety, etc.) and, therefore, in an attempt to avoid this distress, leads the individual to reduce social exposure and interactions (not greeting others, sharing less, difficulties with metaphorical or ironic language, etc.), and consequently to use them less. All of this interferes with social relationships, academic performance, and participation in social situations (American Psychiatric Association [APA], 2013; Martínez Alonso et al., 2015; Norbury, 2005; Saul et al., 2022; Timler & Moss, 2021).

Despite the significant progression from the topographical approach, the mere functional analysis is only that, an analysis. At this point, it offers a conceptual framework, but it remains limited in its ability to guide an intervention. To face this, the Relational Frame Theory arises from the functional analysis of behavior.

5. Relational Frame Theory as a Basis for Functional Analysis of Behavior

The Relational Frame Theory (RFT) (Hayes et al., 2001) is a development within the applied functional analysis approach, specifically concerning language and cognition. Thus, it is a behavioral theory of language and cognition that conceptualizes verbal behavior as operant relational learning, enabling process-based intervention (Barnes-Holmes et al., 2018).

RFT emphasizes that pragmatic difficulties should not be understood as linguistic deficits, but as limitations in relational flexibility. Consequently, the intervention should be focused on training relational flexibility by training the ability to derive multiple relationships. To do that, different relational frames can be trained, such as the coordination, opposition, distinction, comparative, temporal, spatial, causal, hierarchy, and deictic frameworks (Luciano et al., 2009; Hughes & Barnes-Holmes, 2016).

The coordination framework ('A is the same as B') allows arbitrary equivalence relationships to be established between stimuli, helping to understand linguistic labels, categories, synonyms, and social references. Limited development of this framework can affect the interpretation of non-literal expressions and the flexible categorization of discourse (Barnes-Holmes et al., 2004). The distinction framework ('A is different from B') facilitates

the discrimination of nuances in communicative situations, roles, or intentions, helping to understand pragmatic contrasts or subtleties (McHugh & Stewart, 2012; Hughes & Barnes-Holmes, 2016). The comparative ('A is more/less than B') evaluates quantities, intensities, or relative internal states, which will influence the emotional modulation of social interaction and its interpretation (Fryling et al., 2020; Dymond & Roche, 2013). The temporal frame ('A is before/after B') and spatial frame ('A is inside/outside/next/below/among others B') help to situate events and narratives in order to achieve discursive coherence (Barnes-Holmes et al., 2004). The causal frame ('if A, then B') helps to understand pragmatic inferences and interpret social intentions and consequences. The limitation of this framework affects adaptation in changing contexts (Dymond & Roche, 2013). The hierarchy framework ('X belongs to Y') categorically organizes knowledge and the use of contextual rules. Understanding conversations, turn-taking, and implicit social hierarchies (Hayes et al., 2001). The deictic framework (I–you, here–there, and now–later) forms the foundation for perspective-taking and, with it, the understanding of communicative interactions (XX). Finally, the analogy framework ('A is to B as C is to D') allows for the relating of distinct relational networks, which is fundamental for interpreting metaphors, irony, and sarcasm. For instance, understanding that a "cold reception" relates to social distance in the same way low temperature relates to physical sensation enables the child to decode complex figurative language (Stewart & Barnes-Holmes, 2001; Norbury, 2005).

Various experimental studies show that explicit training in relational frameworks increases sensitivity to context and the ability to adjust language to the demands of the context (Foody et al., 2015; Kirsten & Stewart, 2022; Törneke, 2010), changing individuals' linguistic and social functioning and competence: training in the coordination frame improves semantic comprehension and social categorization (Dymond & Roche, 2013); training in opposition leads to greater understanding of humor, irony, and ambiguity (Foody et al., 2015); training in distinction helps discriminating more accurately between events and internal states, favoring that interpretations are less literal and more context sensitive (Villatte et al., 2016); training in comparison helps improve social reasoning and communicative adjustment (Colbert et al., 2018); training in temporal and spatial frames produces advances in narrative coherence and conversational follow-up (Ferrari et al., 2022); training in causal helps to attribute causality to events based on different characteristics (Hayes et al., 2001); training in hierarchy helps to abstract categories, subcategories and inclusion relationships (McHugh & Stewart, 2012), and abstract relationships from a context (Hayes et al., 2001); and finally, training in deictic frames improves theory of mind, perspective-taking, and pragmatic skills (Villatte et al., 2016).

Somehow, these results indicate that training in different relational frames reduces the characteristic topography of SPCD, that is, the persistent difficulties in the social use of verbal and non-verbal communication. From RFT, children and adolescents diagnosed with SPCD have a limited repertoire of these frameworks, which leads to literal interpretations of language, failures to detect the communicative intentions implicit in the context, and difficulties in adjusting communication to the demands of the environment (Andrés-Roqueta & Katsos, 2020; Hayes et al., 2001; Hughes & Barnes-Holmes, 2016; Loucas et al., 2022). Thus, it is sensible to think that RFT is an appropriate approach to intervene on SPCD by modifying the verbal processes that underpin social communication (Villatte et al., 2016) and increasing individuals' social competence.

This training begins with the most basic relational frameworks (equivalence, distinction, and opposition) and progresses to more complex ones (hierarchy, causality, etc.). The procedure used is Multiple Exemplar Training (MET) (Hayes et al., 2001), which is a central method for teaching and strengthening arbitrarily applicable relational responding. It is a training procedure involving multiple, systematic trials. The aim is to increase flexibil-

ity and generalization. In this way, it is possible for the individual to acquire a broader relational pattern.

Psychological flexibility is thus defined as responding to one's own behavior framed within a hierarchy with the deictic I. In other words, it is the ability to discriminate and react to our own thoughts, feelings, and responses and thus take action in the service of the things that matter (Törneke et al., 2016). Recent research indicates that difficulties in these relational frames may be associated with impairments in understanding others' mental states and in adapting behavior to complex social situations (Villatte et al., 2016).

Some authors propose that the analogy framework represents an advanced form of arbitrary relational processes. Within two or more relational networks, comparisons are established on the basis of functional similarities rather than the physical properties of the stimuli (Stewart & Barnes-Holmes, 2004). This type of framing makes it possible to identify parallels between social situations, interpret metaphors, understand insinuations, and derive complex meanings from context. Difficulties in understanding social analogies may explain the problems encountered in SPCD in interpreting metaphors, intervening in other people's interactions, or understanding the pragmatic nuances of those interactions that require comparisons between events, affective states, or conversational roles (Norbury, 2014). Thus, a deficit in this area can contribute to communicative rigidity and difficulty generalizing social rules to different contexts, which is necessary in children with a diagnosis of SPCD. Programs that are intended to train relational comparison skills in an explicit way can help to: establish relationships of equivalence between different social situations, identify communicative patterns and understand metaphors. This is done by establishing relationships such as 'A is to A as C is to D' (Barnes-Holmes et al., 2017). It can help improve verbal flexibility and sensitivity to context. This could facilitate the interpretation of communicative situations, understanding humor, and adapting discourse to conversational contexts. All of the above are necessary for effective social participation.

Another key component is the reduction in experiential avoidance, because the transformation of functions explains that certain contexts acquire aversive properties that cause the individual to stop exposing themselves to social situations (Hayes et al., 1996). Therefore, RFT-based interventions integrated into models such as Acceptance and Commitment Therapy are effective in reducing avoidance by promoting social participation and communicative adaptation (Hayes et al., 2001; Hofmann & Hayes, 2019).

If applied to SPCD, it allows pragmatic difficulties to be conceptualized as flexible and modifiable relational patterns rather than static traits. Therefore, working on relational flexibility and deictic frames will directly affect social interaction, understanding of discourse in changing environments, and academic performance. This will offer a path to individually adapted, effective, and contextualized interventions (Adams, 2002; Barnes-Holmes et al., 2004; Hendriks et al., 2016; McHugh & Stewart, 2012).

In light of these considerations, RFT provides a solid functional framework for understanding the linguistic processes involved in social communication. Taking into account derived relationships, sensitivity to context, and the transformation of functions allows us to conceptualize the pragmatic difficulties of SPCD not as static entities. In doing so, relational acquired patterns can be modified through process-based interventions.

6. Implications for Intervention and Research

This avoidance as a transdiagnostic process (Boulanger et al., 2010) may explain why communication difficulties persist even when there are no structural deficits in language. For example, a child who avoids participating in conversations may do so not because of linguistic inability, but to reduce the possibility of being evaluated by others, which

provides immediate relief from distress in the short term but reduces the likelihood of acquiring pragmatic skills in the long term.

To this end, Acceptance and Commitment Therapy (ACT) provides a framework for intervention consistent with SPCD because the objective is to modify communicative behavior functions, thus promoting increased behavioral flexibility and reducing avoidance patterns. ACT attempts to alter the processes of cognitive fusion, verbal rigidity, and avoidance. These processes may be affecting the way people with SPCD interpret, respond to, and maintain social interactions (Hayes et al., 2013; Ong et al., 2020). ACT tries to provide people with the ability to participate in communicative situations even when they are unpleasant without having to automatically resort to avoidance, thus allowing them to increase their exposure to social situations and thereby gradually expand their pragmatic repertoire. All this is achieved through strategies such as cognitive defusion, training in discrimination and work on interpersonal values.

Through strategies such as cognitive defusion, discrimination training, and interpersonal values work, ACT seeks to enable individuals to engage in communicative situations even if they are unpleasant, without automatically resorting to avoidance, allowing them to increase their exposure to social situations and thus gradually expand their pragmatic repertoire.

Furthermore, as we have seen above, the functional approach facilitates interventions tailored to the specific functions of each of the communication patterns. Thus, for example, if the function of the pragmatic response is to avoid social uncertainty, the intervention can focus on increasing tolerance for ambiguity. If, on the other hand, the function is to reduce social anxiety, value-oriented graded exposures can be trained. If the function is to maintain predictive control, intervention can focus on verbal rigidity and the flexibility of relational patterns. Taking everything into consideration, ACT focuses on the functional understanding of SPCD by seeking to promote behavioral patterns that are more flexible, socially effective, and consistent with each individual's interpersonal goals.

On the other hand, the implications for research are significant because the functional approach allows for the identification of transdiagnostic processes involved in pragmatic communication, which makes it possible to develop more precise and elaborate procedural measures of explanatory models that overcome the limitations of purely descriptive diagnoses (Hayes et al., 2013; Sturme et al., 2020). Thus, research lines focused on variables such as psychological flexibility, emotional regulation, and relational repertoires may be influencing pragmatic competence. This encourages experimental and longitudinal designs that allow us to understand the functional contribution of language and cognition processes in the development of SPCD (Villatte et al., 2016).

7. Conclusions

The categorical approaches such as DSM have been useful both in standardizing language and criteria and in providing a framework for research, thereby improving communication among psychologists. However, it prevents us from seeing the person in all their complexity due to its limited view of the individual. In contrast, functional contextualism offers an understanding of SPCD that goes beyond the diagnostic label and allows us to see the person in all their complexity. Rather than viewing communication difficulties as isolated deficits in the individual, this perspective allows us to understand them as patterns of behavior regulated by contingencies in their history and context, and maintained by experiential avoidance strategies.

This shift in perspective enables us to address maladaptive patterns by training the specific skills required by each individual. These skills can range from developing a tolerance for discomfort in order to broaden one's repertoire of social interactions to acquiring new communication skills such as the use of irony or metaphor, or flexibility,

or enhancing one's capacity for empathy through perspective-taking. This will help the individual to engage in interactions that are more adaptive within their context.

RFT provides a theoretical and methodological framework for analyzing the processes involved in communication, specifically flexibility, context sensitivity, and perspective-taking. In this regard, the principle of function transformation is particularly relevant: through relational responses, environmental stimuli acquire derived functions that can be modified through training within relational frameworks. It transforms the way in which the individual responds functionally to social situations, thereby facilitating communication patterns that are more flexible and adaptive. Therefore, within the SPCD, TMR helps to guide specific interventions aimed at transforming both verbal and social behavior.

In conclusion, incorporating these principles into intervention models such as ACT, as in this case, enables practitioners to work simultaneously on reducing experiential avoidance, enhancing psychological flexibility, and gradually exposing clients to communicative situations. This approach allows us to clarify the mechanisms underlying SPCD and guide specific interventions aimed at transforming both verbal and social behavior. Therefore, the functional and relational model guided by RFT allows for a broader understanding of SPCD and lays the foundation for individualized and coherent interventions aligned with the complexity of human behavior and contemporary process-based psychology, thereby advancing towards a more precise understanding and more specific, effective, and specialized interventions for the treatment of social communication difficulties.

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Abbreviations

The following abbreviations are used in this manuscript:

SPCD	Social Communication Disorder
RFT	Relational Frame Theory
DLD	Developmental Language Disorder
ASD	Autism Spectrum Disorder
ACT	Acceptance and Commitment Therapy

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