

# Language Disorder Experienced by Children Suffering ASD in Medan

Ridwan Hanafiah<sup>1</sup>, Clara R. N. Sitorus<sup>1</sup> and Muhammad Yusuf<sup>1</sup>

<sup>1</sup>English Literature Department, Faculty of Cultural Sciences, Universitas Sumatera Utara, Medan, Indonesia

**Keywords:** Language Disorder, Autism Spectrum Disorder (ASD), Language Acquisition.

**Abstract:** This paper is an attempt to discover the types of language disorder experienced by children suffering autism spectrum disorder (ASD). The data were in the form of phonemes, words, phrase, clause, and sentences used in the utterances of 2 children suffering ASD at Yayasan Tali Kasih School Medan. Based on the analysis, some kinds of language disorder experienced by children with ASD are phonological, morphological, syntactical, and semantic disorders. It can be inferred that language acquisition of children with ASD is notably different from normal children. This research also proves that they have difficulty in language production and language comprehension (mixed expressive-receptive language disorder). Then, language production in autistic children, especially speaking skill, occurs very slowly and they even take a long time to be capable of using sentences properly and correctly.

## 1 INTRODUCTION

(Dulm, 2002) states that psycholinguistic is an approach adopted by linguists and clinicians to interpret both normal and disordered language phenomena. Language disorder deals with disfluency of language leading to the impairment of understanding and expressing language and it is the most prevalent type of communication impairment affecting children (Suherman, 2016). People with language disorder may have problems in their daily communication. (Field, 2003) argues that language disorder problems may be in the form of receptive, expressive, or both receptive and expressive. This case is usually experienced by the children who have mental disorder such as autism spectrum disorder (ASD).

The language functioning impairment is one of the main characteristics of ASD (Tager-Flusberg, 1990). Children who suffer ASD are potential to have impairments in both receptive and expressive language disorders. Because of these impairments, they get failure to make social communication in their daily life. They also tend to have lack of eye contact and rarely play game with other people, yet they have difficulty in constructing social relationship. That is why they are usually ignored and neglected, and often misunderstood by the

community. Then, it is also supported by (Kuo, 2017) arguing that several atypical language features characterize children with ASD's language development.

Children with ASD experience language problem dominantly in language disordered, language impaired, delayed, or specific language impairment. Those are also found in varying degrees (Loucas, 2008). The same core of deficits on Autistic children are also described by American Psychiatric Association (Filipek, 1999) clarifying that autism is characterized by the diagnosed autism criteria with various indications and happened in various combinations. A child's communication ability varies depending upon his or her intellectual and social development.

Children with autism seem to be reluctant to speak, especially around unknown people. (Belkadi, 2006). Although some children with ASD speak relatively fluently which is often accompanied by word meaning errors, they are unable to involve much in conversation. Then, the intonation also tends to flat and wrong in making stress in speech. The syntactic ability is also delayed because they often echolalia (Indah & Abdurrahman, 2008). Some problems faced by children with ASD are

acquiring a well-speech process and comprehending the speech for social interaction experienced. In fact, they need to be treated earlier.

There are some previous researches dealing with children with ASD. (Leonard and Deevy, 2004) in their study explore the children having specific language impairment in terms of their lexical abilities. (Rice, 2005) conducted a research dealing with description of particular deficits in linguistics along with cognitive and linguistic skills connection. (Wicaksono, 2013) also conducted a research to find out language phenomenon on slow learner autistic child aged 13 years old. He did not only focus on sentences but also verb, noun, and numeral. As a result, he concluded that the language of autistic boy was very simple, because the autistic only said in one word and two words without giving the subject. Based on the illustration in advance, the researchers want to discover the types of language disorders experienced are by autistic children at Yayasan Tali Kasih school in Medan and this research is different from the previous researches in terms of subjects and focus of the research.

The school has differences from other schools, where students are taught differently from a normal person. All the students undergo mental disorder, called autism, so they are taught with different teaching methods. Based on that fact, the researchers have decided to do some observation in that school and took two children with autism randomly to be the subjects of this research.

## 2 LITERATURE REVIEW

### 2.1 Psycholinguistics

(Lado, 1976) argues that psycholinguistics is a branch of linguistic combining psychology and linguistics. (Aitchison, 1998) states that psycholinguistics is focused on the relationship between the human mind and the language. The study of psycholinguistics examines how we develop, perceive, and produce language. Meanwhile, (Hatch, 1983) defines that this branch of linguistics is focus on three aspects of language competence; acquisition, comprehension, and production. In short, psycholinguistics is the combination of two disciplines namely psychology and linguistics dealing with mind and language.

### 2.2 Language Disorder

The ability to speak and understand language is impaired due to several factors, such as damage to brain portion which is responsible for language (Steinberg, 2001). Since language and thought cannot be separated and thought is reflected in language use, this condition is called language disorder. (Rao, 2007) asserts that language disorder is the impairment in using or comprehending language including some aspects namely the form, the content, and or the function in any combination. To sum up, language disorder is a specific impairment in understanding and sharing thoughts and ideas which involves the processing of linguistic information. It is often utilized as general term referring to abnormalities in mother tongue or native language.

Language disorder in children shows large variation. (Simanjuntak, 1987) explains that children try to speak their first words between 9-18 months. Then, language is possible to be delayed, impaired, or both combination of delayed and impaired. This means that children suffering disorder experience language comprehension and production development more slowly in contrast to children who have the same age.

### 2.3 Types of Language Disorder

Language disorder is divided into expressive and receptive. A person with expressive language disorder has difficulty in using language while a person with receptive language disorder has difficulty in understanding language. Besides, (Field, 2003) argues that the types of language disorder may be expressive (impaired language production), receptive (impaired language comprehension), or combination of both.

(American Psychiatric Association, 1994) assert that expressive language disorder has some linguistic features include a limited amount of speech, weak of vocabulary skill, difficulty expressing ideas, slow rate of language development, and so on. In the contrary with expressive language disorder, receptive language disorder has the symptom including not seeming to listen, parroting words (echolalia), etc. The last one, Mixed expressive-receptive language disorder (Tots cited in Purwaningsih, 2011), is identified as developmental delays and difficulties in the capability of comprehending spoken language and speech production. A person who has mixed receptive-expressive language disorder will have the

incapability of comprehending, and or using words in context, expressing ideas, etc.

## 2.4 Autism Spectrum Disorder (ASD)

This disorder is also generally characterised by marked and enduring impairments within the areas of communication, behaviours, and social interaction (Volkmar, 2005). This is the reason why autistic people have great problem in language production such as daily conversation because it is the area of language production. Additionally, (Rofi, 2011) asserts that the problems that may be experienced in terms of language production cover phonology, syntax, semantics, or pragmatics aspects.

## 3 METHOD

This research employed qualitative research. Miles and Huberman (Hanafiah, 2016) assert that this method is used to describe the data dealing with meanings of those we are researching, and it is also applicable as the basis of work approach and has become the main element in research of certain social sciences. The source of the data was the utterances produced by 2 children (one girl and one boy) suffering ASD at Yayasan Tali Kasih Medan. The boy was 11 years old and was diagnosed as a pure autism and experienced speech delay. Meanwhile, the other one, girl, was 12 years old and was also diagnosed as an autism with mental disorder (hyperactive) and also had speech delay. The data were in the form of phonemes, words, phrase, clause, and sentences used in their utterances. The procedures of collecting data in this study were direct observation of the events or objects, interviews with those involved in the events, and the documentation.

## 4 FINDINGS AND DISCUSSION

### 4.1 Findings

The researchers classified and described the data obtained through observation and interview directly with children with ASD at Yayasan Tali Kasih school in Medan. From the data that have been analyzed, there are only four kinds of disorder discovered, they are phonological, morphological, syntactical disorder, and semantic disorders.

### 4.1.1 Phonological Disorder

Phonological disorder is one of language problems which are found in autistic children speech. It occurs when autistic children's speech have phonological errors in the case of substitution, omission, and addition of some phoneme in their words. These three processes that occur in the speech of the autistic children prove that the normal pronunciation and the phonemes they expressed are not the same. Of course, this also proves that the development of children with autism in language is very slow if we consider their age. They still have difficulty in mentioning some phonemes such as /r/, /s/, /k/, /g/, /m/, /t/, etc. Strangely, sometimes, processes like substitution, omission and addition do not occur in every word. But, sometimes they can mention the phonemes correctly. It is also a proof that they have learned a lot and this is the good impact of educating autistic children. This phenomenon could be seen in the conversation discourse (in Bahasa) below:

#### Data 1, with Lv.

Rch : Lv, *kakak itu sedang apa?* (Lv, what is she doing?)  
 Lv : **Memulis**  
 Rch : *Bagus. Lv pintar.* (Good. Lv is clever)

Based on data 1, Lv said *memulis* which should be pronounced **menulis**. In the word *memulis* denotes the formation of a prefix *men-* *tulis*, but it also denotes the substitution of phoneme /n/ spoken becomes phoneme /m/.

### 4.1.2 Morphological Disorder

The process of morphology is the process of word formation. Most words are formed by combining different components. The most basic word forming process is through affixes and it is part of morphological process. Based on the analysis of, it shows that both autistic children still have difficulty in saying the formation of affixation, especially the form of prefix. So far, there is no interruption in the suffix formation. But, from the data, it was proven that both autistic children understand what the teacher and researcher have said to them and they responded it. The example can be observed as the following interaction.

#### Data 2, with Joy.

Tch : *Halo Joy! Apa kabar?* (Hello, Joy. How are you?)  
 Joy : *Halo! Baik, bu.* (Hello, I am fine, mam.)

- Tch : *Joy tau tidak, kaki digunakan untuk apa?*  
(Joy, do you know the function of feet?)
- Joy : ***Kaki jala.***
- Tch : *Coba katakan sekali lagi?* (repeat once again?)
- Joy : ***Kaki jalan.***
- Tch : *Iya pintar. Coba ikuti kakak, sebutkan berjalan.* (Yes, good. Try to follow me, say 'walk')
- Ag : ***Bejala.***
- Tch : *Ya bagus.* (Yes, good)

In data 2, the first answer given by Joy did not succeed in forming a prefix *ber-* in the word *berjalan* but simply pronounced *jala*. After the therapist performed the repetition, Joy's pronunciation changed, beginning to show that Joy could form an affix on the word *jala* to *jalan* then became *bejala*. Although there is still omission of phoneme /r/ and phoneme /n/ in the word *berjalan*, the formation of prefix *ber-n* in Joy's language formed by parroting way of speech. Children with autism have a difficulty in this affixation. The ability of morphological process formation in children aged 8-13 years of autism is very far behind than the ability of morphological process formation in normal children aged 8-13 years. The formation of prefixes, suffixes, and infixes has been perfectly mastered by normal children aged 8-13 years, while not yet perfectly mastered in children aged 8-13 autism.

#### 4.1.3 Syntactical Disorder

This disorder can be found when autistic children utter a sentence with the wrong structure and pattern. They may spontaneously tell a few sentences with incorrect pattern so that the sentences become less effective. They also often master the language of others and repeat it. This kind of thing is called *Echolalia*.

##### Data 3, with Lv.

- Rch : *Tadi diantar Ayah? Naik apa?* (You were brought here by your father? By what?)
- Lv : ***Diantar Ayah motor.***
- Rch : *Oh, diantar Ayah naik motor ya?* (Oh, you were taken a ride by motorcycle, right?)
- Lv : ***Diantar motor sama Ayah.***

From the data 3, it can be observed that Lv has shown *Echolalia* phenomenon. There is a repetition pronounced by him and the structure of the sentence also changed even though the point that he wants to delivered is same. His intention was that he was

escorted by his father to school by motorcycle. But because of his disability, it is rather difficult to say the words with the correct pattern and he had to form repetition. The analyses also elucidates that both children had syntactic disorder. In their age, they should be able to tell a story with a long sentence, not with basic sentences anymore. People around them will only understand those words because they have good semantic and pragmatic skills.

#### 4.1.4 Semantic Disorder

Talking about semantic disorder in autism, (Lord and Paul, 1997) describes that children suffering autism get problems in the meaning comprehension of what is said to them. This phenomenon is portrayed in the data below.

##### Data 4, with Joy.

- Rch : *Pagi, Joy! Ayah ada dimana?* (Good morning, Joy. Where is your father?)
- Joy : *Di rumah kak.* (At home, sister)
- Rch : *Oh, Papa di rumah ya?* (oh, is your father at home)
- Joy : ***(silent and felt dizzy)***
- Rch : *Papa ada dimana, Joy?* (where is father, Joy?)
- Joy : ***(silent and did not answer then he started scratching the paper on the table)***

From data above, Joy did not have ability to understand the meaning of what was said to her. The researcher asked "where is her father?" by using word *ayah* (father), she could answer it. But when the researcher changed the word *ayah* (father) with *papa* (father), she did not understand what the researcher said to her however she was busy scratching paper on her desk. Joy might have difficulty with the meaning of utterance that she heard "*papa*". She did not understand that the meaning of *ayah* and *papa* is same. At the age of 12, she doesn't understand the meaning of that word and it proves that Joy suffers semantic disorder.

## 4.2 Discussion

For normal children, the aspect of language such as phonology, morphology, syntax and semantics might develop well and so might the comprehension. But, it is different from children with ASD. Their language and communication are disordered. Based on the data analysis, Lv and Joy, who suffer ASD,

have difficulty in both language production and language comprehension. They have language problems with four aspect of linguistics; phonological, morphological, syntactical, and semantic disorders. It shows that the symptoms or characteristics of expressive and receptive are exist on them. Expressive language disorder deals with spoken language usage. Meanwhile, receptive language disorder deals a lot with how and what people said and comprehended of spoken language. The researcher found that from 20 data, 16 data are related to expressive language disorder and 4 data are related to the receptive language disorder. Both language disorders are related other, but the dominant type is expressive language disorder.

## 5 CONCLUSION AND SUGGESTION

After analyzing the data, it leads to the conclusion that children suffering ASD experienced language disorder related to four aspects of language, namely phonological, morphological, syntactical, and semantic disorders. They have impairment in producing words and utterances and difficulty in understanding the meaning of word spoken by someone. Furthermore, they have expressive and receptive language development disorder, and those are included into mixed expressive-receptive language disorder.

It is also recommended for parents help the child's language development in order to have good language skills by building an intensive communication. For autistic school teachers/therapist, it is advisable to help increase the child's mastery of the various forms of vocabulary, understand the concept and the tough personality of autistic children. Then, the other researchers who want to conduct similar research about language disorder can examine the other areas such as language acquisition and production.

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## REFERENCES

- Aitchison, J 1998, *The articulate mammal: an introduction to psycholinguistics*, Routledge, London.
- American Psychological Association 1994, *Diagnostic and statistical manual of mental disorders*, 4th edn, APA, Washington DC.
- Belkadi, A 2006, 'Language impairments in autism: evidence against mind-blindness', *SOAS Working Papers in Linguistics*, vol. 14, no. 1, pp. 3-13, viewed 20 July 2018.
- Field, J 2003, *Psycholinguistics: a resource book for students*, Routledge, New York.
- Filipek, PA, Accardo, PJ, Baranek, GT, Cook Jr, EH, Dawson, G, Gordon, B et al. 1999, 'The screening and diagnosis of autistic spectrum disorders', *Journal of Autism and Developmental Disorders*, vol. 29, no. 6, pp. 439-84, viewed 20 July 2018.
- Hanafiah, R 2016, *Bahasa dan politik: realitas pada parlok Aceh*, USU Press, Medan.
- Hatch, EM 1983, *Psycholinguistics: a second language perspective*, Newbury House, California.
- Indah, NR & Abdurrahman 2008, *Psikolinguistik: konsep dan isu umum*, UIN-Malang Press, Malang.
- Kuo, LJ 2017, 'Language and literacy development among children with autism spectrum disorder', *Journal of Childhood and Developmental Disorder*, vol. 3, no. 3, pp. 1-4, viewed 20 July 2018, doi: 10.4172/2472-1786.100052.
- Lado, R 1976, *Language teaching: a scientific approach*, Grow Hill Publishing Company, New Delhi.
- Leonard, LB & Deevy, P 2004, 'Lexical deficits in specific language impairment' in L Verhoeven & van H Balkom, *Classification of developmental language disorders: theoretical issues and clinical implication*, Lawrence Erlbaum Associates, New Jersey, pp. 209-233.
- Loucas, T, Charman, T, Pickles, A, Simonoff, E, Chandler, S, Meldrum D et al 2008, 'Autistic symptomatology and language ability in autism spectrum disorder and specific language impairment', *Journal of Child Psychology and Psychiatry*, vol. 49, no. 11, pp. 1184-92, viewed 20 July 2018, doi: 10.1111/j.1469-7610.2008.01951.x.
- Purwaningsih 2011, *A psycholinguistic study and receptive language disorder of an asperger syndrome man in Adam movie*, thesis, Malang, Maulana Malik Ibrahim Islamic State University of Malang, viewed 19 July 2018.
- Rao, PR 2007, 'Health literacy: the cornerstone of patient safety', *The ASHA Leader*, 1 May, p. 8-9, viewed 19 July 2018, The ASHA Leader database.
- Rice, ML, Warren, SF & Betz, SK 2005, 'Language symptoms of developmental language disorders: An overview of autism, Down syndrome, fragile X,

- specific language impairment, and Williams syndrome', *Applied Psycholinguistics*, vol. 26, no. 1, pp. 7-27, viewed 21 July 2018, doi: 10.1017/S0142716405050034.
- Rofi, SF 2011, *A psycholinguistic study on the language produced by an autistic character in dear John movie*, thesis, Malang, Maulana Malik Ibrahim Islamic State University of Malang, viewed 21 July 2018.
- Simanjuntak, M 2007, *Pengantar neuropsikolinguistik; menelusuri bahasa, pemerolehan bahasa dan hubungan bahasa dengan otak*, Perpustakaan Nasional Republik Indonesia, Medan.
- Steinberg, DD 2001, *Psycholinguistics: language, mind and world*, Linguistics Society of America, New York.
- Suherman 2016, *Language disorder of main character in the movie "my name is khan"*, thesis, Makassar, State Islamic University of Alauddin Makassar, viewed 22 July 2018.
- Tager-Flusberg, H, Calkins, S, Nolin, T, Baumberger, T, Anderson, M & Chadwick-Dias, A 1990, 'A longitudinal study of language acquisition in autistic and Down syndrome children', *Journal of Autism and Developmental Disorders*, vol. 20, no. 1, pp. 1-21, viewed 22 July 2018.
- Van Dulm, O 2002, 'A psycholinguistic approach to the classification, evaluation, and remediation of language disorder', *Stellenbosch Papers in Linguistics*, vol. 34, no. 1, pp. 111-131, viewed 21 July 2018, doi: 10.5774/34-0-32.
- Volkmar, FR 2005, *Handbook of autism and pervasive developmental disorders, diagnosis, development, neurobiology, and behavior*, University of California, California.
- Wicaksono, CA 2013, *Pemerolehan kalimat pada anak autis slow learner di SDN Klampis Ngasem I no 246 surabaya: suatu studi kasus*, thesis, Airlangga University, Surabaya, viewed 22 July 2018.

