

A Psycholinguistic Analysis of Speech Difficulties in Autistic Children

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ABSTRACT

Psycholinguistics is the discipline that examines the cognitive processes that underlie the use, comprehension, and production of language. It involves the study of how individuals learn languages, how they understand spoken and written language, and how language is represented and processed in the brain. Autistic children often face a variety of psycholinguistic challenges that affect their ability to communicate effectively, especially in speech development and language use. One of the core features of autism is difficulty with expressive and pragmatic language. This study explores the speech difficulties and psycholinguistic challenges of two autistic children through a qualitative approach. The participants aged nine and seven are the researcher's children, both diagnosed with autism and attending a special education institute. Data were collected through structured interviews with their teachers, providing insights into the children's communication behaviours. Findings reveal consistent difficulties in several language areas, such as speech initiation, grammatical and syntactic errors, echolalia, pronoun reversal, and limited expressive abilities. Pragmatic challenges

include problems with conversation turn-taking and adapting language to social situations. However, one child showed relatively stronger communication with familiar individuals, suggesting that the environment significantly influences language performance. This research adds to the growing body of knowledge on autism within the Kurdish context, emphasising the importance of culturally responsive language support. The findings offer valuable guidance for educators, therapists, and caregivers, helping to inform more effective and individualised communication strategies for autistic children.

1. Introduction

One of the most essential instruments for human communication is language. It facilitates the communication of ideas, feelings, and needs. It is necessary for social interaction and cognitive growth, and it shapes people's relationships with others and their surroundings (Chomsky, 1965). However, not everyone can develop language in the same way, especially for those who are diagnosed with autism spectrum disorder (ASD). According to the American Psychiatric Association (2013), ASD is a neurodevelopmental disease characterised by difficulties with social interaction, communication, and repetitive activities. The disorder's manifestations can vary greatly. Language development is one of the most notable areas impacted in people with ASD, and it can vary from severe speech delays to odd language patterns. Understanding these challenges is crucial for developing effective interventions and support systems.

Inappropriate language development and linguistic deficits are common in children diagnosed with ASD. While some children never speak, others may acquire speech but have difficulty with pragmatic language skills—those that deal with language usage in social situations (Tager-Flusberg, 2016). Early signs of ASD are frequently observed in children who struggle to communicate,

whether it is via delayed word acquisition, difficulty in structuring sentences, echolalia, or the repeated use of words or phrases without understanding. These language impairments affect social interactions and relationships, making it difficult for the youngster to communicate needs and feelings.

For an understanding of these difficulties in children with ASD, psycholinguistics, the study of how psychological and neurological variables impact language learning and use, offers a useful framework. According to studies in this area, such as those by Kjelgaard and Tager-Flusberg (2001), and Rapin and Dunn (2003), joint attention, which is the capacity to concentrate on a shared object or event with another person, is a skill that autistic children frequently struggle with and is crucial for language acquisition (Boucher, 2012). Children who lack this ability lose out on the possibilities for language learning, such as the early establishment of word associations with objects or activities. These tendencies are linked to differences in how autistic individuals process language and social cues.

This research aims to study the psycholinguistic challenges that two children, aged nine and seven years old, diagnosed with ASD face. The researcher seeks to identify recurring patterns in their language development. By incorporating insights from caregivers and teachers, this study will provide a comprehensive understanding of the specific language challenges faced by autistic children. The ultimate goal is to highlight the need for individualised interventions that address the psycholinguistic difficulties of autistic children, supporting them to overcome communication barriers and improve the quality of their lives.

2.1. Psycholinguistics

Throughout history, until nowadays psycholinguists and scholars have made numerous attempts to define psycholinguistics. Psycholinguistics is the study of processing and knowledge representations that enforce the ability to produce and understand language and how these are related to other aspects of human cognition, it explores how people can use language moment by moment, how children acquire this ability and how language use becomes impaired due to

ageing, brain damage or developmental disorders. The field combines insights from linguistics, psychology, neuroscience and computer science. (Cowles, 2011, pp 10-11). According to Carroll (2008, p. 4, 8), psycholinguistics is the study of how people understand, produce, and learn language, which is part of cognitive science, thinking about the insights of linguistics, psychology, and other fields like computer science, neuroscience and philosophy. Psycholinguistics also addresses knowledge of language and cognitive processes involved in language use. It is the field of linguistics that has a direct relationship with human life because it tries to explain how humans process, produce and acquire language and how they use language in daily communication. Psycholinguistics also examines the mental and neurological processes that are related to language. This field also has practical applications that affect various aspects of human life, including mental health, education, communication, and therapeutic language disorders.

Field (2011, p 472) defines psycholinguistics as the study of the mental components of language and speech. It focuses on the cognitive processes that underlie language use and comprehension in humans and emphasises understanding how language functions are processed in the mind (whether language shares functions with general cognition or operates independently) and explores the complex relationship between language and thought.

According to Field (2004, p. ix), psycholinguistics examines how humans use language, focusing on the processes involved in developing speech and writing, understanding others' languages, storing and utilising vocabulary, learning a language, and examining instances when language fails us. Specifically, it examines the cognitive and psychological mechanisms that underlie language use and acquisition.

As a result, most of the scientists and scholars in the field agree that psycholinguistics is a multidisciplinary approach that explores how people learn, process and produce language and figures out the relationship between language and thought.

2.2. Autism Spectrum Disorder

It is a neurodevelopmental disorder, which is a condition that starts during early childhood and results in deficits that affect personal, social, academic or occupational functioning. ASD is characterised by persistent deficits in social communication and interaction across multiple contexts. These include the presence of restricted repetitive patterns of behaviour, interests or activities, difficulties with social reciprocity, nonverbal communicative behaviours such as eye contact and gestures and also challenges in developing, maintaining and understanding relationships. Compensatory mechanisms may be masked since the symptoms change with development, and the diagnostic criteria can be met according to historical information, even though the present presentation must result in significant impairment. (American Psychiatric Association, 2013, pp. 31-32).

The term “spectrum” means that symptoms may look different for each person. Although there are clear patterns that define the diagnosis of ASD, there is a wide range of how different symptoms affect different people. For example, a child may have social skills difficulties and less repetitive behaviour. Another one could be overwhelmed with routines and have an easier experience with the language. (Huang-Storms, 2017, p. 17)

This is completely true for the children in this study. C1 faces significant challenges with language and social skills, but he can manage routines more easily. In contrast, C2 experiences fewer difficulties with language but is highly engaged in repetitive behaviours such as hand flapping, spinning around himself, spinning objects like the wheels of toy cars or spinning the lids of tea and sugar cans and similar objects at high speed. According to CAMHS (2018, p. 2), autism is not a disease or illness. However, individuals with ASD have several challenges that can significantly affect their quality and abilities. Mace (2022, p. 34) states that even though ASD can be diagnosed at any age, it is considered a developmental disorder since symptoms typically begin to appear in the first two years of life.

Autism might have occurred in all ethnicities, socioeconomic groups and races. Whereas ASD is a lifelong condition, a person's symptoms and functioning may get better with the help of programmes and treatments. The American Psychiatric Association recommends that all children should be screened for ASD and all caregivers should talk to their doctors about ASD screening or diagnosis (Mace, 2022, p. 34).

Another aspect of autism is related to gender, in which Sharma (2015, p. 10) states that ASD is four to five times more common in boys than girls. However, compared to boys, girls with this condition are more likely to experience severe mental disabilities.

2.3. The Diagnosis of ASD

Tager-Flusberg (2016, p. 1) states that according to DSM-5, two groups of symptoms are used to diagnose ASD: (a) deficiency in social communication, (b) the existence of repetitive behaviours and restricted interests. To diagnose a child with ASD, all three criteria under social communication must be met: deficits in

A. Social-emotional reciprocity, such as having difficulty initiating or maintaining conversation, sharing emotions, or responding to social cues.

B. Nonverbal communication, such as lack of facial expression, abnormal eye contact, body language, gestures, or difficulties integrating verbal and nonverbal communication.

C. Relationships, such as the ability to form and maintain relationships, change behaviour to fit social contexts, adapt language to different listeners, show interest in others, and other pragmatic aspects of language, are challenging. (American Psychiatric Association, 2013, p. 50).

For the second cluster of symptoms, a child has to meet at least two distinct abnormal behavioural features, including stereotyped motions or repetitive motor movements, for example, hand flapping when they are happy or upset or tapping fingers on objects in a rhythmic pattern. Insisting on sameness, like insisting on eating the same food every day in a specific order. For example, C1

insisted on eating bulgers almost every day for about 2-3 months, he didn't eat anything else. Highly restricted hobbies or unusual sensory sensitiveness, for example having detailed knowledge about a specific object and neglecting the other topics, both children in this study demonstrate a remarkable ability to identify and recall detailed information about various car models and manufacturers. For instance, when they are on the street they can accurately name and differentiate between vehicles such as Toyota Corolla, Nissan Altima, Nissan Sunny, Nissan Sentra, Toyota Prado, etc... and they strongly desire to own all these types of cars. Their ability to recognise showcases their intense focus and exceptional memory related to this specific interest.

Tager-Flusberg (2016, p. 2) states that rating the degree of severity of the condition of the autistic child is another requirement for the diagnosis and is measured based on the degree of assistance required. According to APA (2013, p. 52), there are three levels of severity: level one is needing assistance, level two is needing a lot of assistance, and level three is requiring very significant assistance is required. Restrictive, repetitive behaviours and the degree of social communication impairments should be rated separately.

The global standard for diagnosing ASD includes a thorough framework that includes a detailed developmental history usually provided by parents or caregivers, as well as clinical observations to evaluate behaviour communication patterns and social interactions, and the diagnosis process is ensured by a multidisciplinary approach combining experts such as psychologists, speech therapists and physicians. Furthermore, the diagnosis must meet accepted standards, including those listed in DSM-5 (Lord et al., 2018)

According to the American Psychiatric Association (2013, p. 53), an individual should be tested for language skills to identify whether they have a diagnosis of autism spectrum disorder (ASD) with or without language impairment. Individuals with language impairment might be nonverbal, or express only single words, or only very short phrases, while those without impairment may speak in full sentences or fluently. Furthermore, because receptive language (the ability

to understand) in children with ASD often lags behind expressive language (the ability to speak), it should be assessed independently from expressive language. There are many comorbid conditions with ASD. It is often linked to intellectual impairment and structural language disorder, which affects sentence comprehension and construction. Many individuals with ASD also experience psychiatric conditions. 70% of them have at least one comorbid mental disorder, and 40% have two or more. When ASD coexists with other conditions like Attention-Deficit/Hyperactivity Disorder (ADHD), anxiety, depression, or developmental disorder, both diagnoses should be given. Observable symptoms like changes in eating or sleeping patterns and an increase in challenging behaviour should prompt an evaluation for anxiety or depression in nonverbal people or those with language impairments. Both developmental coordination issues and specific learning disabilities (literacy and numeracy) are prevalent. (American Psychiatric Association, 2013, pp. 58-59).

2.4. Linguistic Features and Speech Impairments in Autistic Children

Children with autism often exhibit distinctive patterns of language use that differ from typically developing peers. This section explores key linguistic features commonly affected in autistic individuals, including echolalia, syntactic and grammatical difficulties, and pragmatic impairments.

2.4.1. Echolalia

Kim et al. (2014, p. 242) state that one of the most common features of speech in autism is echolalia, in which words or phrases are repeated in the same tone of voice. It can be immediate, as in a child saying “Good morning class” repeats his/her teacher’s greeting without initiating his/her greeting. Or it can be delayed, when a child watches a cartoon where a character says, “Let’s go on an adventure”. Later, when the child wants to play, says “Let’s go on an adventure” to invite someone to join him/her.

(Prizant & Duchan, 1981 p.244) highlight that immediate echolalia has six functions, which are: turn-taking, assertions, affirmative answers, requests,

rehearsing to aid understanding, and self-regulation. Delayed echolalia can be used to recreate past tenses, such as when a child says, “You are ok?” sympathetically after falling.

2.4.2. Syntax and Grammar

Kim, et al. (2014, pp. 240- 242) suggest that individuals with ASD use fewer different sentence structures and ask fewer questions and they struggle with grammar rules such as using articles (a, the), verb tenses (past tense, and present), and auxiliary verbs (am, is, are). In this, the children who speak Kurdish Sorani experience grammar difficulties, particularly with tenses and word order. For example, instead of saying “ I drink water”, C1 might say “ drank water”, omitting the first-person pronoun and incorrectly changing the tense to past. Rapin & Dunn(2003) discuss that children with ASD struggle with syntactic development; they often use rudimentary, poorly articulated sentences, and their speech may lack complexity, with sentences that are short and grammatically incorrect. For example, they might omit key elements like articles, conjunctions, or verb tenses, making their sentences incomplete or difficult to understand. They also make structural errors, which involve mistakes in the grammatical structure of sentences, such as incorrect word order or misuse of grammatical markers. For example, C2 says “go park I” instead of “I go to the park.”

2.4.3. Pragmatics

Pragmatics is the study of how language is used in different social situations (Ilie & Norrick, 2018, p. 1). A common issue is unresponsiveness, as they will often either ignore the questions you ask or provide answers that are completely unrelated to those questions. Another challenge is that their speech may also be incoherent, resulting in incoherent discourse that feels on-topic and does not immediately flow into the prior statement. In addition, many children with ASD have a diminished desire to communicate, being rewarded little, if at all, for starting or maintaining communication. Finally, they have difficulty maintaining

conversation, where they need to take turns, stay on topic, or bring up new ideas, making the conversation feel one-sided or incomplete. (Rapin & Dunn, 2003, p. 168).

2.4.4.Pronoun Reversals

It is a condition in which speakers fail to switch between the first and second-person pronouns (I=you). It is closely related to language comprehension, and it is very common in autistic individuals (Dromi et al., 2021, p. 148). For example, when an autistic child wants to say “ I want a cookie”, says, “You want a cookie”. (Kim, et al., 2014, p. 243) state that young children with autism commonly experience a stage of pronoun reversals, but as they grow older, those with more advanced linguistic abilities stop making these mistakes.

(Rice et al. 1994, cited in Dromi et al., 2021, p. 148) Noted that pronoun acquisition is difficult since it requires shifting focus and making references between the speaker and the listener.

3. Methodology

This section outlines the methodology used to collect data and then to provide answers to the research questions. In this study, a qualitative approach is used, which specifically meets the requirements of exploring complicated phenomena and allows a deep understanding of individual experiences and ideas. It includes structured interviews with educators and caregivers to get further insights.

3.1. Interview

One of the approaches of qualitative research methods is an interview. A researcher engages in direct conversation with the participants to collect detailed data about their opinions, thoughts, ideas, experiences or perspectives on a particular topic (Denscombe, 2021, p. 229). The interview method is widely used when the researcher intends to explore complex phenomena or examine topics that require flexibility and follow-up questions (Bryman, 2016).

In this study, a semi-structured interview was initially planned with the teachers and caregivers, but they preferred a structured interview rather than a semi-structured one to make sure that they had enough time and space for their responses.

The interview questions were designed to explore key themes related to the psycholinguistic challenges faced by autistic children, including echolalia, pronoun reversals, speaking difficulty in new situations and grammatical mistakes. Two open-ended questions were developed, and the teachers' responses, which were in Kurdish Sorani, were translated into English.

3.3. The Participants

The study focuses on two children, referred to as C1 and C2, to ensure confidentiality. Both participants are male and speak Kurdish Sorani, with a mixture of Hawleri and Kerkuki dialects. C1 was diagnosed with autism at age three years old, and C2 at age two years old. They both experience a range of speech difficulties, including speech delay, echolalia, incomplete sentences, and difficulty with social communication. Both children attend a special education institute. Additionally, four female teachers who are at the same time caregivers, specialising in special education, aged between 25 and 30 years, were purposely selected for interview due to their daily interaction with the children. Table 3.1 presents anonymised information of the teachers who participated in the study, each one is referred to with a code (T1, T2, T3 and T4).

Table 3.1. Teacher's information

Teacher code	Specialisation	Age	Years of experience	Educational background
T1	Autism Specialist	30	7	MA Degree in Special education
T2	Autism Specialist	25	3	BA Degree
T3	Special education	24	2	BA Degree
T4	Special education	24	2	BA Degree

3.4. Data analysis methods

In this research, the data is analysed using thematic analysis, which is the procedure of pointing out or identifying the patterns or themes within qualitative data.

According to Braun and Clarke (2006), thematic analysis involves six steps. The researcher first immerses in the data by transcribing recordings and reviewing notes. Then, data is systematically organised, and initial codes related to language difficulties are developed. These codes are grouped into potential themes, which are reviewed, clearly defined, and labeled, such as Challenges in Articulation, referring to issues with pronunciation, sound omissions, and substitutions. The final step presents the analysis, supported by relevant data examples.

3.5. The Interview Data

This section presents the teacher's structured interview narration. The researcher asked the teachers two questions, and their responses are described accordingly. For each question, the direct quote of a teacher is provided, which is written in Kurdish Sorani and the Latin alphabet is used, as well as their translation into English is included in brackets. The questions are provided in Appendix A.

All teachers agree that both children face difficulties in speech. T1 states that C1 struggles to initiate speech, while C2 can do so, but he has linguistic errors, and both of them can answer class-related questions better than normal speech. She also states that C1 can make sentences, when necessary, but he mostly loves answering in single words rather than continuous speech. He does not prefer speaking with others and often repeats what you say. T2 notes that C1 cannot always use complete sentences, but C2 can, even though he sometimes makes word order mistakes and when they are hungry or thirsty, they say "are you hungry or thirsty" instead of "I am hungry, or thirsty".

(When he is hungry, he says "you are hungry" instead of "I am hungry").

T3 observes that C1 remains mostly silent and speaks only when necessary, and he uses short, simple sentences. C2 struggles with social communication rather than linguistic challenges; she believes that, even though he has some grammatical errors, he can speak well with familiar people. T4 notes that the children cannot provide appropriate responses when they are asked a question.

(C1 has several different speech problems, including: Not able to initiate conversation, able to make sentences but often wants to answer in one word, does not want to continue the discussion with the other person, and sometimes when I ask him a question, he repeats my words.)

4. Discussion and Results

The analysis is conducted thematically by categorising the teacher's answers into themes and codes. Table 4.1 shows the themes and codes

Table 4.1 Thematic Analysis of Teacher’s Interview.

NODE	CODE	FREQUENCY
Speech and expressive language challenges	1. Speech initiation	4
	2. Linguistic errors and grammatical mistakes.	3
	3. No response	2
	4. Pronoun reversal	4
	5. Echolalia	1
	6. Speaking difficulty in new situations	2

4.1. Speech Initiation

The teachers frequently reported that both children struggle with speech. They face different linguistic difficulties. Pragmatics is one of the core issues, such as initiating conversations, inappropriate answers to questions, and sometimes remaining silent and not caring about others. This is aligned with the findings

from Ilie & Norrick (2018), who suggest that a common issue is unresponsiveness, as they will often either ignore the questions you ask or provide completely unrelated answers. Another challenge is that their speech may be incoherent, resulting in incoherent discourse that feels on-topic and does not immediately flow into the prior statement. Rapin and Dunn (2003) also state that they have difficulty maintaining conversations and taking turns. This is evident in the responses from the teachers.

(C1 has several different speech problems including: Not able to initiate conversation, able to make sentences but often wants to answer in one word, does not want to continue the conversation with the other person, and sometimes when I ask him a question, he repeats my words).

4.2. Linguistic Errors and Grammatical Mistakes.

Another problem is grammatical or syntactic errors, such as forming sentences incompletely and word order mistakes.

(When he is thirsty, he says “water” instead of a full sentence like “ I am thirsty”). These findings align with the theoretical background as Rapin & Dunn (2003) discuss that children with ASD Struggle with syntactic development; they often use rudimentary, poorly articulated sentences, and their speech may lack complexity, with sentences that are short and grammatically incorrect.

4.3. Silence

The teachers highlight that both children face difficulty expressing their daily needs; either they stay silent, express it with a single word, or point to what they want. The teachers’ observation reflects a core psycholinguistic challenge often seen in autistic children: impaired expressive language abilities. Sturrock et al. (2021) state that when children with ASD cannot communicate their thoughts, feelings, or needs due to a lack of understanding, frustration and interruption in communication may occur. Foster Care Associates (n.d) also states that They might have some different methods of communication, like sign language, gestures, or pointing.

4.4. Pronoun Reversal

(When he is hungry, he says “you are hungry” instead of “I am hungry”).

The child refers to himself using the second-person pronoun “**you**” rather than the first-person pronoun “**I**”. This reflects a difficulty in perspective-taking and self-other distinction, which are essential for accurate pronoun use. Dromi et al. (2021) discuss that pronoun reversal is a condition in which speakers fail to switch between the first and second-person pronouns (I=you). It is closely related to language comprehension and is very common in individuals with autism.

4.5. Echolalia

One of the teachers states that “Sometimes when I ask him a question, he repeats my words.” It provides a clear example of immediate echolalia, a well-documented psycholinguistic feature commonly observed in autistic children. This behaviour is particularly important in understanding how children on the autism spectrum process language in distinct ways. Kim et al. (2014, p. 242) state that one of the most common features of speech in autism is echolalia, in which words or phrases are repeated in the same tone of voice. It can be immediate, as in a child saying “Good morning class” repeats his/her teacher’s greeting without initiating his/her greeting. Or it can be delayed, when a child watches a cartoon where a character says “Let’s go on an adventure”, later, when the child wants to play, says “ Let’s go on an adventure”, to invite someone to join him/her.

4.6. Difficulty Speaking in New Situations

Another teacher states that “C2 struggles with social communication rather than linguistic challenges.” She believes that, even though he has some grammatical errors, he can speak well with familiar people.

The teacher notes that C2 can speak relatively well with familiar people, which suggests that his core language skills, such as forming sentences, using vocabulary, and expressing ideas, are somewhat intact, even though minor grammatical errors are present. This reflects that C2’s linguistic ability, in terms

of syntax, morphology, and lexical access, is developing, though not without challenges.

However, his primary difficulties appear to lie in social communication, which is according to APA (2013), is one of the hallmark features of autism.

4.2. Results

The data collected from teachers reveal that both children face notable psycholinguistic challenges. These include difficulties with initiating speech, limited conversation skills, and unresponsiveness. Grammatical errors, such as incomplete sentences and incorrect word order, are common. Expressive language is also impaired, often reduced to one-word responses or gestures. Pronoun reversal and echolalia are frequently observed, reflecting challenges with perspective-taking and language processing. While one child communicates better with familiar people, both struggle in new social contexts, pointing to significant pragmatic language deficits.

5. Conclusion

This study explores the psycholinguistic challenges and speech difficulties faced by two autistic children through, qualitative approach supported by teacher interviews. The findings reveal a range of language impairments, including difficulties with speech initiation, grammatical errors, pronoun reversal, echolalia, and limited ability to express needs. Most notably, pragmatic language emerged as a central area of difficulty, affecting the children's ability to engage in meaningful social interactions. These challenges are more evident in unfamiliar settings, while communication with familiar individuals appears more functional. The study emphasises the importance of understanding both the structural and functional aspects of language in autistic children. It also highlights the need for context-sensitive, individualised support strategies that consider both linguistic and social dimensions. Ultimately, this research contributes to the limited body of literature on autism and language within the Kurdish context and

offers valuable insights for educators, speech therapists, and caregivers working with autistic children.

References

- (CAMHS), C. a. (2018). *Autism: A pack for parents and carers. Neuro Developmental Conditions Pathway*. Retrieved 12 10, 2024, from <https://www.oxfordhealth.nhs.uk/camhs/wp-content/uploads/sites/13/2019/06/ASD-Pack-for-Parents-and-Carers-NDC2018.pdf>
- American Psychiatric Association (2013). *DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Ben-Sasson, A., & Stephenson, K. (2021). The Role of Anxiety Symptoms in Understanding Restricted, Repetitive Behaviours and Interests in Autism Spectrum Disorders. In E. Gal, & N. Yirmiya (Eds.), *Repetitive and Restricted Behaviours and Interests in Autism Spectrum Disorders: From Neurobiology to Behaviour* (pp. 175-197). Cham: Springer.
- Boucher, J. (2012). Research Review: Structural language in autistic spectrum disorder – characteristics and causes. *Journal of Child Psychology and Psychiatry*, 53(3), 219–233. doi:10.1111/j.1469-7610.2011.02508.x
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:<https://doi.org/10.1191/1478088706qp063oa>
- Bryman, A. (2016). *Social Research Methods*. Oxford: Oxford University Press.
- Carroll, D. (2008). *Psychology of language* (5th ed.). Belmont, CA: Thomson Wordworth.
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Press.
- Cowles, H. (2011). *Psycholinguistics 101*. New York: Springer Publishing Company.
- Denscombe, M. (2021). *The Good Research Guide: Research methods for small-scale social research projects* (7th ed.). London: Open University Press.
- Dromi, E., Oren, A., & Mimouni-Bloch, A. (2021). Language Comprehension and Speech Production in Young Children with Autism Spectrum Disorder: Psycho-Linguistic Insights on Restricted, Repetitive Behaviours and Interests. In E. Gal, & N. Yirmiya (Eds.), *Repetitive and Restricted Behaviours and Interests in Autism*

- Spectrum Disorders: From Neurobiology to Behaviour* (pp. 143-157). Cham: Springer Nature Switzerland. doi:10.1007/978-3-030-66445-9.
- Eigsti, I.-M., Marchena, A. B., Schuh, J. M., & Kelley, E. (2011). Language acquisition in autism spectrum disorders: A developmental review. *Research in Autism Spectrum Disorders*, 5(2), 681–691. doi:10.1016/j.rasd.2010.09.001
- Field, J. (2004). *Psycholinguistics: The Key Concepts*. London: Routledge.
- Field, J. (2011). Psycholinguistics. In J. Simpson (Ed.), *The Routledge Handbook of Applied Linguistics* (pp. 472-486). London: Routledge.
- Huang-Storms, L. (2017). *Autism Spectrum Disorder Handbook*. OHSU Doernbecher Children's Hospital, Portland, OR: OHSU Doernbecher Child Development and Rehabilitation Center.
- Ilie, C., & Norrick, N. R. (2018). Pragmatics and its Interfaces. In C. Ilie, & N. R. Norrick (Eds.), *Pragmatics and its Interfaces* (pp. 1-10). Amsterdam: John Benjamins Publishing. doi:10.1075/pbns.294
- Kim, S. H., Paul, R., Tager-Flusberg, H., & Lord, C. (2014). Language and communication in autism. In *Handbook of Autism and Pervasive Developmental Disorders: Volume 1 - Diagnosis, Development, and Brain Mechanisms* (pp. 230-262). Hoboken, NJ: John Wiley & Sons.
- Kjelgaard, M. M., & Tager-Flusberg, H. (2001). An investigation of language impairment in autism: Implications for genetic subgroups. *LANGUAGE AND COGNITIVE PROCESSES*, 16(2), 287–308. doi:10.1080/01690960042000058
- Lord, C., Elsabbagh, M., Baird, G., & Veenstra-Vanderweele, J. (2018). Autism spectrum disorder. *The Lancet*, 392(10146), 508–520. doi:10.1016/S0140-6736(18)31129-2
- Mace, J. (2022). *The Little Book of Autism Resources*. McLean County 377 Board. Retrieved from <http://www.autismmclean.org/>
- 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. doi:10.1044/jshd.4603.241
- Rapin, I., & Dunn, M. (2003). Update on the language disorders of individuals on the autistic spectrum. *Brain & Development*, 25(3), 166–172. doi:10.1016/S0387-7604(02)00191-2
- Sharma, A., Gokulchandran, N., Sane, H., Biju, H., & Shetty, A. (2015). *Parent and Teacher Guide Book for Autism* (2nd ed.). Mumbai: NeuroGen Brain and Spine Institute.

Tager-Flusberg, H. (2016). Risk Factors Associated With Language in Autism Spectrum Disorder: Clues to Underlying Mechanisms. *Journal of Speech, Language, and Hearing Research*, 59, 143–154. doi:10.1044/2015_JSLHR-L-15-0146

شیکردنه وهیه کی سایکۆلۆژیای زمانه وانی بۆ دژواریه کانی قسه کردن لای مندا لانی ئۆتیزم

پوخته:

سایکۆلۆژیای زمانه وانی ئەو دیسپلینەیه که لیکۆلینەوه له پڕۆسه مهعریفیه کان دهکات که له پشت به کارهێنان، تیگه یشتن و به ره مه یانی زمانه وهن. ئەوه دهگریته وه که چۆن تاکه کان زمان فیر دهبن، چۆن له زمانی قسه کردن و نووسراو تیدهگه ن، و چۆن زمان له میشکدا نوینه رایه تی و پڕۆسه ی بۆ دهکریت. مندا لانی ئۆتیزم زۆرجار پوو به پرووی چه ن دین ته حه دای سایکۆلۆژیای زمانه وانی ده بنه وه که کاریگه ری دهکاته سه ر توانایان بۆ په یوه ندی کاریگه ر، به تایبه ت له گه شه ی قسه کردن و به کارهێنانی زماندا. یه کیك له تایبه تمه ندیه سه ره کییه کانی ئۆتیزم دژواریه له زمانی ده ربړین و پراگماتیک. ئەم توێژینه وه یه دژواریه کانی قسه کردن و ته حه دا سایکۆلینگو یستیه کانی دوو مندا لی ئۆتیزم له رێگه ی میتۆدیکی کوالیتیه وه ده خاته پوو. به شداربو وه کان ته مه ن ۹ و ۷ سالان، مندا له کانی توێژه رن، هه ردووکیان ده ست نیشان کردنی ئۆتیزمیان هه یه و ده چنه په یمانگایه کی په ره ره دی تایبه ت. داتا کان له رێگه ی چاوپێکه وتنی پیکهاته یی له گه ل مامۆستاکانیان کۆکراونه ته وه، که تییینی ده رباره ی ره فتاره کانی په یوه ندی مندا له کان ده خاته پوو. دۆزینه وه کان دژواریه به رده وامه کان له چه ن دین بواری زماندا ده خه نه پوو، وه ک دواکه وتنی ده ستپێکردنی قسه کردن، هه له ی رێزمانی و سینتاکسی، ئیکۆلایا، پیچه وانه کردنی جیئاو، و توانا کانی ده ربړینی سنووردار. ته حه دا کانی پراگماتیک به تایبه تی دیار بوون، له وانه ش کیشه کانی نۆره گرتن له گه توگۆدا و گونجاندنی زمان بۆ دۆخه کۆمه لایه تیه کان. هه رچۆنیک بێت، یه کیك له مندا له کان په یوه ندی به یژتری له گه ل که سانی ئاشنادا نیشان دا، که پێشنیاری ئەوه دهکات که ژینگه کاریگه ربیه کی به رچاوی هه یه له سه ر کارایی زمان. ئەم

تؤيِّزُنه وهيه زياد دهكات بۆ سهر كۆمه لێك زانستی گه شه سه ندوو له سهر ئۆتیزم له ناو چوارچێوهی كوردیدا، گرنگی یشتیوانی زمانی هه ستیار به كۆلتووری ده خاته ڤوو. دۆزینه وهكان ڤینمایی به نرخ ڤیشكهش دهكهن بۆ پهروه دهكاران، چاره سه ركاران، و چاو دیریکاران، كه یارمه تی دهدهن بۆ ئاگادار کردنی ستراتیژی په یوه ندی کردنی کاریگه رتر و تاكه كه سیتر بۆ مندالانی ئۆتیزم.

علم النفس اللغوي والتحديات اللغوية لدى الأطفال المصابين بالتوحد

الملخص:

علم النفس اللغوي هو التخصص الذي يدرس العمليات المعرفية الكامنة وراء استخدام اللغة وفهمها وإنتاجها. ويتضمن دراسة كيفية تعلم الأفراد للغات، وكيفية فهمهم للغة المنطوقة والمكتوبة، وكيفية تمثيل اللغة ومعالجتها في الدماغ. غالبًا ما يواجه الأطفال المصابون بالتوحد مجموعة متنوعة من التحديات النفسية اللغوية التي تؤثر على قدرتهم على التواصل بشكل فعال، خاصة في تطور الكلام واستخدام اللغة. إحدى السمات الأساسية للتوحد هي صعوبة التعبير اللغوي والبراغماتي.

تستكشف هذه الدراسة صعوبات النطق والتحديات النفسية اللغوية لطفلين مصابين بالتوحد من خلال نهج نوعي. المشاركون البالغون من العمر 9 و 7 سنوات هما أطفال الباحثة، وكلاهما تم تشخيصهما بالتوحد ويرتادان معهدًا للتعليم الخاص. تم جمع البيانات من خلال مقابلات منظمة مع معلميهما، مما وفر رؤى حول سلوكيات التواصل لدى الأطفال.

كشفت النتائج عن صعوبات متسقة في عدة مجالات لغوية، مثل تأخر بدء الكلام، والأخطاء النحوية والتركيبية، والمصاداة (ترديد الكلام)، وعكس الضمائر، ومحدودية القدرات التعبيرية. كانت التحديات البراغماتية واضحة بشكل خاص، بما في ذلك مشاكل في تناوب الأدوار في المحادثة وتكييف اللغة وفقًا للمواقف الاجتماعية. ومع ذلك، أظهر أحد الأطفال تواصلًا أقوى نسبيًا مع الأفراد المألوفين، مما يشير إلى أن البيئة تؤثر بشكل كبير على الأداء اللغوي.

تضيف هذه الدراسة إلى مجموعة المعرفة المتنامية حول التوحد ضمن السياق الكردي، مؤكدة على أهمية الدعم اللغوي المستجيب ثقافيًا. تقدم النتائج إرشادات قيمة للمربين والمعالجين ومقدمي الرعاية، مما يساعد على توجيه استراتيجيات تواصل أكثر فعالية وفردية للأطفال المصابين بالتوحد.

Appendix (A)

List of interview questions

1. Do the children experience difficulties with speech?
2. What specific psycholinguistic challenges do they face in language use and communication?