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Viewpoint

Using the Natural Language Acquisition Protocol to Support Gestalt Language Development

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ABSTRACT

Purpose: The purpose of this article is to describe gestalt language development, a natural style of language acquisition, and describe how the Natural Language Acquisition (NLA) protocol can be used to support autistic and nonautistic individuals with language development. NLA builds on previous research findings and is used to detail and quantify the stages of gestalt language development.
Method: This article is based on a review of the literature that describes echolalia and the language acquisition process of individuals who develop language in a gestalt style.
Results: For years, autistic people have been sharing about their lived experiences with acquiring language through "scripts" and "echolalia." Collaborating with families and establishing a connection based on trust between the clinician and the child are essential components of supporting gestalt language development and are at the core of NLA.
Conclusions: Clinicians can use the strategies outlined in NLA to support language development in gestalt language processors. In the interest of not excluding autistic people or underrepresented groups, it is necessary to change the traditional sequence of research to include marginalized communities such as multilingual and international populations in future studies regarding gestalt language development.

Echolalia has had a long and confusing history. Echolalia has been defined as the repetition of expressive language one hears, either immediately (*immediate echolalia*) or delayed by minutes or years (*delayed echolalia*; Stiegler, 2015). Often considered a "characteristic" of autism and pathology to be extinguished, echolalia was long thought to have minimal communicative value (Prizant & Duchan, 1981; Prizant & Rydell, 1984). However, several researchers identified the communicative functions of both immediate and delayed echolalia in autism (Prizant & Rydell, 1984; Stiegler, 2015). Prizant (1983) concluded that echolalia could be "better understood as manifestations of gestalt processing" (p. 301). Most importantly, delayed echolalia is an integral part of gestalt language acquisition (Blanc, 2012; Prizant, 1983). The current authors recognize gestalt language development as a distinct and natural style of developing language (Blanc, 2012; Peters, 1977, 1983; Prizant, 1982, 1983).

This article will describe how autistic language development often follows the gestalt style of language acquisition and will distinguish gestalt development from its more familiar counterpart, analytic development. The

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Publisher Note: This article is part of the Forum: Neurodiversity. ***Disclosure:*** *Marge Blanc is the author of the book,* Natural Language Acquisition on the Autism Spectrum: The Journey From Echolalia to Self-Generated Language *(2012), which was published by the nonprofit corporation she directs, Communication Development Center (CDC). CDC financed the publication of the book and receives royalties from its sale through Northern Speech Services. Marge's book contains the Natural Language Acquisition (NLA) protocol largely discussed in this article. Paulina Elias and Amanda Blackwell offer courses in Spanish and English about the NLA framework through Natural Communication, LLC. Both Paulina and Amanda receive royalties from the sale of their courses. Paulina is also a consultant for the CDC and receives compensation for her translation and content-creation work.*

authors will then detail the Natural Language Acquisition (NLA) protocol that has been used to describe and quantify gestalt language acquisition (Blanc, 2012) and outline the main differences between these styles of language processing. Later in the article, the authors' voices will be joined by those of autistic adults who have recounted their own lived experiences with language acquisition and offer their insights to contribute and extend the discussion (Dorsey, personal conversation, June 16, 2023; Sykes, 2022). Finally, the authors will shed light on a set of relevant factors that they hope will be the subject of future research.

Language Acquisition

Analytic Language Development

Historically, child language has been described as developing in a single, predictable, and linear progression measured by a variety of factors including the number of different words (NDWs) that an individual understands and produces at each stage of the acquisition process (i.e., vocabulary development). Measures such as the average length of an individual's utterances (mean length of utterance [MLU]) and the order of acquisition of grammatical elements have also served as indicators of language development (Brown & Bellugi, 1964). The linguistic measure of MLU is the basis for the type of longitudinal grammar development known as Brown's Stages and has been widely regarded as a point of reference for "typical" language development (Blount, 1975). In addition to these common measures, the total number of words (TNWs) and the NDWs have been used to measure syntactic development within this framework (Miller, 1981). Together, TNWs and NDWs have been used in language sample analysis to calculate the type–token ratio (TTR), which refers to the ratio of different words to total words in a language sample (e.g., NDWs divided by TNWs is equal to TTR; Templin, 1957). More recently, these commonly used measures have been found to provide limited practicality, especially when it comes to intervention (Owens et al., 2018). To better measure grammatical development, Owens et al. (2018) discussed the importance of taking a broader approach that does not revolve around a single benchmark such as MLU. Nonetheless, even when approaching language sampling and analysis more broadly, quantitative measures such as MLU, TNW, NDW, and TTR do not seem to describe the language acquisition process for all children.

Gestalt Language Development

Peters' (1977) study offered a different view of language acquisition. MLU did not accurately reflect the language development of a participant in Peters' study, as this individual's utterances were more consistent with the "chunks" of language that had been previously described in the literature (Bloom, 1970; Ferguson & Farwell, 1975; Nelson, 1973). Based on these findings, Peters (1983) collected and analyzed additional language sample data, which led her to define a second, distinct language acquisition style. She called this style "gestalt," acknowledging its meaning from the concept of "an organized whole that is perceived as more than the sum of its parts" (Oxford English Dictionary, n.d.). Stated plainly, gestalt language processing and gestalt language development are two terms that both refer to a style of language acquisition that begins with larger chunks of language, as opposed to the traditional style of language acquisition (known as "analytic language processing" [ALP]) that begins with single words. Although ALP is defined by the systematic growth that begins with single words and progresses to multiword utterances (Peters, 1983), gestalt language processing is defined by the evolution of more "rigid" language chunks into flexible multiword utterances.

Recognizing the underlying similarities between the two processes of language acquisition, Peters (1983) originated the term unit of meaning to refer to the commonality between the first stage of analytic language development and the first stage of gestalt language development. In both processes, children begin with single meaningful "units." The first unit in the analytic process is a single word, and the first unit in the gestalt process is a "language gestalt." At the two-unit stage of language development in the analytic process, two single words are combined, while in the gestalt process, whole language gestalts are segmented or "mitigated" into smaller parts. Over time, both language acquisition styles move toward flexible, self-generated grammar in the later stages (Peters, 1983; Prizant, 1983).

Language gestalts, the units of meaning at the outset of gestalt language development, can be as short as a single word or as long as an entire song or movie. Peters (1977) recorded her study participants using whole language gestalts such as, "What's that?" "Uh-oh!" and "Silly, isn't it?" She observed that young children who are at the single-unit stage developmentally seem to perceive each unit as an unanalyzed whole, that is, they are not aware that a language gestalt could be made up of individual words that are combined. As can be observed, there are important similarities and differences between both styles of language acquisition, and it is up to us as clinicians to recognize these and use them to better support each child's language development.

Gestalt Processing in Autism

Prizant (1982, 1983) studied the language development of autistic individuals and described the autistic language acquisition process as an "extreme" gestalt style

that is part of episodic memory abilities associated with gestalt thinking. This kind of episodic memory, which Prizant called "situational gestalts," refers to the ability of an autistic individual to recall every aspect of a particular situation including sights, sounds, smells, sensations, feelings, and so forth (Prizant, 1983). The specific elements of the situation are part of the whole gestalt, in the sense that they cannot be separated from one another in the memory of the autistic person. For example, when an autistic person hears someone say, "He shoots...he scores!" the person might immediately recall a time 3 years before when they were in the front center row of the high school championship basketball game. They might have jumped up and down with their hands in the air while shouting with joy and recalling the sound of the crowd cheering and the smell of the popcorn and peanuts. Even years later when recalled by the same autistic individual, this situational gestalt is attached to a feeling of intense joy along with a language gestalt and other details from the original moment.

Acknowledging the challenges that can accompany what he called extreme gestalt processing (retaining whole gestalts for longer than neurotypical gestalt processors), Prizant (1983) found that autistic children followed the same linguistic trajectory, as neurotypical children in that they also achieved self-generated grammar. He defined four stages of gestalt language acquisition, noting that the process begins with using whole language gestalts at Stage 1, then segmenting gestalts (mitigation) at Stage 2, moving on to isolating single words at Stage 3, and finally developing self-generated grammar at Stage 4 (Prizant, 1983).

Following Prizant's recommendation of a large-scale longitudinal study of the gestalt process, Blanc (2012) analyzed 15 years of clinical data collected from the language samples of dozens of autistic and neurotypical individuals who used a gestalt style of language development. Analysis of that clinical evidence further verified Prizant's four stages of gestalt language acquisition and identified two additional stages. Stages 5 and 6 refer to grammar development in gestalt language acquisition and were found to follow the language progression already recognized in analytic language development (Lee, 1966; Lee & Canter, 1971). The six stages of the natural gestalt language acquisition process were detailed and quantified in a single protocol known as NLA (Blanc, 2012).

The Stages of Gestalt Language Development

The NLA protocol is a description of the six stages of gestalt language development, a quantification of those stages, and a documentation of the natural supports that allow students to progress through the stages (Blanc, 2012). The six stages are described below. In addition, they are listed in Table 1 and accompanied by two examples of the possible evolution of an utterance from Stage 1 to Stage 6 of NLA, along with strategies to support gestalt language processors (GLPs) at each stage.

Although the strategies used to support GLPs differ from one stage to the next, a foundation of trust or "connection" between the speech-language pathologist (SLP) and the GLP is paramount in each of the six stages of the NLA protocol. This connection is the key for creating a safe space in which meaningful interactions and authentic communication can happen. For some children, connection might mean spending time in silence. If a child is captivated by a piece of string, the SLP could play silently alongside the child with another piece of string. For other children, connection might mean imitation. If a child is playfully repeating a stream of music or sound with a particular intonational contour, the SLP could echo the same vocal pattern. For still others, connection might mean the GLP and SLP jumping up and down on a trampoline together while they repeat a line from a movie over and over. Once an SLP has established this connection, the natural gestalt language acquisition process can begin.

Stage 1 of NLA is the processing of language gestalts, heard in one situation and then used after a delay to communicate in another situation. For example, a child may be at a soccer game with their family when they hear the announcer shout, "Messisgottheballandrunsacrosslookathimgohesgettingreadyandhescoresgoaaal" ("Messi's got the ball and runs across...Look at him go! He's getting ready, and he scores! Goaaal!"). In this example, the child is processing the entire situational gestalt including the soundtrack or "string" of language that is acquired as a language gestalt. At Stage 2, gestalts are then segmented or mitigated, and the segments can be mixed with other segments to form new utterances (e.g., "Messisgottheball. . .andgoaaal!"). The language from Stage 2 is further mitigated into single words at Stage 3 (e.g., "Messi" and "bus"), and words are combined in the same ways that analytic processors create two-word phrases (e.g., "Messi + ball" and "bus + school"). Stage 3 words are "referential"—meaning that they refer directly to a person, entity, quality, or location. At Stage 4, single words are combined grammatically to create simple phrases and sentences such as, "I saw Messi." Stage 4 includes basic grammar, and Stage 5 includes more advanced grammar, which then evolves into a complete grammar system by the end of Stage 6.

The order of acquisition of grammar at Stages 4–6 follows the eight levels of self-generated grammar development described by the work of Lee and Canter (1971) in the Developmental Sentence Scoring (DSS). More specifically, grammar at Stage 4 corresponds to Levels 1–3 of

Table 1. Stages of the Natural Language Acquisition (NLA) protocol with examples.

Stage	Description	Example 1	Example 2	Supports
1	Language gestalts (wholes, scripts, songs, and language of episodes)	Messisgottheballandruns acrosslookathimgohesge ttingreadyandhescoresgoaaal!	daweeodabuhowouahw ouwouahwouwouahwo uddaweeodabuhowouahwou..	-Follow the child's lead in play; focus on establishing trust and connection with the child by: -Acknowledge all communication modes and attempts -Try to determine what the child might be communicating (nonliteral, contextual meaning) -Model new language gestalts that provide the soundtrack for new experiences
2	Mitigations (mitigated gestalts and partial scripts) Mix and match combinations of partial scripts	Messisgottheball. . .andgoaaal!	daweesondabusgoround andround. . .allthewayto school	-Listen and model options for mitigations that can be used in other contexts (e.g., "Let's play + ball!" or "Let's go + school?") -Provide and seek out experiences as opportunities to model mitigations with multiple communication partners
3	Isolated single words Two-word combinations of referential single words	Messi Messi + ball ball + Messi	bus bus + school school + bus	-Acknowledge single words the child isolates, and model a variety of two-word combinations, without regard for grammar or word order (e.g., noun + attribute, noun + location, noun + noun)
4	Original phrases and beginning sentences	I saw Messi.	The bus is coming.	-Support and model short phrases that express semantic relationships (e.g., noun + verb + location; verb + adjective) using the presentence grammar of DST and the sentence grammar of DSS Levels 1 through 3 as guides
5	Original sentences with more complex grammar	Did you see Messi's amazing goal last night?	The bus picked us up early this morning, so we are already here!	-Introduce new grammar targets using DSS Levels 4 through 6 in meaningful conversation and narratives
6	Original sentences using a complete grammar system	If you kick the ball in the right place, you will see it fly across the field and into the net.	How come the bus is late today, since it was so early yesterday?	-Introduce new grammar using DSS Levels 7 and 8 in meaningful conversation and narratives

Note. Expanded with permission from Blanc (2012). DST = Developmental Sentence Types. DSS = Developmental Sentence Scoring.

the DSS, while Stages 5 and 6 correspond to Levels 4–6 and 7–8 of the DSS, respectively. As can be observed in Table 1, grammar at Stage 5 includes the acquisition of "obligatory *did*" within a question such as, "Did you see Messi's amazing goal last night?" while grammar at Stage 6 includes the acquisition of "*how come"* and more conjoining words, such as in, "How come the bus is late today since it was so early yesterday?" among others.

Lived Experiences of GLPs

Prizant (1983) described the use of situational gestalts as "gestalt cognitive processing"—a form of thinking that includes a whole experience or situation—and suggested that, for many GLPs, gestalt language processing is an intrinsic part of the emotional experience in which the language was first used. This distinct experience with language may make it challenging for some communication partners to understand the perspective of a GLPs, while others may find it intuitive. Sykes, an autistic SLP, highlighted the ease with which they understand their autistic clients, because they have a common culture and communication style. They noted, "I find it easy to intuit feelings, emotions, and contexts through the style of communication utilized by autistic individuals. Cultural context of being autistic and serving autists[1] with our shared linguistic and language abilities facilitates deeper understanding. This

[1] *Autist* can also be used to refer to an autistic person.

helps to bridge the gap between autistic and nonautistic communication, facilitate the repair of communication breakdowns, and help families and support systems to better understand language differences and the autistic language variety, which are often misunderstood and labeled as deficient or ineffective" (J. Sykes, personal communication, June 16, 2023). Sykes's comment helps to highlight the importance of supporting families to understand that one communication style is not better than another, and that it is necessary to learn all they can about the GLP's experiences with language.

Such awareness has also helped inform other professionals about the ways in which children might be reliving emotional experiences (situational gestalts) with their language gestalts. This could happen both communicatively and noncommunicatively (e.g., as a "stim") for self-regulation purposes. One comment from an occupational therapist acknowledges that the language gestalts that her clients use may not always be directed to her nor meant for communicative purposes. "I know that sometimes scripts are 'for me' and sometimes scripts 'aren't for me' — to borrow @Rachel Dorsey's language. What are some clues right now? Will I be intruding into this child's state of 'flow' working on this project if I talk to them?" (The Occuplaytional Therapist, personal communication, June 28, 2023). This professional emphasizes our responsibility to carefully consider whether it is appropriate to respond or model language when we hear autistic GLPs use language gestalts.

The lived experiences of many autistic adults, particularly SLPs who are autistic and identify as GLPs, have further validated Blanc's (2012) findings about the gestalt language development process. They have recounted their experiences with gestalt processing as children and regularly use their insights in their clinical practices. For example, Rachel Dorsey explained her ability to help her clients mitigate early gestalts. "As a speech-language pathologist who is primarily a gestalt processor, I can easily understand the emotional connection between two seemingly unrelated things and use that emotional connection to help clients break down their gestalts" (R. Dorsey, personal communication, June 16, 2023). For example, if a child says, "How very dare you!" when they are looking for something, the SLP might understand that the child is experiencing frustration and using a gestalt from *Bluey* (an Australian animated television series for children based on the family of a Blue Heeler puppy; Aspinwall et al., 2018). The SLP might reply with a mitigation of the original gestalt such as, "How very + lost it is." When the SLP takes the time to understand the entirety of the emotional experience in which a language gestalt was first heard without imposing their own expectations or demands on the child, a connection built on trust can be formed.

Adult GLPs have further informed SLPs about the self-chosen scripts or chunks that they prefer for both communicating and self-regulation. Outside of language development, such scripts are often seen as preferred language and, sometimes, the lines between true gestalt scripts in language acquisition and chosen scripts (nongestalts) in adult language use become blurred. Peters' (1977) definition of a language *gestalt* as an "unanalyzed whole" reminds us that the term gestalt belongs to language acquisition, but scripting can apply to both language acquisition and self-chosen language chunks. One adult GLP explained their desire to find a word for the newly minted language chunks they prefer. Realizing that they do not use true gestalts like they did as a child, they explained that the terms *script* or *phrase* do not accurately reflect their experience. They would prefer something else and are considering *neo-gestalt,* meaning "new" gestalt (A. Wohlgemuth, personal communication, June 29, 2023). Our collective understanding and use of terms related to gestalt language development are evolving as more research is being done and a more diverse group of GLPs are sharing their lived experiences. There is a crucial need to continue to rely on autistic people to better understand the strong relationship between their lived experiences and the language that accompanies them. Only then will it be possible for us to provide appropriate support and ensure that we are truly honoring each person's unique communication journey.

Underrepresented Groups of GLPs in the Research

The gestalt language development process in specific groups of people may be impacted by several factors, including: (a) the age that a person begins the gestalt language development process, (b) the kinds of supports that are available to "young adult" GLPs, (c) the types of communication modalities used (e.g., augmentative and alternative communication [AAC]), (d) co-occurring diagnoses, and (e) cultural and/or linguistic background. Historically, the usual progression from monolingual English–speaking, mainstream, middle-class, and Western populations to those of multilingual individuals from diverse demographic and socioeconomic backgrounds has resulted in marginalized communities being underrepresented in traditional research (Henrich et al., 2010). Therefore, the multilingual and multinational authors of this article have a particular interest in exploring the relationship between multilingualism and gestalt language processing. Similarly, the autistic community has largely been excluded from participating in the research process, which has led to the absence of autistic representation in the academic literature (Bottema-Beutel et al., 2021). In the interest of challenging ableist and discriminatory research practices, the current authors have chosen to highlight the

intersection of multilingualism, gestalt language processing, and autism as one of the most pressing areas of interest for future research.

Recommendations for Supporting GLPs

All interactions with GLPs are potential situational gestalts, so the language within those gestalts has the potential to "stick" in the mind of the GLP along with the environmental details of the situation. Clinical evidence (Blanc, 2012) coupled with the lived experiences of autistic individuals provide a current working framework for effectively partnering with GLPs. In the words of Sykes, it is important to "reflect on a moment in your life where you felt misunderstood. Think about it, sit with it, and reflect upon the feelings associated with being misunderstood." Only then can we all "be more attuned to each other" (Sykes, 2022). To that end, the following is an inexhaustive list of potential strategies that promote such attunement:

Begin the language assessment process with collaboration between families and professionals. This partnership involves sharing resources about the analytic and gestalt styles of language processing and creates a safe space in which all parties can freely share anecdotes, ask questions, and form a more robust picture of the child. A strong foundation of teamwork helps create a genuine connection with the child that allows the language development process to unfold naturally. Collaboration with families is necessary for providing valuable context and insight into a child's commonly used language gestalts. A seemingly random phrase such as, "Here comes the doctor!" might be misunderstood or even ignored by a clinician until the family clarifies that this is the language gestalt that their child uses to express when they are in physical pain.

In addition, taking the time to share relevant information and resources with a child's family from the outset will contribute to the family's empowerment and ability to continue supporting the child's language development. For example, during an early meeting with a family, a clinician might create and share a collaborative digital folder to which the family can upload audio and video samples of their child in a variety of contexts (e.g., home, school, church, and park). The multimedia files will provide parents with the opportunity to share different qualities of their child (e.g., their current ways of communicating, preferred activities, and preference for or ability to use different languages) and learn ways to support their language development. Additionally, the clinician will get an idea of the child's way of interacting and a better understanding of how best to support the child.

Place connection at the forefront of all communicative interactions, because all experiences are potential situational gestalts for a GLP. Although connection will look different from person to person, it is essential that everyone who is part of a child's communication journey takes the time to find out what authentic connection looks like for that child. Clinicians should consider different ways of establishing trust and connection through silence, imitation, movement, preferred activities, and so forth. In some cases, connection may be established instantly, while in others, connection may take a long time to develop. Regardless of how long it takes to achieve a meaningful connection built on mutual trust between the GLP and the SLP, it is crucial that we never take it for granted and that we always prioritize preserving it above all else.

Recognize the intrinsic link between a GLP's language and their experiences. This means that we honor the individual's already acquired language as part of their meaningful experiences (situational gestalts) before considering how we might offer new language models. We need to be aware that cultural and linguistic factors will influence the way in which an individual relates to their self-chosen language. At a practical level, a child's team is highly encouraged to incorporate language from home cultures in order to make experiences more authentic, relevant, and familiar. Part of honoring a child's "true and most authentic self" means encouraging them to communicate using the language(s) with which they feel most comfortable expressing themselves. This is true even when the communication partner does not speak that language or share their culture. Acknowledgment can take multiple forms, and understanding can be an evolving process. Partnership with families and community members to provide broader linguistic and cultural acknowledgement is an ongoing endeavor that "takes a village."

Honor preferred modes of communication (AAC, signs, gestures, sounds, media selections, etc.). Using a particular type of communication modality should never be an obligation for any child. Communication partners should be willing to adapt and respond to the preferred communication methods of the GLP, even when this means enlisting the help and support of others. More specifically, modifications to the layout, voice output, vocabulary, and language structure of an AAC device may be necessary to better support gestalt language development. For example, a child who enjoys hearing their father repeat various phrases may benefit from the father recording his own voice saying those phrases and saving them in the child's AAC device. A teenager who prefers to have a British voice output on their device should be permitted to use that voice. A person who is passionate about a particular character from a movie should have the opportunity to say multiple phrases that relate to that character. Further research is necessary in this specific area. In the meantime, we are not expected

to "know it all," but we must be willing to broaden our partnerships, so our GLPs are as well supported as any other children.

Support for underrepresented groups of GLPs will require research into the specific needs of each group. A particular emphasis on improving the ways in which we support minimally and nonspeaking GLPs using different communication modalities should be a priority. The need to amass a large number of language samples from GLPs in different contexts and countries is evident and would allow for the type of analyses that are necessary to better understand the language development processes in these individuals. Autistic and multicultural researchers will help all of us approach underrepresented groups more thoughtfully and respectfully.

Future Directions

To date, little is known about the effect of exposure to multiple languages before an autistic GLP has progressed through the NLA stages in a single language. Nonetheless, available research on multilingual and bilingual language development in autism has highlighted the disconnect between the findings of existing literature and current practices (Hantman et al., 2023; Labonté, 2022). Although work by Hambly and Fombonne (2012), Ohashi et al. (2012), and Peristeri et al. (2020) has suggested that acquiring more than one language does not negatively impact the language acquisition process of autistic individuals, health practices do not always reflect these findings (Baker, 2013; Kay-Raining Bird et al., 2012; Yu, 2013). More specifically, past research has shown that the standard recommendations of health practitioners for multilingual families of autistic individuals often involve discouraging the use of more than one language at home. Current research highlights the importance of continuing to explore the relationship between bilingualism/multilingualism and autism in order to better inform the recommendations health practitioners make to multilingual families (Beauchamp & MacLeod, 2017; Peristeri et al., 2021; Prévost & Tuller, 2022).

Furthermore, Davis et al. (2022) discusses the vital role of family in the upbringing of an autistic individual and comments on the risks of sacrificing family integration, peer relationships, and overall quality of life due to the isolation that results from one's dissociation from one's home language (Davis et al., 2022). Similarly, Yu (2016) reported on the challenges of an autistic child raised as a monolingual within a bilingual family. The studies support the importance of the connection between autistic individuals and their linguistic/conversational partners—a reality that appears threatened whenever multilingualism is sacrificed as a result of misinformation.

Conclusions

Establishing connection based on trust overwhelmingly stands out as the most essential underlying support for gestalt language development and is at the core of the NLA protocol. The firsthand experiences of adult GLPs further emphasize that this foundational support cannot be overstated. Although Peters (1977), Prizant (1982, 1983), and Blanc (2012) have provided a foundation for understanding gestalt language development, further research is necessary in order to establish and explore gestalt language processing and its implications for language development across diverse communities.

In conclusion, it is essential for all people who support GLPs to acknowledge the value of the whole experience—the language, environment, sensations, and emotions—behind the gestalts. As clinicians, we play an important role in supporting language development when we seek to understand and adapt our own communication styles and, in turn, attune ourselves to the essence of the individual. When we, as clinicians, create experiences that are worth remembering, we can feel more confident that we are truly meeting the individual where they are and being the communication partners that they deserve.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

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References

Aspinwall, C., Pearson, D., & Hurford-Jones, H. (Producers). (2018–present). *Bluey* [TV series]. Ludo Studio.

Baker, D. (2013). Particular polyglots: Multilingual students with autism. *Disability & Society, 28*(4), 527–541. https://doi.org/10.1080/09687599.2012.717883

Beauchamp, M. L. H., & MacLeod, A. A. N. (2017). Bilingualism in children with autism spectrum disorder: Making evidence based recommendations. *Canadian Psychology/Psychologie Canadienne, 58*(3), 250–262. https://doi.org/10.1037/cap0000122

Blanc, M. (2012). *Natural Language Acquisition on the autism spectrum: The journey from echolalia to self-generated language*. Communication Development Center, Inc.

Bloom, L. (1970). *Language development: Form and function in emerging grammars*. MIT Press. https://doi.org/10.7916/D8S75GT1

Blount, B. (1975). Studies in child language: An anthropological view. *American Anthropologist, 77*(3), 580–600. https://doi.org/10.1525/aa.1975.77.3.02a00070

Bottema-Beutel, K., Kapp, S. K., Lester, J. N., Sasson, N. J., & Hand, B. (2021). Avoiding ableist language: Suggestions for autism researchers. *Autism in Adulthood, 3*(1), 18–29. https://doi.org/10.1089/aut.2020.0014

Brown, R., & Bellugi, U. (1964). Three processes in the child's acquisition of syntax. *Harvard Educational Review, 34*(2), 133–151. https://doi.org/10.17763/haer.34.2.c5263w0q03222r14

Davis, R., Hampton, S. C., & Fletcher-Watson, S. (2022). Why study bilingualism in autistic people? *Autism, 26*(7), 1601–1605. https://doi.org/10.1177/13623613221126115

Ferguson, C. A., & Farwell, C. B. (1975). Words and sounds in early language acquisition. *Language, 51*(2), 419–439. https://doi.org/10.2307/412864

Hambly, C., & Fombonne, E. (2012). The impact of bilingual environments on language development in children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 42*(7), 1342–1352. https://doi.org/10.1007/s10803-011-1365-z

Hantman, R. M., Choi, B., Hartwick, K., Nadler, Z., & Luk, G. (2023). A systematic review of bilingual experiences, labels, and descriptions in autism spectrum disorder research. *Frontiers in Psychology, 14,* Article 1095164. https://doi.org/10.3389/fpsyg.2023.1095164

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Science, 33*(2–3), 61–83. https://doi.org/10.1017/S0140525X0999152X

Kay-Raining Bird, E., Lamond, E., & Holden, J. (2012). Survey of bilingualism in autism spectrum disorders. *International Journal of Language & Communication Disorders, 47*(1), 52–64. https://doi.org/10.1111/j.1460-6984.2011.00071.x

Labonté, C. (2022). *Bilingualism in children with autism spectrum disorder: Bilingual development and advantages on executive and adaptive functioning* [Thesis]. https://era.library.ualberta.ca/items/4e058431-82ff-4d97-ba48-64e917c84b05/download/68f12411-ec80-4103-a327-e2cfae05077e

Lee, L. L. (1966). Developmental sentence types: A method for comparing normal and deviant syntactic development. *Journal of Speech and Hearing Disorders, 31*(4), 311–330. https://doi.org/10.1044/jshd.3104.311

Lee, L. L., & Canter, S. M. (1971). Developmental Sentence Scoring: A clinical procedure for estimating syntactic development in children's spontaneous speech. *Journal of Speech and Hearing Disorders, 36*(3), 315–340. https://doi.org/10.1044/jshd.3603.315

Miller, J. F. (1981). *Assessing language production in children: Experimental procedures*. University Park Press.

Nelson, K. (1973). Structure and strategy in learning to talk. *Monographs of the Society for Research in Child Development, 38*(1/2), 1–135. https://doi.org/10.2307/1165788

Ohashi, J. K., Mirenda, P., Marinova-Todd, S., Hambly, C., Fombonne, E., Szatmari, P., Bryson, S., Roberts, W., Smith, I., Vaillancourt, T., Volden, J., Waddell, C., Zwaigenbaum, L., Georgiades, S., Duku, E., Thompson, A., & the Pathways in ASD Study Team. (2012). Comparing early language development in monolingual- and bilingual- exposed young children with autism spectrum disorders. *Research in Austim Spectrum Disorders, 6*(2), 890–897. https://doi.org/10.1016/j.rasd.2011.12.002

Owens, R. E., Pavelko, S. L., & Bambinelli, D. (2018). Moving beyond mean length of utterance: Analyzing language samples to identify intervention targets. *Perspectives of the ASHA Special Interest Groups, 3*(1), 5–22. https://doi.org/10.1044/persp3.sig1.5

Oxford English Dictionary. (n.d.). *Gestalt, n*. Oxford University Press. https://doi.org/10.1093/OED/4924194573

Peristeri, E., Baldimtsi, E., Andreou, M., & Tsimpli, I. M. (2020). The impact of bilingualism on the narrative ability and the executive functions of children with autism spectrum disorders. *Journal of Communication Disorders, 85,* Article 105999. https://doi.org/10.1016/j.jcomdis.2020.105999

Peristeri, E., Vogelzang, M., & Tsimpli, I. M. (2021). Bilingualism effects on the cognitive flexibility of autistic children: Evidence from verbal dual-task paradigms. *Neurobiology of Language, 2*(4), 558–585. https://doi.org/10.1162/nol_a_00055

Peters, A. M. (1977). Language learning strategies: Does the whole equal the sum of the parts? *Language, 53*(3), 560–573. https://doi.org/10.2307/413177

Peters, A. M. (1983). *The units of language acquisition*. Cambridge University Press. http://www.ling.hawaii.edu/faculty/ann/units.0.pdf

Prévost, P., & Tuller, L. (2022). Bilingual language development in autism. *Linguistic Approaches to Bilingualism, 12*(1), 1–32. https://doi.org/10.1075/lab.21018.pre

Prizant, B. M. (1982). Gestalt language and gestalt processing in autism. *Topics in Language Disorders, 3*(1), 16–23. https://doi.org/10.1097/00011363-198212000-00006

Prizant, B. M. (1983). Language acquisition and communicative behavior in autism: Toward an understanding of the "whole" of it. *Journal of Speech and Hearing Disorders, 48*(3), 296–307. https://doi.org/10.1044/jshd.4803.296

Prizant, B. M., & Duchan, J. F. (1981). The functions of immediate echolalia in autistic children. *Journal of Speech and Hearing Disorders, 46*(3), 241–249. https://doi.org/10.1044/jshd.4603.241

Prizant, B. M., & Rydell, P. J. (1984). Analysis of functions of delayed echolalia in autistic children. *Journal of Speech and Hearing Research, 27*(2), 183–192. https://doi.org/10.1044/jshr.2702.183

Stiegler, L. N. (2015). Examining the echolalia literature: Where do speech-language pathologists stand? *American Journal of Speech-Language Pathology, 24*(4), 750–762. https://doi.org/10.1044/2015_AJSLP-14-0166

Sykes, J. (2022). *Growing up undiagnosed, part 1. Collectively Connecting Blog*. https://communicationdevelopmentcenter.com/growing-up-undiagnosed-part-1/

Templin, M. C. (1957). *Certain language skills in children: Their development and interrelationships* (Institute of Child Welfare Monograph 26). University of Minnesota Press. https://doi.org/10.5749/j.ctttv2st

Yu, B. (2013). Issues in bilingualism and heritage language maintenance: Perspectives of minority-language mothers of children with autism spectrum disorders. *American Journal of Speech-Language Pathology, 22*(1), 10–24. https://doi.org/10.1044/1058-0360(2012/10-0078)

Yu, B. (2016). Bilingualism as conceptualized and bilingualism as lived: A critical examination of the monolingual socialization of a child with autism in a bilingual family. *Journal of Autism and Developmental Disorders, 46*(2), 424–435. https://doi.org/10.1007/s10803-015-2625-0