A PSYCHOLINGUISTIC STUDY ON EXPRESSIVE LANGUAGE DISORDER OF THE AUTISTIC CHILD IN *MERCURY RISING* FILM

THESIS

BY
ULIN NAFIAH
NIM 03320058

ENGLISH LETTERS AND LANGUAGE DEPARTMENT
FACULTY OF HUMANITIES AND CULTURE
STATE ISLAMIC UNIVERSITY OF MALANG
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A PSYCHOLINGUISTIC STUDY ON EXPRESSIVE LANGUAGE DISORDER OF THE AUTISTIC CHILD IN *MERCURY RISING* FILM

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By
Ulin Nafiah
NIM 03320058

ENGLISH LETTERS AND LANGUAGE DEPARTMENT
FACULTY OF HUMANITIES AND CULTURE
THE STATE ISLAMIC UNIVERSITY OF MALANG
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APPROVAL SHEET

This is to certify that the thesis entitled **"A Psycholinguistic Study on Expressive Language Disorder of the Autistic Child in *Mercury Rising* Film"** Written by Ulin Nafiah has been approved by the thesis advisor, for further approval by the Board of Examiners.

Malang, 19 January 2008

Approved by Advisor,	Acknowledged by Head of English Letters and Language Department,
Hj. Rohmani Nur Indah, M. Pd. NIP. I50 327 258	Dra. Hj. Syafiyah, MA. NIP. 150 246 406

Dean,
Faculty of Humanities and Culture

Drs. H. Dimjati Ahmadin, M. Pd.
NIP. 150 035 072

LEGITIMATION SHEET

This is to certify that the *Sarjana's* thesis of Ulin Nafiah entitled "A Psycholinguistic Study on Expressive Language Disorder of the Autistic Child in *Mercury Rising* Film" has been approved by the Board of Examiners as the requirement for the degree of *Sarjana Humaniora* (*S1*) in English Letters and Language Department, Faculty of Humanities and Culture, State Islamic University of Malang.

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The Board of Examiners		Signatures
1. Drs. H. Nur Salam, M. Pd	(Main Examiner)	_____
2. Galuh Nur Rohmah, M. Pd, M. Ed	(Chair of Examiner)	_____
3. Hj. Rohmani Nur Indah, M. Pd	(Secretary/Advisor)	_____

Approved by
Dean, Faculty of Humanities and Culture

Drs. H. Dimjati Ahmadin, M. Pd
NIP. 150 035 072

MOTTO

"God will not change your fate unless you make every endeavor to change it"

"Hard work is the accumulation of easy things you didn't do when you should have"

DEDICATION

This thesis is proudly dedicated to:

My Parents, Bapak Achmad Makmur & Ibu Sumariah

Thanks for their pure love, solemn prayers,

And sacrifices

My dear husband, Ardianto Azis (Ka' Ardy)

Thanks for his endless love and his big support (I realize that the biggest thing is having someone like him, he is the valuable thing in my life)

My sexy Sister, Faris Khamdani

My annoying brother, Achmad Burhanuddin Effendi (Ndie Bo)

Thanks for carrying, supporting, and praying me

Into the better way

For the invisible child, my baby-to-be (I dedicate this thesis for him/her, my sweetheart)

And also for my friends (Beruang Kutub, Anak Gajah., and Mbak Sapi) thanks for being my true friends

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All of our praise is for Allah SWT, the Most Gracious and the Merciful, the one Who always guides and blesses us. Therefore, I could finish my thesis entitled "A Psycholinguistic Study on Expressive Language Disorder of the Autistic Child in *Mercury Rising* Film" well. Shalawat and Salam are also delivered to our prophet Muhammad SAW, who has been a good model in the overall of our life.

I realize that my thesis compilation will never get success without any interference from other people. Therefore, firstly, I would like to give my sincere gratitude to Prof. Dr. H. Imam Suprayogo, the Rector of UIN Malang; Drs. H. Dimjati Ahmadin, M. Pd., the Dean of Humanities and Culture Faculty; and Dra. Hj. Syafiyah, MA., the Head of English Letters and Language Department, and also my advisor Hj. Rohmani Nur Indah, M. Pd. Thanks for the chance given to me to conduct my thesis.

Secondly, I would like to express my big thanks to all of English Letters and Language's lecturers for being so kind, patient, and generous in introducing and leading me to the world of Linguistics, Literature, and anything about language with invaluable knowledge inputs.

Finally, I truly realize that this thesis still needs the constructive criticism and suggestion from the readers in order to make it perfect and hopefully it can be useful for the readers, especially for the English Letters and Language students.

Malang, January 2008

The Researcher

ABSTRACT

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Key words: A psycholinguistic study, expressive language disorder, autistic child

No body is perfect. Although God has created human being as perfect as possible, moreover people are created better than other creatures. However, God still gives sufficiency and frailty in every person. One of the frailties also refers to human's speech system which is categorized as language disorder. Language disorder refers to a language disability which causes the damage of understanding and the expression of language, such as autism.

Autism is a brain development disorder that impairs social interaction and communication, and causes restricted and repetitive behavior, all starting before a child is three years old. Autism affects many parts of the brain; how this occurs is poorly understood. Children with autism have social impairments and often lack the intuition about others that many people take for granted. Most children with autism do not develop language as early as others, and some never develop language.

This research uses descriptive qualitative method that emphasizes the specific case—language disorder by using psycholinguistic approaches to analyze expressive language disorder of Simon Lynch as an autistic child in *Mercury Rising* film. Therefore, it is interesting thing observing him in order to find out the kind of expressive language disorder produced by him and describe it. The data are colleted by observing his utterances in *Mercury Rising* film.

The results of this study show that Simon Lynch's utterances have some kinds of speech and language disorder namely phonological disorder (substitution, deletion, assimilation, and addition), articulation disorder (from the places of articulation and the manner of articulation), voice disorder (talking too long or too much, and unnatural pitch/intonation, improper stress, grumbling unclear word), and also language disabilities as an autistic child (repetitive and stereotyped utterance, robotic sounding speech, and ritualistic question and answer). The result also shows that voice disorder is mostly found and language disability as an autistic child seldom occurs.

Finally, by analyzing the expressive language disorder of the autistic child of native speaker, it is expected to know about the kinds of language disorders especially expressive language disorder. Moreover, this study can lead the next researchers to conduct a research on the native language disorder of woman or children with autism in the purpose of enriching the understanding of psycholinguistics.

TABLE OF CONTENT

LIST OF TABLE

LIST OF FIGURE

Figure Page

CHAPTER I

INTRODUCTION

This chapter presents background of the study, problems of the study, objectives of the study, significance of the study, scope and limitation of the study, and definition of the key terms.

1.1 Background of the Study

وَلَا تَتَمَنَّوْا۟ مَا فَضَّلَ ٱللَّهُ بِهِۦ بَعْضَكُمْ عَلَىٰ بَعْضٍ ۚ لِّلرِّجَالِ نَصِيبٌ مِّمَّا ٱكْتَسَبُوا۟ ۖ وَلِلنِّسَآءِ نَصِيبٌ مِّمَّا ٱكْتَسَبْنَ ۚ وَسْـَٔلُوا۟ ٱللَّهَ مِن فَضْلِهِۦٓ ۚ إِنَّ ٱللَّهَ كَانَ بِكُلِّ شَىْءٍ عَلِيمًا ﴿٣٢﴾

"*And do not covet that by which Allah has made some of you excel others. Men shall have a benefit of what they earn and women shall have a benefit of what they earn; and ask Allah of His Grace; verily Allah knows all things*". *(Q.S. An-Nisa': 32)*

Based on the verse above, Allah has His own planning in choosing the good one in our life. He gives us different mercy in order we respect each other's mercy. There is a great secret on the different mercy. For instance what happens to those who have brain damage named autism. Autism will cause language disorder which can be recovered.

Autism itself has well-known since 60 years ago as disorder in growing children. In Indonesia, this syndrome was well-known in the latest three years.

Based on Indonesian Autistic institute, there are 7000 children affected autism in every a year. Carrol (1985: 391) noted that there are approximately four males for every one female of autistic child. It means that the disorder is more common in males; for every female with autism, one to four males are affected. In addition, the State's Department of Developmental Services of USA reported that the number of children with "full spectrum", or profound, autism have increased by 237 percent, to 10,306 in 1998 from 2,778, and it continued to rise to 18,460 cases of July 2002. These numbers are surprising (Blakeslee, 2002).

Nowadays, the word autism is not strange anymore. It was first used by the American psychiatrist Leo Kanner in the 1940s to describe children who appeared to be excessively withdrawn and self-preoccupied. It comes from the Greek word meaning "self", to describe the fact that the children seemed to lack interest in other people. It can also be defined as a neurodevelopmental disorder that manifests itself in markedly abnormal social interaction, communication ability, patterns of interest, and patterns of behavior (Britannica Encyclopedia-Digital, 2003).

Carrol (cited in Rutter, 1971) gave a definition of autism based on four characteristics, they are; (1) lack of responsiveness to humans, including avoidance of eye contact; (2) obsession with sameness in the environmental characterized by ritualized behavior the child's surroundings or daily routines;

(3) language disabilities, including abnormally slow development and imitative speech; and (4) onset before 30 months.

Autism is most commonly diagnosed when children are very young. In fact, a child must demonstrate traits of the disorder before he or she is three years old in order for the diagnosis to make. In some cases, children demonstrate autistic behaviors from the time they are infants; parents sometimes report that they have always observed that their child is a little "different". In other individuals, early development seems to proceed normally for a period of time, but then becomes more noticeably different. As children grow older, they sometimes improve in some areas- becoming more competent in social interactions, for instance. Language skills also tend to improve somewhat, and communication can be enhanced (www.autisminfo.com, accessed at 14 April 2007).

Autism is diagnosed by a variety of symptoms that can occur in different combinations and range from mild to severe. However, diagnosis requires that all cases have symptoms from each of these three categories: 1) abnormal social interaction, 2) abnormal communication, 3) restricted and repetitive interests and behaviors (Jacobs, 2005: 941).

Abnormal social interaction in persons with autism is reflected in such behaviors as failure to seek comfort from a parent and lack of eye contact. Children with autism may not respond when their name is called or play with other children. They do not understand the social behaviors necessary to make friends or to work with teachers. This lack of social contact isolates people

with the disorder from many experiences by which most people come to understand the world.

Most children with autism do not develop language as early as others, and some never develop language. Problem with communication extend to gestures and facial expression, as well as language. Affected children with fluent speech may talk endlessly about a single subject or use words in a way that is abnormally precise and literal. Others exhibit a speech pattern called echolalia, when individuals with autism repeat words and phrases that are spoken to them, either immediately (immediate echolalia) or after a delay of some length (delayed echolalia). Echolalia is commonly demonstrated by people with autism- some estimates range up to 75% of those individuals with autism who have verbal language (www.autisminfo.com, accessed at 14 April 2007).

Another characteristic feature of language in autism is pronoun reversal. The concept of pronoun reversal refers to the tendency of people with autism to confuse first and second person pronouns in speech. For example, an individual might use “you” to refer to him or herself, and use “I’ to refer to his or her listener. Just like echolalia, there have been some controversies over what pronoun reversal signifies and just how significant it is. It has been suggested to be a sign that children with autism fail to identify themselves as separate from the person with whom they are speaking (Encarta Encyclopedia-Digital, 2002).

The autistic children have problem in language, social interactions, and communication (Carrol, 1985: 390). It stands to reason that the autistic children will suffer major problems in daily conversation, since it is the area of language competence which is most closely related to social function. The language of autistic children can be extremely embarrassing, upsetting, confusing, and frustrating. Their language develops slowly, if at all. Some autistic children remain totally silent, while others merely repeat words they hear or communicate by gesture. At best, the attention span of autistic children is very short. They have little or no interest in making friends. They smile rarely, if ever, and will avoid making eye contact. Accordingly, those difficulties need some regards to apply great sensitivity in guiding the young person with speech pathology (Britannica Encyclopedia-Digital, 2003).

Basically, the words of autistic children are clear. They have advance in memorizing, imitating thing, what they heard and saw and rarely respectful for answering questions, thought the concept of their utterance meaning is inappropriate with the social context of language event. Autistic children have some problems in acquiring a good speech process for their social interaction.

These are some related researches which may have similar discussion with this research. However, some of them discussed about autistic children and language disorder. For example, Mukminah (2007) focused on speech disorder of cerebal palsic man in "Door to Door" film. She observed the utterances of Bill Porter in that film. Furthermore, a study conducted by Woodward (2006), *Padded Room at Heart of Autism Controversy* gave several solutions for some

parents with autistic children how to treat some therapies to their autistic children. Third research was done by Grant (2006), who documented her research in the form of article under the title *Some Autistic Children are not Ill, They are just Badly Behaved.* Itqiana (2006) has investigated a stuttered man aged 26. She discussed about language production, language disorders, speech, speech disorders, and stuttering. Last research conducted by Fauziyah (2003) focused on a pragmatic study on speech acts used by autistic children. She has investigated speech acts used by some patients of autistic therapy of RSI- Dinoyo- Malang in the intermediate and advance level.

Based on the explanation above, the research tends to investigate the expressive language disorder of the autistic child in *Mercury Rising* film. This study is interested in observing Simon Lynch's character as child with autism. The reason to choose this film is that because *Mercury Rising* is a heartwarming film about autism. This film is appropriate with the discussion about expressive language disorder in autistic child. Moreover, Simon Lynch who plays as an autistic child in *Mercury Rising* film has unique verbal communication. Basically, the speech of Simon Lynch is clear and articulate but some words or utterances he produced consist of expressive language disorder.

This film tells about Simon Lynch (Miko Hughes) is a nine year old autistic child who loves puzzles. When he breaks a code that the Government put into a magazine to test its strength he becomes a target and his parents are murdered by hit man from the NSA. Art Jeffries (Bruce Willis) is assigned to

the case when the boy goes missing and easily finds him; however, Jeffries soon realizes that this is not a simple case and that both he and the boy are in great danger as NSA Colonel Kudrow (Alec Baldwin) tries to protect his code. This film is based on novel written by Ryne Douglas Pearson and directed by Harold Becker. This film was launched on 20 June 1998 and got two awards (www.imdb.com/title/tt0120749/, accessed at 14 April 2007).

Mercury Rising reaped some comments from the movie goers. One of them was Pamelot, the mother of an autistic child. She wrote a comment on this film under title *Mercury Rising--What an Ironic Title for an Autism Movie* on June 21, 2005. As the mother of an autistic child, she was so curious to know more about this movie when she found it while channel surfing. According to Pamelot, the writers of this film, apparently, also did some research on the condition. Her other comment is that the producers had the foresight to name their movie about an autistic boy "Mercury Rising" (Pamelot: 2005).

Based on the significant information concerning autism as explained above, therefore this study focuses on the expressive language disorder of Simon Lynch as an autistic child in *Mercury rising* film.

1.2 Problems of the Study

Based on the background of the study above, the research investigates the following problems:

1. What kinds of expressive language disorder are produced by Simon Lynch as an autistic child in *Mercury Rising* film?
2. How is the expressive language disorder produced by Simon Lynch as an autistic child in *Mercury Rising* film?

1.3 Objectives of the Study

Concerning to the problems of the study mentioned above, the objectives of the study are:

1. To get the description of kinds of the expressive language disorder of Simon Lynch as the autistic child in *Mercury Rising* film.
2. To find out the way Simon Lynch as an autistic child in *Mercury Rising* film produces the expressive language disorder.

1.4 Significance of the Study

There are two kinds of significance of the study, they are: theoretical significance and practical significance.

1. Theoretical significance

In theoretical significance, it is expected that this study can provide important applications of psycholinguistic principles and offer the assessment of general principles of psycholinguistics. To be specific, this study will benefit those who want to compare the expressive language disorder of the autistic child. Therefore, English Letters and Language Department students can make use of this research as a starting point.

2. Practical significance

Practically, the result of this study can enrich information for the people who concern with language disorder especially in autism. Besides, it is expected that this study can help next researchers when they are going to conduct research in this area.

1.5 Scope and Limitation of the Study

In order to keep the study from being very general, this study sets some scopes as follows. First, the study focuses on expressive language disorder. Second, the scope of this study is autism especially autism as a spectrum disorder in children. It is because there are many children who are affected autism.

Since the study was limited to one person, Simon Lynch's character in *Mercury Rising* film, the research only investigates the expressive language disorder of Simon Lynch in *Mercury Rising* film. The conclusion drawn is particularly to answer the correct questions stated in the problems of the study based on some theories that deal with this study which will be presented on the next chapter.

1.6 Definition of the Key Terms

The title of this thesis is "A Psycholinguistic Study on Expressive Language Disorder of the Autistic Child in *Mercury Rising* Film". In order to avoid misunderstanding in interpreting the terms used in this study, this study gives some definitions related to the key terms:

1. A psycholinguistic study:

The study of the psychological and neurobiological factors that enable humans to acquire, to use, and to understand language.

2. Expressive language disorder:

   Any of a number of problems with verbal communication and the ability to produce an utterance to make communication with others. The disorder may involve the difficulty of producing the word and the quality of producing speech.

3. Autism (N), Autistic (adj.):

   A disorder in development that usually begins before the age of four, it is caused by brain damage, especially in the left side of the head, which prevents the sufferer to make social interaction with other people.

5. Mercury Rising:

   It is one of film's titles which was produced by Universal Picture on 20 June 1998. This film was based on the novel "Simple Simon" written by Ryne Douglas Pearson and directed by Harold Becker.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

This chapter reviews the underlying theories of the study. The research takes some theories that deal with this study. They are language disorder, the relationship between language and cognition, autism; characteristics of autism, language in autistic children, expressive language disorder in autistic children, Mercury Rising film, and previous studies.

2.1 Language Disorder

More than one million of the students served in the public schools' special education programs in the 1997-98 school years were categorized as having a speech or language impairment. This estimate does not include children who have speech or language problems secondary to other conditions such as deafness. Language disorders may be related to other disabilities such as mental retardation, autism, or cerebral palsy. It is estimated that communication disorders (including speech, language, and hearing disorders) affect one of every 10 people in the United States.

As defined by the American Speech-Language-Hearing Association:

> A language disorder is the impairment of deviant development of comprehension and/or use of spoken, written, and/or other symbol system. The disorder may involve (1) the form of language (phonologic, morphologic, and syntactic systems), (2) the content of language (semantic

system), and/or (3) the function of language in communication (pragmatic system) in any combination (American Speech and Hearing Association, 1982).

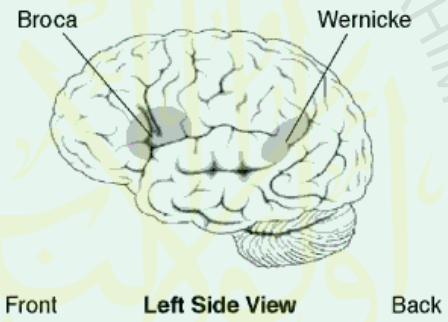
Speech and language disorders refer to problems in communication and related areas such as oral motor function. These delays and disorders range from simple sound substitutions to the inability to understand or use language or use the oral-motor mechanism for functional speech and feeding. Some causes of speech and language disorders include hearing loss, neurological disorders, brain injury, mental retardation, drug abuse, physical impairments such as cleft lip or palate, and vocal abuse or misuse (http://www.kidsource.com/ASHA/child_language.html, accessed on 14 April 2007).

Language disorders can be developmental (i.e. present from early childhood) or they can be acquired as the result of surgery, a stroke, an accident or old age. In certain cases, this had a marked effect upon their ability to communicate in speech or in writing (field, 2003: 53).

In 1863, a French surgeon, Paul Broca, described the severe language impairment of some twenty patients. In nineteen cases, the problems with language appeared to have resulted from a brain lesion on the left side of the head, just in front of the ear and slightly below the top of it (technically, the lower part of the left frontal lobe). Later, in 1874, a German doctor, Carl Wernicke, demonstrated a language deficit associated with damage to a different area. This one was just behind and above the left ear (the posterior part of the temporal lobe).

The two areas identified by these researchers have become known, respectively, as **Broca's area** and **Wernicke's area**, and seem to be especially closely associated with the processing of language by the brain. Damage to either will often (but not always) lead to a condition known as aphasia, in which patients lose some of their powers of speech. The type of language impairment varies considerably according to which of the two areas is damaged (Field, 2003: 53) as shown in figure 2.1. 1

Figure 2.1.1 Broca's area and Wernicke's are



Source: (www.nidcd.nih.gov/health/voice/aphasia.asp, accessed on 14 June 2007)

Different symptoms are associated with Broca's and with Wernicke's aphasia. However, it should be stressed that the symptoms vary greatly from patient to patient. See table 2.1.1

Table 2.1.1 A Comparison of Broca's and Wernicke's Aphasia

Broca's Aphasia	Wernicke's Aphasia
Effortful speech; much pausing	Effortless speech—fluent, rapid
Almost no syntax	Syntactically well-structured, complex
Few function words or affixes	Function words, affixes
Mainly concrete nouns	Many general nouns (e.g. *thing*, *person*) and verbs (e.g. *do*, *go*)

Comprehension often good; but may use positional and semantic cues rather than fully understanding meaning	Comprehension often severely impaired

Source: Field (2003: 55)

For about 150 years it has been known that damage to Broca's area in the left frontal lobe causes disfluent and anagrammatic speech, whereas damage to Wernicke's area in the left temporal lobe causes impairment of comprehension coupled with fluent but defective speech (Tailor, 1990: 392).

The symmetry reversal centers around a region of the brain called Broca's area, which handles language. Damage to this area may make it difficult to understand or speak in complex sentences. The structural differences may explain why so many autistic boys have language difficulties (Hitti, 2004).

2.2 The Relationship between Language and Cognition

It is remarkable fact that nearly all human beings grow up to achieve full competence in their native tongue, regardless of wide variations in their intelligence and environment. This has suggested to some commentators that language may develop independently of general cognition. Confusingly, some of the evidence of language acquired "exceptional circumstances" appears to contradict this hypothesis, while some appears to support it (Field, 2003:44).

Autism represents a combination of cognitive and social impairment. Child sufferers may be mute until the age of five, or may do little more than echo the words that adults say to them. Underlying the condition appears to be a failure to relate to others, and thus to appreciate the value of communication.

One theory suggests that autistic children lack a theory of mind – the ability to see the word from the point of view of another person. All aspects of communication seem to suffer in autistic individuals, with the possible exception of phonology. The development of language skills is not just delayed but deviant as well (Field, 2003: 44).

2.3 Autism

Not until the middle of the twentieth century was there a name for a disorder that now appears to affect an estimated 3-4 every 1,000 children ages 3-10, a disorder that causes disruption in families and unfulfilled lives for many children. The disorder was called autism.

Autism is a serious medical disorder that appears in young children and persists throughout life. A disorder of early development that causes severe problems in thinking, communicating with others, and feeling a part of the outside world. Taken from the Greek word “autos” meaning “self”, autism prevents children from developing normal social relationships, even with their parents (Britannica Encyclopedia-Digital, 2003).

The term autism was used by American psychiatrist Leo Kanner in the 1940s to describe children who appeared to be excessively withdrawn and self-preoccupied. In US, autism and related disorders, Asperger syndrome and pervasive developmental disorder, occur in 2 to 6 of every 1,000 births. Boys are more commonly affected than girls. Although autism is about 3 to 4 times more common in boys, girls with the disorder tend to have more severe

symptoms and greater cognitive impairment. Diagnosis is based on a list of psychiatric criteria, and a series of standardized clinical tests may be used (Jacobs, 2005: 941).

The autism spectrum disorders can often be reliably detected by the age of 3 years, and in some cases as early as 18 months. This research suggests that many children eventually may be accurately identified by the age of 1 year or even younger. The appearance of any of the warning signs of autism spectrum disorder is reason to have a child evaluated by a professional specializing in these disorders (www.nichd.nih.gov/publications/pubskey.cfm?from=autism, accessed at 14 June 2007).

The number of autistic children ranges from 40 in 10,000 children born (Handojo, 2003: 6). In Indonesia, recently, children who are affected autism reach 400,000 every 200 millions people. These numbers are surprising (Sutadi, 1997: 13).

In autism, there are two combinations between cognitive and social deviations. Children with autism can become deaf even dumb until 5 years old, or they only imitate some words from others. This matter indicates that autistic children have limited views, it means that they are difficult to know 'world" from other's point of view. All communication aspects are difficult to be reached by autistic children, except phonological aspect. Based on phonological aspect, their articulation is clear enough although often appears some mistakes in mentioning objects. Their intonation is rather slow and smooth. Syntactical ability is very languid because often appears imitative

sentences, repetitive sentence which is not relevant to context. Also, their ability to comprehend semantics is weak, such as differentiate between "the girl feeds the baby" and "the baby feeds the girl" (Carrol, 1985: 393).

Children with autism either respond to their social environment or have obsession to similarity in their environment. It means that they are so clumsy with their daily routine, they will be angry if they find some changes in their habit.

Some people with autism have mental retardation, but autism occurs among individuals of all levels of intelligence. Children with autism tend to have brains that are somewhat larger than normal, while children with mental retardation, alone, tend to have small brains. This suggests that the causes of the two conditions are different, even though they sometimes occur together (Jacobs, 2005: 942).

Another source defined in Gatra Magazine said that brain of the autistic children is more active than normal children. Melly Budiman is one of the psychiatry at doctor faculty of Indonesia University states in Indonesian language as follow:

> "Sel-sel saraf penderita autis memang cukup aktif, mereka tidak mengalami pemangkasan. Bukan berarti otak anak autis lebih besar daripada otak anak normal. Anak normal selalu mengalami pemangkasan yang bertujuan untuk mendapatkan sel-sel bagus".

Ika Widyawati, a medical expert of Indonesia University, states that we can identify autistic children from the shape of their mouth. They are lack of ability to see, feel, and smell. They also have abnormally bodily movements.

“Sometimes they are flapping their arms, and seeing an object very near even glance a bit” said Widyawati (Gatra Magazine, 2003).

The neurophysiologic findings suggest that there may be differential disturbance of left-hemisphere brain functions in autistic children and there is some evidences that signing may be processed in right hemisphere brain. Sign language is also more iconic than speech; autistic children learn iconic signs faster and retain them more readily than non-iconic ones. The most interesting aspect of using the sign has been improved in vocalization and the ability to use words.

Autism is diagnosed by a variety of symptoms that can occur in different combinations and range from mild to severe. However, diagnosis requires that all cases have symptoms from each of these three categories: 1) abnormal social interaction, 2) abnormal communication, 3) restricted and repetitive interests and behaviors (Jacobs, 2005: 941).

Abnormal social interaction in persons with autism is reflected in such behaviors as failure to seek comfort from a parent and lack of eye contact. Children with autism may not respond when their name is called or play with other children. They do not understand the social behaviors necessary to make friends or work with teachers. This lack of social contact isolates people with the disorder from many experiences by which most people come to understand the world.

In Abnormal communication, most children with autism do not develop language as early as others, and some never develop language. Problem with

communication extend to gestures and facial expression, as well as language. Affected children with fluent speech may talk endlessly about a single subject or use words in a way that is abnormally precise and literal. Others exhibit a speech pattern called echolalia, where they repeat what is said to them instead of giving their own response.

2.3.1 Characteristics of autism

Autism is often referred to as a spectrum disorder - that is, a disorder in which symptoms can occur in any combination and with varying degrees of severity. Symptoms of autism usually begin during infancy. Autistic infants may stiffen or cuddling up to them. Autistic infants often show little or no interest in other people or lack of typical social behaviors. For example, they may not smile at their mother's voice or make eye-contact with caregivers. Autistic children fail to develop normal relationships with their parents, brothers or sisters, and other children. Often they see unaware of the needs and feelings of other people, and may not respond if another person is hurt or in distress. They also fail to make friends (Hadis, 2005: 46-47).

Autistic children also have difficulties with language. Even some of them never learn to speak or develop very limited speech. An autistic child may say "you" when he means "I" and produce incorrectly formed sentences. Autistic children may also demonstrate echolalia, mechanically repeating words or phrases that other people say (Encarta Encyclopedia-Digital, 2002).

Socially, children with autism may be impaired in producing and interpreting non-verbal communication. Eye-to-eye gaze, facial expression, body postures, and gestures may all be affected. Children frequently do not develop age-appropriate relationships with their peers around them. Additionally, they may not try to share their interests or emotions with other people in the same way other children of their age might, and they often fail to respond appropriately in social or emotional situations. Children with autism also frequently lack the spontaneous pretend play or social imitative play in which other children their age would engage.

All children with autism demonstrate deficits in 1) social interaction, 2) verbal and nonverbal communication, and 3) repetitive behaviors or interests. In addition, they will often have unusual responses to sensory experiences, such as certain sounds or the way objects look. Each of these symptoms runs the gamut from mild to severe. They will present in each individual child differently. For instance, a child may have little trouble learning to read but exhibit extremely poor social interaction. Each child will display communication, social, and behavioral patterns that are individual but fit into the overall diagnosis of autism (www.nimh.nih.gov/publicat/autism.cfm, accessed at 14 June 2007).

(Suryana, 2004: 13-14) according to Dr. Faisal, the characteristics of autistic children are as follows:

- Do not care of their social environment
- Do not give normal respond in their social relationships

- The development of language and speech are slow and delay in language
- Autistic children have limited view or thinking

Particularly, some autistic children have a high intelligence and in a hyperactive performance. As in *Mercury Rising* movie, which tells about an autistic child life, shows an autistic child who has 'splinters skills' in which he can break unbreakable code of N.S.A. Carrol (1985: 390) states that autistic children are sometimes showed the splinters skills which these skills are defined as an ability to draw or to play piano, or an excellent memory.

2.3.1.1 Social interaction

- Marked impairment in the use of multiple nonverbal behaviors such as eye-to gaze, facial expression, body gesture, gesture to regulate social interaction
- Failure to develop peer relationships appropriate to developmental level
- A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people
- Lack of social or emotional reciprocity

2.3.1.2 Communication ability

- Delay in or total lack of, the developmental in spoken language not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime

- In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
- Stereotyped and repetitive use of language or idiosyncratic language
- Restricted repetitive and stereotyped patterns of behavior, interest, and activities
- Does not speak one word by 16 months
- Does not combine two words by 2 years
- Does not respond to name
- Loses language or social skills

2.4 Language in Autistic Children

By age 3, neurotypical children have passed predictable milestones on the path in learning language; one of the earliest is babbling. By the first birthday, a typical toddler says words, turns when he hears his name, points when he wants a toy, and when offered something distasteful they answer "no".

Speech development in autistic children takes a different path developmentally than in neurotypical children. Some autistic children remain mute throughout their lives. Some infants who later show signs of autism coo and babble during the first few months of life, but stop soon afterwards. Others may be delayed, developing language as late as the teenage years. Inability to speak does not mean that autistic children are unintelligent or unaware (www.autisminfo.com, accessed at 16 May 2007).

Carrol (1985: 390) states that autistic children typically show very little interest in social interaction; to the contrary, they usually avoid eye contact with others. Basically, autistic children are more interested in an object than people, and will play for hours a time their mechanical toys. The autistic children dislike other people to disturb the common condition of their surroundings. Additionally, the autistic children are in panic when the surroundings or the environments change from their daily routines.

Difficulties in areas of communication are the core of autism. Now a new brain imaging study shows that autistic boys who have language problems have structural differences compared with autistic children with normal language skills (Hitti, 2004).

Autism is a developmental disorder affecting social interaction, and verbal and nonverbal communication skills. In addition autistic children usually respond differently to their surrounding. They typically do not follow the usual patterns of childhood development and the condition usually can be detected before age 3, but not all cases are diagnosed that early.

The language characteristics of autistic children can be classified as follows: verbal, nonverbal, delayed verbal, and echolalia. Autistic children, classified as verbal, tend to give elaborate explanations and refuse to change the topic despite cues given by the other communicator. Since children are being diagnosed younger and intervention is being implemented earlier, there has been a considerable reduction in those children who are classified as

nonverbal. Those children, classified as delayed verbal, have problems in areas such as phonology, syntax, and semantics. Even when autistic children use language, their language differs both in the number of utterances and reasons for communicating from that used by typically developing children (Wetherby and Prutting, 1984). For example, autistic children used communication most frequently for questing objects, actions, or protesting. While typically developing children used communication most frequently for labeling. Additionally, autistic children exhibited fewer social responses than typically developing children. Two reasons account for this discrepancy in social responses; one is that autistic children are likely to be involved in fewer social interactions due to the limited number of utterances that they emit. And, the second reason is that autistic children tend to use language to meet their needs (i.e. requesting and protesting), instead of using language to socialize with others. Lastly, those children exhibiting immediate echolalia are able to repeat all or part of the utterance just heard. This repetition most often occurs when the child does not seem to know an appropriate response to the previous utterance or question (Carr, Schreibman, and Lovaas, 1975).

It has been found that some children who are later diagnosed with autism appear to have normal language development, but later regress in their communication abilities (Robert, 2004).

2.5 Expressive Language Disorder in Autistic Children

Problem in language and communication play a prominent role in autism. Of the 11 cases studied by Kanner, none developed language normally. Three were mute, and the other autistic children develop language later and in a form that appeared to be different from that of normal children. In particular, although the speech of autistic children is usually clear, it often consists of memorized lines parroted back in seemingly inappropriate situations (Carrol, 1985:390-391).

Although general language delay is common to several developmental disorders, some linguistic features of autism are rather unique to the disorder. Limited vocabulary, limited prosody (resulting in mechanical or robotic sounding speech), and impaired pragmatic or communicative skills are among these linguistic deficits. Of special interest is echolalia, pronoun reversal, and impaired emotional and mental language abilities (Prizant, 1983).

Work with verbal autistic children has demonstrated phonological, syntactic, and semantic production defects which are not understandable solely in terms of a developmental language, but also suggest aspects of atypical linguistic development. This investigation is a preliminary attempt to test not only the production, but also the perception, of phonological variables in a group of autistic children, with the aim of identifying some of the atypical features of their linguistic competence when compared with normal children and children showing idiopathic mental retardation. Normal, mental retarded, and autistic children were tested by Wepman Auditory Discrimination Test and A False-Positive Test, the findings show that the autistic children make as

many phonological mistakes as the mental retarded and that they are particularly deficient in the production and perception of fricatives and liquids. This suggests that autistic children are delayed in the development of phonological competence (Eric, 2007).

Phonology is the science of speech sounds and sound patterns. Every language has rules about how sounds can be combined. If a child does not use the conventional rules for his or her language but develops their own, they may have a *"phonological disorder"*. In this case, classes of sounds, rather than single sounds are affected. Phonological disorders are characterized by failure to use speech sounds that are appropriate for the individual's age and dialect. Phonological disorders involve a difficulty in learning and organizing the sounds needed for clear speech, reading and spelling (cited from www.speechville.com).

Basically, the speech of autistic children clear and articulate, but Bortulacci, Pierce, Streiner, and Eppel (1976: 391) report that the phonology of autistic children is much poorer than normal children, they make some kinds of errors. The autistic children made various phonological errors (substitution, deletion, assimilation, and addition). Meanwhile, there are many places of articulation and manner of articulation which are difficult to be produced by autistic children.

In essence, an articulation disorder is a speech disorder that affects the phonetic level. The child has difficulty saying particular consonants and

vowels. There are some places of articulation which are difficult to be produced by some autistic children:

1) Interdenal: ð, θ (the tip of the tongue touches the back of the upper teeth)
2) Labiodental: f, v (the bottom lip against the upper front teeth)
3) Alveolar: t, d, s, z, n, l, r (the tongue against the alveolar ridge of the gums just behind the upper front teeth)
4) Alveopalatal: sh, š, č, ž, ĵ, t (the front of the tongue is raised on the alveolar ridge or the palate)

And the point of articulation as shown in the table (2.5.1)

Table 2.5.1 The English Consonant

MANNER OF ARTICULATION	POINT OF ARTICULATION															
	Bilabial		Labio Dental		Dental		Alveolar		Palato Alveolar		Palatal		Velar		Glottal	
	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd
Plosive	**p**	**b**					**t**	**d**					**k**	**g**	**?**	
Fricative			**f**	**v**	**0**	**ð**	**s**	**z**	**š**	**ž**					**h**	
Africate									**č**	**ĵ**						
Nasal		**m**						**n**								
Lateral								**l**						**(l)**		
Rolled								**r**								
Flapped								**/r/**								
Semi-vowel		**w**										**y**		**(w)**		

Source: Clark& Clark (1977: 180-182)

Autistic children loss of acquired speech that produced unusual noises of infantile squeals, their voice louder than required and difficulty in understanding basic things and also no spontaneous institution of speech and communication. These characteristics can be categorized as voice disorder. Functional voice disorders arise when the voice is used improperly. Misuse of

the voice includes talking too much or too loudly, yelling, or using an unnatural pitch (faking a deep or high voice).

Speech in autism will tend to be non-productive, often showing both immediate and delayed echolalia. It will also tend to be pedantic and uttered in a monotone or with unusual intonation and stress (Rita and Powell, 1995: 71).

Autistic children have complete absence of speech or echolalia; there are two kinds of echolalia characters, delayed echolalia and immediate echolalia. Immediate echolalia is a parrot-like repetition of words the child has just heard spoken, while delayed echolalia is repetition of words or phrases heard in the past (often in the accent of the origin speaker). There may be repetitive stereotyped, inflexible and often idiosyncratic use of words or phrases, immaturity of grammatical structure of spontaneous (not echoed) speech, problems in sequencing and in understanding meaning, a muddling of the sequence of letters and words (Gleason, 2005).

In particular, although the speech of autistic children is usually clear, it often consists of memorized things they heard or watched in inappropriate situation. Indeed, they have some problems in communication and language development such as phonology, syntax, semantics, and pragmatics. These are two points of language disabilities that play prominent role in autism (Carrol, 1985: 391).

Repetitive and stereotyped utterances take the place of novel and creative ones; abnormal and eccentric use of language almost as if the artistic person was speaking a foreign language. Conversation with and autistic children may

be a matter of ritualistic question and answer, with the child insisting on the mother asking a specific set of question; if the mother varies, even in the way detail which is she asks the questions, the child may respond with a severe and prolonged tantrum.

Furthermore, their tone of voice has a much more subtle inflection in reflecting their feeling, and the auditory system of a person without autism often cannot sense the fluctuations. What seems to non-autistic people like a high-pitched, sing-song, or flat, robot-like voice is common in autistic children. Some autistic children with relatively good language skills speak like little adults, rather than communicating at their current age level, which is one of the things that can lead to problems (www.autisminfo.com, accessed at 14 April 2007).

2.6 Mercury Rising Film

Mercury Rising is a 1998 action thriller feature film, starring Bruce Willis Miko Hughes and Alec Baldwin. Directed by Harold Becker, the movie is based on Ryne Douglas Pearson's 1996 novel; originally published as ***Simple Simon***. Harold Becker has only created a few films during his career, but most of them have been notable. He began in film as a still photographer. He worked in television advertising for a while before turning to documentary making. In 1972, Becker made his distinguished feature film debut with ***The Ragman's Daughter.*** He is noted for his versatility and the consistently high quality of his films, ***Sandra Brennan.***

In this film, Bruce Willis plays Art Jeffries, an undercover FBI agent who protects a nine-year-old autistic boy who is the target for assassins after cracking a top secret government code. A cryptographic code called "Mercury" was created by The National Security Agency (NSA), so complex that its creators believe no computer on earth can decipher it. Originally created during the Reagan Administration as a test to keep the United States' highest priority secrets under wraps, their assumption is revealed to be false when they receive a message from an autistic savant boy named Simon Lynch (Miko Hughes) who calls a telephone number written in the code, which was secretly published in a puzzle magazine by two of the creators to see if anyone could break it. Colonel Kudrow (Alec Baldwin) seeks to silence Simon. Kudrow sends a hit man to murder Simon and his family.

After killing the boy's parents, the assassin searches the house, fails to find Simon, and leaves at the sound of approaching sirens. Art Jeffries (Bruce Willis) is an undercover FBI agent who protects Simon. He finds Simon hiding in a cache of his bedroom closet and takes the boy under his wing. Jeffries begins to realize the difficulty of protecting, let alone questioning Simon, because of his impaired social abilities as a result of his autism. The situation is further complicated by the fact that nobody at the FBI believes Simon is in any danger. Meanwhile, Colonel Kudrow, upset by disagreement over how to handle the case, murders one of his employees. The murdered employee's friend turns to Jeffries for help, and together they set a trap in which Kudrow is killed. The film ends with Simon being adopted by a new

family.

The film received mostly negative reviews from film critics, garnering a 19% approval rating at Rotten Tomatoes. Only Miko Hughes's performance as the autistic protagonist was recognized as a positive aspect of the film. Bruce Willis won the 1999 Golden Raspberry for his performance.

The film earned $10,104,715 in its opening weekend in 2,386 theaters. The film grossed $32,935,289 in the United States and $60,172,000 internationally for a total of $93,107,289 (Tomatoes; 2007).

2.7 Previous Studies

These are some previous studies which may have similar discussion with the present study. However, some of them discussed about autistic children, speech disorder and language disorder.

Mukminah (2007) analyzed on speech disorder of a cerebral palsic man in "Door to Door" film. She observed Bill Porter's utterances in "Door to Door" film. She found articulation disorder, phonological disorder, voice disorder, and stuttering in Bill Porter's utterances.

A study conducted by Heather Woodward (2006), *Padded Room at Heart of Autism Controversy* gave several solutions for some parents with autistic children how to treat some therapies to their autistic children. One of the therapies is giving autistic children "safe space" that is sometimes needed to calm down autistic children who could pose a danger to themselves or other. She explained that in many case, several medications were tried but

unsuccessfully and drug treatments may lose much of their effectiveness for mitigating symptoms later in life. Therefore, need some therapies to treat autistic children.

Third research was done by Grant (2006) who documented her research in the form of article under the title *Some Autistic Children are not Ill, They are just Badly Behaved.* She described about children with autism who have some bad attitudes. They always tantrum when they find some different habits in their daily living. Based on her article, all of the symptoms above belong to excessive attitude. She also added the statistic of children who experienced autism in Scotland.

Itqiana (2006), *Language Disorder of Stuttered man Aged 26* investigated a stuttered man aged 26. She discussed about language production, language disorders, speech, speech disorders, and stuttering. She observed a stuttered man aged 26's daily communication in six different situations. There are three situations within several kinds of linguistic disorders produced by him, they are; telling the story, explaining something, and reading the Arabic book. In addition, the three others; singing, reading the Holy Qur'an, and performing Drama Theater. In conclusion, she found three situations within some categories of stuttering namely disfluency, blocking, avoidance behavior, and severity.

Fauziyah (2003) focused on a pragmatic study on speech acts used by autistic children. She has investigated speech acts used by some patients of autistic therapy of RSI- Dinoyo- Malang in the intermediate and advance

level. She described about the theory of Hyme “SPEAKING”, characteristic of pragmatic study, speech act theory, and language in autistic children. She found three acts from the utterances of autistic children. They are assertive acts, directive acts, and expressive acts. The autistic children utter some acts to represent the social purposes in differently with the truth of the expressed proposition obviously.

Those related researches may have similar discussion with the present research although it is not the same at all. However, the study about language disorder of autistic children is rarely investigated by the researchers, therefore this study may become the lead for the next researchers.

CHAPTER III

RESEARCH METHOD

This chapter covers the description and the discussion of the research method. The description includes research design, data source, research instruments, data collection, data analysis, and triangulation.

3.1 Research Design

This study is qualitative non experimental. The features of this study are naturally occurring, ordinary events in natural setting framed in a movie. It is also local grounded-ness; it means that the data are collected in close proximity to specific situation not by mailing or over the phone. In addition, it attempts to describe phenomena that happen in human life namely autistic language and it is hard to measure the data quantitatively since the data are in the form of word, utterances, or conversations taken from the film.

The study emphasizes the specific case—language disorder by using psycholinguistic approaches to analyze expressive language disorder of the autistic child in *Mercury Rising* film.

3.2 Data Source

In this study, the data sources are obtained from the words, utterances, or conversation of language spoken by Simon Lynch, a nine year old autistic boy, in *Mercury Rising* film.

3.3 Research Instruments

Research instruments are important to obtain the data of this study for it is a set of methods, which are used to collect the data. This qualitative study utilized the researcher as the main instrument who obtains the data, because it is impossible to analyze the data directly without any interpretation from the researcher. Besides, the research also needs the other instruments, such as; cassette disc of the film, reading script of *Mercury Rising* film, and gold wave phone program to identify the intonation of Simon Lynch's utterances.

3.4 Data Collection

To collect the data, the following steps will be done: firstly, investigating the data from *Mercury Rising* film. The data is collected by watching the film from the beginning up to the end to know how long and frequent the data will be presented. Secondly, selecting and categorizing the data which meet the theory of expressive language disorder of the autistic child. The research examines in what scene, setting and characters the phenomena of language disorder of the autistic child can be found. Then, classifying the data by considering the characteristics of expressive language disorder of the autistic child. Thirdly, data reduction have to be done in order to answer the propose research questions. This study only uses the data which are appropriate for the characteristic of expressive language disorder of autism produced by Simon Lynch as child with autism in *Mercury Rising* film.

3.5 Data Analysis

To analyze the expressive language disorder of the autistic child in film, some steps will be done: Firstly, categorizing the data in accordance with expressive language disorder of the autistic child. Secondly, discussing and interpreting the data based on the theory of expressive language disorder of the autistic child. To analyze each datum, this study follows the explanation in chapter II. Thirdly, analyzing the whole data. After analyzing the whole data, the research assumes the expressive language disorder produced by the autistic child in *Mercury Rising* film. Fourthly, making conclusions from the analysis of the data to obtain the answer to research question, that are kinds of the expressive language produced by Simon Lynch as the autistic child in *Mercury Rising* film and identifying how Simon Lynch produces the expressive language disorder in *Mercury Rising* film.

3.6 Triangulation

To check the validity of the data, the study uses triangulation. Triangulation is the way to check the validity of the data by using other things outside the data to check and compare them. Triangulation is used to increase ones understanding of whatever is being investigated to get the validity of the data from the field of research.

In this study, the research uses the data triangulation. That is observing the film as well as uses script of *Mercury Rising* film as a substance of analysis.

Furthermore, using theory triangulation which consists of using multiple rather than single perspective in relation to the same set of object at the same field of the study. This study compares the problems of the study to the related theory about expressive language disorder in the autistic child as stated in chapter II in order to get more valid analysis. The last, the research also uses person triangulation. The researcher as a therapist of autistic child used her experience of communicating with autistic children to support the analysis. Another perspective is also given by her advisor who teaches psycholinguistics as well to recheck the validity of the data.

CHAPTER IV

FINDING AND DISCUSSION

This chapter presents the analysis of data findings according to the theoretical framework as stated in the previous chapters, including the interpretation of the finding within each section. The findings are discussed based on the appearance of the data in the expressive language disorder of the autistic child in *Mercury Rising* film. The last section of this chapter is the discussion based on the analysis of the data findings to explain the research concerned.

4.1 Research Finding

This part explains the finding of the data which are analyzed. In the research finding, the language production which is taken from Simon Lynch's utterances in *Mercury Rising* film is identified and described. The data are divided to some cases according to the scene of the film.

The data findings are formed in some kind of symbols for making the simplicity of the data analysis process, for instance male (m), female (f), date/month/year, etc. Basically, it uses some symbols of data analysis, processing the description of the utterance that are found, such as Simon Lynch the data presentation uses SL, Art Jeffries uses AJ, teacher I uses T_I, teacher II uses T_{II}, bus driver uses BD, mommy uses Mm, Man on the phone uses Mn, father uses F, nurse uses Ns, Lomax uses L, Diana uses D, TJ uses TJ, Girl on the phone uses G.

The data also use the number [01.1] means that the first utterance from the first datum and [02.1] means the first utterance from the second datum, etc. After that, the data analysis is described directly after displaying the data.

4.1.1 Finding

4.1.1.1 Data I

SL : "Right on western, left on Belmont." [1.1]

T_I : "Hey, Simon, I have a surprise for you." [1.2]

SL : "Right on Halsted left on Fullertoon." [1.3]

T_I : "You're giving some good directions.
Look…! I have something very, very special.
You like these puzzles, don't ya?" [1.4]

SL : "Uh-huh…." [1.5]

T_I : "But not yet Simon. If I give you the puzzle book,
I want you to join in with the rest of the class,
okay? That's great!" [1.6]

Context:

The class was begun, most students have sat down but Simon Lynch is still busy with him self examining the standing map while giving some directions to himself (1.1). The teacher approaches Simon and gives surprise to Simon [1.2]. Simon does not pay attention to her. Although the teacher gives praise to him [1.4], he still ignores her. Simon has an abiding interest in giving some directions [1.3]. But when the teacher shows a puzzle book [1.4], Simon pays

attentions quickly and takes it [1.5]. Before giving the puzzle book, the teacher orders Simon to join in with the rest of the class, he directly does what the teacher's said [1.6].

4.1.1.2 Data II

T_{II} : "Good Morning, Simon." [2.1]

SL : "Good Morning, Teacher." [2.2]

T_{II} : "Look at me!" [2.3]

SL : "Good Morning, Teacher." [2.4]

Context:

Simon comes to another teacher to join in with the rest of the class, the teacher greets Simon [2.1]. Simon answers by avoiding eye contact [2.2]. Then the teacher commands Simon to look at her eyes [2.3], Simon repeats greeting by looking the teacher's eyes [2.4].

4.1.1.3 Data III

SL : "Mommy, Simon is home. " [3.1]

Mm : "Look at me…!" [3.2]

SL : "Hi, Mom." [3.3]

Mm : "Hi, Honey. I missed you. Come on inside!" [3.4]

Context:

Simon is in front of the door's house. He rings the bell thrice although he has already seen his mother while standing up behind the door. After his mother opens the door, he greets his mother by avoiding eye contact [3.1]. His

mother commands Simon to look at her eyes by pointing her own eyes [3.2]. Simon repeats his greeting [3.3]. His mother replies his greeting and lets Simon come inside home [3.4].

4.1.1.4 Data IV

Mm : "Be Careful!" [4.1]

SL : "It's very hot. Sip it slowly." [4.2]

Mm : "Daddy'll be home soon and when you finish that, you can wait for him up in you room." [4.3]

Context:

In the kitchen after Simon's arriving at home, he and his mother make a cup of hot chocolate. Simon makes a cup of hot chocolate by himself. Mother reminds him to be careful when drinking it [4.1]. Simon talks to himself to sip it slowly because it is very hot [4.2]. Mother commands Simon to wait for his father in his room after finishing it [4.3]. Simon does what his mother's said.

4.1.1.5 Data V

Mn : "Congratulations. You've reached the Puzzle Center for solving one of our master puzzles… You've won a subscription to the magazine of your choice. Can I please have your name, address and telephone number?" [5.1]

SL : "You are….a stranger." [5.2]

Mn : "Excuse me, this the puzzle centre.

Where did you get this number?" [5.3]

SL : "Puzzle nine-nine." [5.4]

Mn : "What did you just say? Who is this?" [5.5]

Mm : "Simon, put down the phone." [5.6]

Context:

Simon does puzzle which was given by his teacher. He breaks one of the puzzles. It is an important code of NSA which is put in the puzzle in order to check its validity. Immediately, he calls the phone number given in the puzzle after breaking the code. The man on the phone greets Simon and asks some questions to him [5.1]. Simon does not answer his questions because according to him the man is a stranger [5.2]. The man asks Simon again where he found the phone number [5.3]. Simon answers his question [5.4]. The man asks Simon's identify [5.5]. But Simon hangs up the phone because his mother commands Simon to put down the phone [5.6].

4.1.1.6 Data VI

AJ : "How you doing, champ?

You okay in there?

Come on.

You can come on out now

Nobody's gonna hurt you

I'm not gonna hurt ya. Okay

Come on. Come on." [6.1]

SL : “No,no,no, no!” [6.2]

AJ : “Simon! All right

Quiet! Quiet!” [6.3]

SL : “Hmmmm…” [6.4]

Context:

Art Jeffries, the agent of FBI, finds Simon is hiding in the cupboard after his parents were killed by the murderer. Jeffries allows Simon to go out from the cupboard [6.1]. Simon is getting tantrum. He is screaming and kicking Jeffries (6.2). Jeffries lets Simon free and flee Simon on the floor [6.3]. Directly, Simon plays game, while he is grumbling unclear words [6.4].

4.1.1.7 Data VII

SL : “Mommy! Daddy!

Mommy! Daddy!” [7.1]

AJ : “Tell him to turn that off!

Turn the siren off! [9.2]

Simon, ho. Hey!

Now look. Who’s this? Is that your

Mommy right there? Is that your mommy?” [7.3]

SL : “Mommy! Mommy!” [7.4]

AJ : “Right there?

Yes that’s right

Your mommy. That’s her. Is that your daddy?” [7.5]

SL : “Daddy.” [7.6]

AJ : “Right! “Do not touch. It may be hot.
” That’s very good advice. Is that your
teacher? Dr. London? She is your friend,
right? My name is Art, I’m you’re friend too.” [7.7]

SL : “Art is a stranger! Art is a stranger! Art is
a stranger!” [7.8]

Context:

Jeffries takes Simon to the ambulance, protecting him from anybody who wants to kill him. Simon gets tantrum because he is in strange condition. He continuously calls his mommy and daddy [7.1]. Jeffries commands the ambulance driver to turn the serine off because it will make Simon more panic [7.2]. He takes Simon’s cards kept pinned in his belt. He calms Simon down by showing his mother’s picture [7.3]. Simon gets calm down [7.4]. He also confirms Simon about his father’s picture [7.5]. Simon points its pictures by humbling his daddy [7.6]. He tries to introduce himself as Simon’s friends too [7.7]. Simon gets tantrum again because in his opinion Jeffries is a stranger and Simon does not recognize him before [7.8].

4.1.1.8 Data VIII

SL : “Shh. Shh. Shh.
Shh. Ow!” [8.1]

AJ : “Here we go. Here we go.

Simon, get in the elevator." [8.2]

AJ : "Hi. Yeah. A little crowded, huh?" [8.3]

Nr : "Just made it, Doctor. You must be new.

Welcome to Concordia." [8.4]

L : "Thank You. You're very kind." [8.5]

SL : "Eight…

Seven…

Six…

Five…

Four…

Three…

Two…

One… " [8.6]

Context:

Jeffries carries Simon on his waist going out from the hospital because Lomax wants to kill him. But Simon does not want to be carried by Jeffries. He struggles with all his might by screaming unclear words and kicking [8.1]. When Jeffries gets off Simon to the floor, Simon gets calm. Jeffries commands Simon to get in the elevator [8.2]. Simon enters the elevator without thinking twice. It is a little bit crowded in the elevator. Jeffries greets all people there [8.3]. Suddenly Lomax enters the elevator. He is disguised as a doctor in the Concordia hospital. A friendly nurse addresses him [8.4]. Lomax reciprocates to address her [8.5]. In a minute, there will be a frightened

moment. Lomax is ready to kill Simon but Jeffries stands by Simon. Innocently, Simon counts the number of elevator steps [8.6].

4.1.1.9 Data IX

AJ : "Come on, Simon. We don't need any more attention right now." [9.1]

SL : "Ow…..!" [9.2]

AJ : "Leave it alone, all right?" [9.3]

SL : "Hmmmm….!" [9.4]

AJ : "Keep off the buttons. Okay! Okay! Leave the buttons alone, goddamn it! Please, please!" [9.5]

AJ : "One small step for mankind." Get Down! [9.6]

SL : "Mommy! Daddy! Mommy! Daddy! Mommy! Daddy! Mommy! Daddy!" [9.7]

Context:

Jeffries and Simon escape from Lomax. They are riding the ambulance car. Because Simon is keen on buttons, he always pushes the siren buttons and plays with it. Jeffries asks Simon to leave it [9.1]. But Simon still pushes the buttons and screams to Jeffries [9.2] and [9.4]. When Jeffries begs Simon by saying "please" [9.5], Simon is silent and does not push the buttons anymore. Then, Lomax gets Simon and Jeffries. He shoots them, but his gunfire is

unsuccessful. Simon is very panic facing the frightened condition. He always grumbles his mommy and daddy [9.7].

4.1.1.10 Data X

AJ	: “Come on. Let’s go, Simon. Come on.”	[10.1]
AJ	: “Friends.” “Mr. Pasquale.” Bus driver.”	[10.2]
SL	: “Pasquale-ee…“	[10.3]
AJ	: “Pasqual-ee? That’s his name, Mr. Pasquale?”	[10.4]
AJ	: “Is that why you won’t Talk to me? You think I’m a stranger?”	[10.5]
AJ	: “Art. That’s me. I’m your friend. See? Art is your friend.”	[10.6]
SL	: “No! Art is a stranger!”	[10.7]
AJ	: “Okay, Simon. Okay Art is a stranger! All right!”	[10.8]

Context:

Jeffries and Simon get in the train [10.1]. Simon is busy with him self, he examines map in which found in the upper of their sitting. While Jeffries reads Simon’s cards [10.2], Simon blames Jeffries in spelling his bus driver name [10.3]. Jeffries follows Simon spelling [10.4] then he continues reading the cards. Finally he finds a card in which says that Simon may not talk to the strangers. Jeffries understands why Simon does not want talk to him, because

he is a stranger [10.5]. Jeffries tries twice introducing him self to Simon [10.6]. Simon gets tantrum by screaming and hurting him self [10.7]. Jeffries gives up and tells Simon that he is a stranger [10.8].

4.1.1.11 Data XI

SL : "Daddy is going to sing.
Daddy is going to sing.
Daddy is going to sing.
Daddy is going to sing." [11.1]

AJ : "How can you not be tired?" [11.2]

SL : "Daddy is going to sing." [11.3]

AJ : "Daddy's not here right now, Simon." [11.4]

AJ : "I told you, your daddy is not here now!
Oh God. How am I supposed explain this?" [11.5]

SL : "Daddy is going to sing.
Daddy is going to sing.
Daddy is going to sing." [11.6]

Context:

Simon always grumbles many times, he thinks that his father is going to sing for him [11.1]. Jeffries talks Simon that his daddy is not there [11.5]. But Simon still grumbles that his father is going to sing [11.3] and [11.6].

4.1.1.12 Data XII

AJ : "Let's go for a ride." [12.1]

SL : “Left. Left on Kenwood, left.” [12.2]

AJ : “Okay. We are going left.” [12.3]

SL : “Howard Avenue to “J” street.” [12.4]

AJ : “That’s right. “J” Street…” [12.5]

SL : “To West Twenty-Third Street.” [12.6]

AJ : “You know where we’re going?” [12.7]

SL : “Simon is going home.” [12.8]

Context:

Jeffries offers Simon to accompany him by riding a car [12.1]. Simon follows him. Simon gives Jeffries the direction where he is going to go [12.2], [12.4] and [12.6]. He asks Simon whether he knows where they are going to go [12.7]. Simon answers that he is going to home [12.8].

4.1.1.13 Data XIII

AJ : “Come on, come on.” [13.1]

SL : “Mommy, Simon is home.

Mommy! Simon is home.

Simon is home.” [13.2]

AJ : “Want this?” [13.3]

SL : “Very hot, sip it slowly.” [13.4]

Context:

Jeffries lets Simon entering his home [13.1]. Simon calls her mother and tells that he is home [13.2]. He calls her many times because there is no

answer. Simon goes to kitchen, Jeffries follows behind him. Simon does his ritual activities. He takes a glass and waits for a chocolate powder. Jeffries takes a chocolate powder from topless and gives it to Simon [13.3]. Simon makes a glass of hot chocolate by him self. Before drinking a glass of hot chocolate he talks to own him self to sip it slowly because it is very hot [13.4].

4.1.1.14 Data XIV

G : "Congratulation. You've reached the Puzzle Center for solving one of our master puzzles… You've won a subscription to the magazine of your choice. Can I please have your name, address and telephone number?" [14.1]

SL : "You are…a stranger." [14.2]

Context:

Simon does his puzzle. After breaking the same puzzle (he had ever done it before), he calls the telephone number printed in the puzzle book. The girl in the phone congratulates Simon that he wins her master puzzle [14.1]. When she asks Simon' identity, Simon does not give it and talk to her that she is a stranger [14.2].

4.1.1.15 Data XV

AJ : "Hey, partner… I need your help with something.

It's a puzzle. Can you help me with a puzzle?" [15.1]

SL : "Puzzle?" [15.2]

AJ : "That's right, a puzzle.

It's right over here.

Come on!

All right, I'm gonna lift you up now, okay?

Let's put you up on the chair!

Can you read that?

Simon, what does it say?" [15.3]

SL : "Today: 12.00."

"The Wrigley Building." [15.4]

Context:

Jeffries asks Simon to help him reading a puzzle in a computer [15.1]. Simon agrees to help him because he is interested in puzzle [15.2]. They both come to computer room. Jeffries lifts Simon up and put Simon on the chair. Simon does the puzzle seriously, Jeffries asks Simon what Simon has already read from the puzzle [15.3]. Simon answers "Today; 12.00, in the Wrigley Building" [15.4].

4.1.2 Analysis

Actually Simon Lynch's speech is clear enough (reasonably) and his articulation is somehow, clear also. Simon Lynch makes some kinds of phonological errors (substitution, deletion, assimilation, and addition). He

often makes speech disorder including articulation disorder, voice disorder and rhythm disorder. He produces improper stress in every syllable. In the end of the last syllable he often makes deletion, and he produces word too long especially in vowel sound. He is lack in the stress and intonational patterns of his everyday speech; it is flat, expressionless speech/ unusual staccato delivery/ a singsong intonation. He also makes many errors in stress assignment. In some condition he produces repetitive and stereotyped utterances.

The following analysis explains the detail expressive language disorder of Simon Lynch's utterances.

4.1.2.1 Data analysis I

The utterance *right on western, left on Belmont* [1.1] is produced when SL gives direction toward himself. The data finding above shows that most of SL's articulations are clear enough. He produces some words in accordance with the place of articulations. However some of the words he produced belong to phonological disorder and voice disorder.

The word ***"western"***, sound ***/s/***, is produced too much, as like it has double ***"ss"***. It also happens when he produces the word ***"lefft"***, sound ***/f/***, is produced with double ***/f/***, ***lefft.*** In these case, SL makes phonological disorder namely addition.

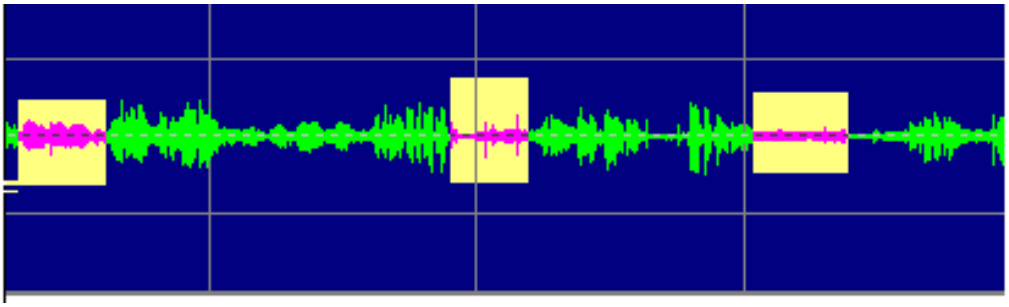
Besides addition, the analysis also finds substitution in the utterance [1.1]. The word ***"Belmont"***, sound /ɔ / is substituted by sound /ɔ ***:***/. Substitution

appears because he makes voice disorder. He uses unnatural pitch and intonation in his speech. In the final utterance, his pitch is too slow and flat. It tends to be robotic sounding speech. There is no emotion on his speech. He takes 03 seconds 40 milliseconds to produce the utterance [1.1].

The utterance *right on Halsted left on Fullertoon* [1.3] is also produced when SL gives direction toward himself. As stated in the analysis above, he makes phonological disorder namely addition in producing the word ***"lefft"***. He produces the utterance [1.3] with quick tone. Nevertheless his intonation seems unnatural. It sounds like robotic sounding speech. Moreover in the final utterance he uses flat intonation. There is no falling or rising pitch in the word ***"fullertoon"***. He takes 03 seconds 90 millisecond to produce the utterance [1.3].

Then the utterance *Uh-huh*…. [1.5] is produced when SL agrees to be commanded by his teacher to join the rest of the class. He produces unclear word [1.5]. He grumbles unclear word by nodding his head (shows that he agrees).

The intonation of the utterance [1.1], the utterance [1.3], and the utterance [1.5] can be seen from the following graphic:



The graphic shows the intonation of the utterance [1.1], the utterance [1.3], and the utterance [1.5]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. It can be seen that SL's intonation is more flat than the intonation of other speaker.

4.1.2.2 Data analysis II

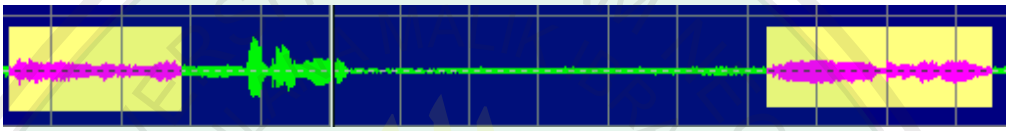
The data shows deletion in SL's utterances when he produces ***"Good morning, teacher"***, he only pronounces "***Good morning, cher"***. He omits the word ***"tea"***, he just pronounces the last syllable ***"cher"/t ə:/.*** In the first segment of the word ***"cher"***, sound ***/t /***, consists of articulation disorder. Sound ***/t /*** is part of affricate alveopalatal, SL produces it with long hissing and vibration. SL produces the word ***"good" /ˆg d/*** is so clear. He articulates /***g***/ by raising the back of the tongue to the uvula and the vocal cords are vibrated. Moreover when he produces the word ***"morning" /ˋmɔ:niŋ/***, it is clearly articulated. The first segment of the word ***"morning" /ˋm/*** is pronounced in bilabial, air escapes not only through the mouth but also through the nose.

The utterance *good morning, teacher* [2.4] is same as the utterance *good morning, teacher* [2.2]. SL repeats the same utterance because when firstly he utters sentence [2.2] SL does not look at the T_{II}'s eyes. Therefore T_{II} also repeats greeting to SL in order SL answers her greeting correctly.

There are some differences between the utterance [2.2] and [2.3], although it seems the same. The intonation of the first utterance [2.2] is more powerful

than in utterance [2.4]. The second intonation of SL' utterance [2.4] is slower and smoother, also there is no meaningful stress. The intonation tends to level off. The utterance [2.2] takes 01 second 61 milliseconds to produce that utterance, whereas the second utterance takes 01 second 79 milliseconds.

The differences of up and down stress and intonation can be seen in the graph below:



The utterance [2.2] The utterance [2.4]

The graphic shows the intonation of the utterance [2.2] and the utterance [2.4]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker.

In the utterance [2.4], SL gives stress the word ***"good"*** in the first syllable, but it is not so clear. Also when he produces the word ***"morning"***, it is produced without giving meaningful stress. Those are unleveled stress.

Almost the words which are produced by SL in utterances [2.2] and [2.4] are unleveled stress, without giving primary or weak stress in every syllable. Only frequent intonation of the first utterance is faster than the second utterance. Actually, SL's utterances are for greeting. But he produces it without strong emotion, also there are no pauses among words after words. Every word relates with other words. It means that the first word at the last

syllable relates with the first syllable/phoneme in the next word. It creates assimilation because the juncture he used is very close.

SL makes phonological disorder namely deletion when he produces the word ***"teacher".*** He only mentions the last syllable of the word ***"cher" /t ə(r)/.*** This analysis is same as the utterance [2.2].

4.1.2.3 Data analysis III

SL tells his mother that he is in home. It shows that SL produces the utterance *mommy, Simon is home* [3.1] with expressionless emotion. His intonation is flat. There is no meaningful stress in every syllable. Actually he gives stress in each phoneme but it seems like he does not, it is because he produces it in slowly utterance or pronunciation. He also gives wrong stress in pronouncing the word ***"mommy".*** He gives stress in the last syllable ***/mɔ`mii/***. When he produces letter ***/ii/*** is too long. It belongs to articulation disorder and phonological disorder namely addition.

SL also makes speech disorder namely voice disorder. There is no pause when he produces the word ***"mommy"*** and ***"Simon"***. He joins two words ***"mommy"*** and ***"Simon"[mɔ`mi:'sa mə n]***. He gives primary stress in the last syllable of ***"mommy"*** and the first syllable of ***"Simon"***. It creates close juncture.

The word ***"is"/ (z)***/ is produced stronger than he produces the word ***"home"/hə m/.*** It is produced too slowly and the stress of the word is not

clear. In the end of this sentence seems there is no punctuation (whether full stop or comma). Therefore the sentence is like flouting sentence.

The first segment of word ***"simon" /s/*** is part of fricative consonant, SL produces sound ***/s/*** by rising the front part of the tongue to the bony tooth ridge. He also produces it with vibration in the front part of the tongue touches the alveolar ridge, though letter ***/s/*** is part of voiceless fricative consonant.

The intonation of SL's utterance tends to be slowly and flat. He takes 02 seconds 47 milliseconds to produce the utterance [3.1]. The stress in every syllable is unusual stress. He gives raise intonation in the end of the sentence.

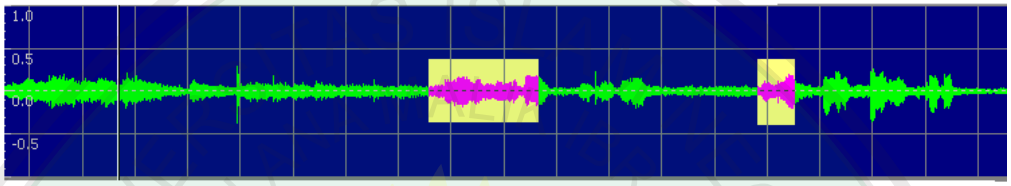
The utterance *hi, mom* [3.3] is produced when SL greets his mother. He produces it expressionless even by avoiding his mother's eyes. He gives high-raising intonation when produces word ***"hi" /hai/***. Sound ***/h/*** is part of voiced fricative glottal. SL articulates it perfectly. But the intonation is flat and the pitch produced is slowly. It also happens when he produces the word ***"mom"*** is expressionless. He does not give any stress on the syllable of the word. The intonation is too flat, without giving strong emotion. Instead of the utterance is for greeting.

The word ***"mom" /mɔ:m/*** consists of phonological disorder namely deletion and substitution. He makes deletion when he omits letter ***"y" /i:/***. Actually, the complete word is ***"mommy"*** but he only calls by simple word ***"mom"***. He also substitutes sound ***/ɔ/*** by sound ***/ɔ:/*** with long.

SL takes 01second 20 millisecond to produce the utterance [3.3]. The intonation of the utterance [3.3] is flat. He also does not give any stress in

every syllable of the words. Therefore the utterance seems to be expressionless.

The following graphic shows the intonation of the utterance [3.1] and the utterance [3.3]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker.



The utterance [3.1] The utterance [3.3]

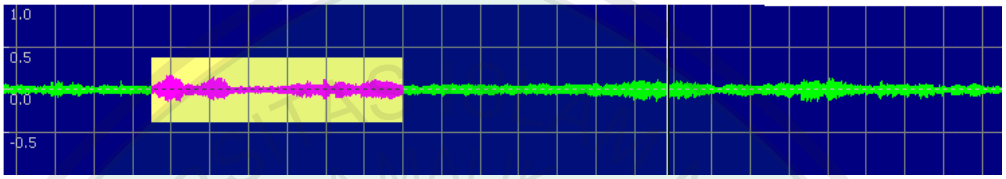
4.1.2.4 Data analysis IV

The utterance *it's very hot. Sip it slowly* [4.2] is produced by SL when he is going to drink a cup of hot chocolate. Here, SL makes substitution in the word ***"hot"*** and ***"slowly"***. SL pronounces the word ***"hot" /h t/***, the sound / / is substituted by the sound ***/ɔ :/***. He pronounces the word ***"hot"*** with slow intonation, therefore it changes the sound / /. SL also makes substitution when he pronounces the word ***"slowly" /slə :li:/***. Here, SL makes two error substitutions; first, when he substitutes sound ***/ə*** / by sound ***/ɔ:/***. Second, error substitution is in the final phoneme of ***/slə :li:/*** sound ***/i:/***. In this case, SL substitutes sound / / by sound ***/i:/.*** As analysis above, SL produces the word by slow intonation, therefore it causes substitution. Furthermore, he makes articulation disorder, he produces sound ***/ə*** / and / / with long pronunciation.

Error stress is also found in SL's utterance. The words ***"it's"*** and ***"it"*** are unleveled stress. He does not give any stress in every syllable of the words.

Then the word ***"very"/ve`r /*** is stressed in the second syllable. SL gives stress in the first syllable when he pronounces ***/`slə :li:/***.

SL takes 03 seconds 76 milliseconds to produce the utterance [4.2]. The intonation of the utterance [4.2] can be seen in the graphic below:



The utterance [4.2]

The graphic shows the intonation of the utterance [4.2]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker and the music instrument of the film.

4.2.3.5 Data analysis V

The utterance *you are….a stranger* [5.2] is produced when SL is asked by a stranger about his identity. Here, SL makes phonological disorder namely assimilation between the word ***"are"*** sound ***/`ə(r)/*** and article ***"a"*** sound ***/ə:/***. He joins both words becoming one pronunciation ***/a:/***. Sound ***/a(r)/*** as an auxiliary should be produced in high pitch than sound ***/ə:/*** as an article, because an article must become weak stress whereas an auxiliary usually in primary stress.

The first segment of the word ***"stranger"*** sound ***/s/*** SL produces it too strong and with long hissing. Sound ***/s/*** is part of voiceless fricative alveolar. But SL produces it in voiced fricative alveolar.

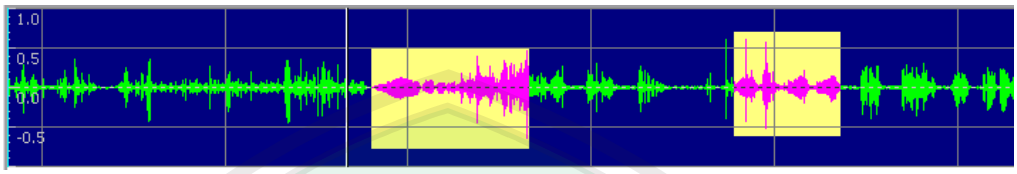
The analysis finds that the intonation and the prosody of SL's utterance are flat and smooth. Moreover, he does not give any proper stress in every word he produces. Though the utterance he produces is for stating disagreeing opinion. But he produces it expressionless. Also in the final word of his utterance, his pitch does not show that the word ***"stranger"*** is his final utterance. Consequently the utterance is flouting. It is because he produces the utterance too slow and he makes flat pitch, it means that he neither uses rise-fall nor fall-rise tone in his final utterance.

SL takes 04 seconds 33 milliseconds to produce the utterance [5.2]. He makes phonological disorder namely assimilation when he produces the utterance [5.2]. The intonation he used is flat and he makes improper stress in every syllable.

There is no phonological disorder in the utterance *puzzle nine-nine* [5.4]. SL produces it when he is asked where he finds the phone number of the puzzle centre. Although he is asked by somebody whom he has never recognized before but he is not objected to answer. It indicates though he gets tantrum when a stranger gets close to him but he still pays attention to him.

The data shows from the utterance [5.4] that almost the words produced are articulate. Only his intonation is too slow with unusual stress. SL gives stress in the second syllable of the word ***"puzzle" /pʌ`zl/***. When he pronounces ***"nine-nine" /nai:n/***, the intonation is very smooth therefore it causes phonological disorder namely substitution. The sound ***/a /*** is substituted by the sound ***/ai:/***.

SL takes 02 seconds 80 millisecond to produce the utterance [5.4]. The graphic of his utterances [5.2] and [5.4] can be seen as below:



The utterance [5.2] The utterance [5.4]

The graphic shows the intonation of the utterance [5.2] and the utterance [5.4]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. It can be seen that SL's intonation is more powerful than the intonation of other speaker. It is influenced by the situation. He feels uncomfortable because he talks to a stranger. This situation is categorized as psychological pressure.

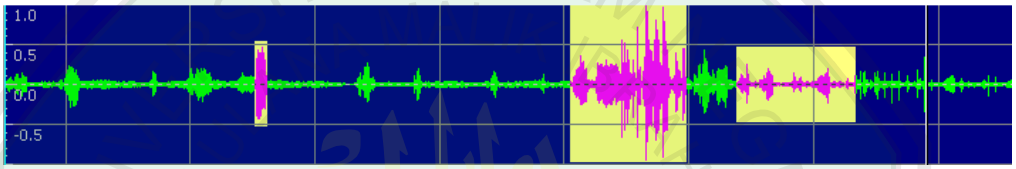
4.1.2.6 Data analysis VI

The utterance *No,no,no, no* [6.2] is produced when SL gets tantrum because AJ takes him out of cupboard. SL screams ***"no, no, no!"*** and grumbles unclear words ***"hmmmm…."***, as in the utterance [6.4].

In the utterance [6.2] there is no phonological disorder. The words he produces are articulate. His intonation is clear and strong. His pitch is in rise tone. He also gives the proper stress (primary stress) in every word. It is influenced by psychological pressure. SL faces unexpected condition, tension, feeling afraid. This situation can be categorized as negative condition that makes his speaking more spontaneous.

The utterance *hmmmm…* [6.4] consists of unclear word. After AJ lets SL get free, SL immediately takes his toys by grumbling unclear word ***"hmmmmm….."***. As analysis above, SL is in psychological pressure. He feels afraid, tension, uncomfortable. Therefore he does that activity to overcome his feeling. He also covers his feeling by grumbling unclear word.

The graphic of the utterances [6.2] and [6.4] can be seen as below:



The graphic shows the intonation of the utterance [6.2] and the utterance [6.4]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. As analysis above, it can be seen that SL's intonation is more powerful than the intonation of other speaker. It is influenced by the situation. He feel uncomfortable because many strangers around him. Moreover one of them touches him. This situation is categorized as psychological pressure.

4.1.2.7 Data analysis VII

The utterance *mommy! daddy! mommy! daddy* [7.1] is produced when SL is in psychological pressure. Here, he grumbles complete sentence, calling his mommy and daddy. He grumbles the words in quick frequency. However, his intonation is improper. In the pitch of the word ***"mommy"***, he uses unusual

tone and lets the word be flouting sentence. He does not use exclamation mark in the end of sentence. Therefore, it is sound strange. In addition it happens when he produces the word ***"daddy"***.

Besides he uses improper intonation, he also gives improper stress in the words he produces. The data shows that SL gives primary stress in the second syllable of the word ***"mommy" /mɔ`mi:/***. Actually the proper primary stress is in the first syllable ***/`mɔmi:/***. Unusual stress is also found when he produces the word ***"daddy"***. He gives primary stress in the second syllable ***/dæ`di:/***, instead of the first syllable which is more suitable to be stressed.

SL makes phonological disorder namely substitution. In the final segment of the word ***"mommy"***, sound / /, part of the high front lax vowel, is substituted by sound ***/i:/***,part of the high front tense vowel. It is the same as when he produces the word ***"daddy"***.

SL takes 06 seconds 20 milliseconds to produce the utterance [7.1]. He produces the words ***"mommy" "daddy"*** many times. Because he gets in strange condition and many strangers there, he gets tantrum by calling his parent and kicking everybody around him. It is called psychological pressure.

The utterance *mommy! mommy!* [7.4] is produced when SL is asked by AJ about his cards. He answers AJ's question [7.4] by pointing the picture. The researcher finds phonological disorder; substitution and also unusual stress. The final segment of the word ***"mommy"***, sound / / is substituted by long i ***/i:/***. He uses monotonous intonation and stress in producing both the words

"Mommy! Mommy!". He gives stress in the second syllable ***/mɔ`mi:/***. The intonation he used is robotic sounding speech. There is no emotion there.

SL takes 01 seconds 23 milliseconds to produce the utterance [7.4]. He lets the sentence flouting because the intonation is smooth and it belongs to robotic question. The stress he gave is also unusual. The first syllable is more proper to be stressed. But he gives stress in the second syllable.

As the same with the utterance [7.4], the utterance *daddy!* [7.6] consists of phonological disorder and monotonous stress and intonation. The final segment of word ***"daddy"***, the sound / / is substituted by the sound ***/i:/*** long i. It is because SL produces the utterance [7.6] slowly, therefore it can change the pronunciation from strong / /, it is produced with strong and quick pronunciation, become long i ***/i:/***, the vowel is somewhat higher and long pronunciation. He also gives unusual stress in the word ***"daddy"/dæ`di:/*** , actually the first syllable is proper to be stress. Unusual intonation is also found in the utterance [7.6]. He produces the word ***"daddy"*** with low pitch. In the last phoneme, he utters long sound it makes the utterance flouting.

SL takes 01 seconds 15 milliseconds to produce the utterance [7.6]. His intonation is slow and flat. Therefore he takes many times in producing only one word. From the utterance [7.1], [7.4] and the utterance [7.6], SL makes same intonation and stress although the situation he produces the utterances are different. The analysis includes these utterances into ritualistic and stereotyped utterances. He also makes ritualistic answers when AJ asks him.

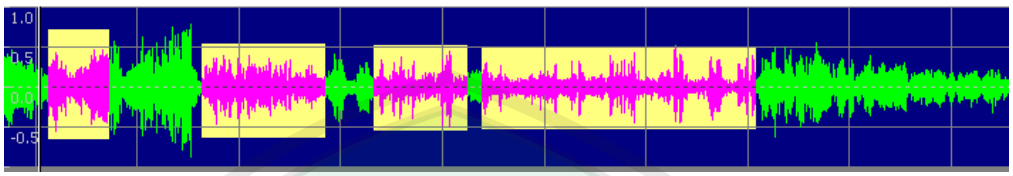
The utterance *Art is a stranger! Art is a stranger! Art is a stranger!* [7.8] is produced when SL gets tantrum because AJ introduces himself as SL's friend. SL does not recognize that AJ is his friend. He still regards AJ as a stranger. Here, SL makes some phonological disorder namely; assimilation and deletion. Assimilation is found when he joins two words ***"art"*** and ***"is", "artis"***. The first segment of the word ***"is"*** sound / / is assimilated by the last segment of the word ***"art" /t/***. Both / / and ***/t/*** have very different place of articulations. Sound ***/t/*** is part of alveolar, it is produced by rising the front part of the tongue to the bony tooth ridge. Whereas sound / / is produced in the high front lax vowel.

The data shows deletion when SL omits sound / ***:/*** in producing the utterance [7.8]. He directly utters ***"artis stranger"***. The researcher analyzes that SL gets difficulty in producing sound ***/ə:/*** between sound ***/s/*** and ***/s/***. He makes assimilation in sound ***/s/*** and ***/s/.*** Therefore, he deletes sound ***/ə:/***. In conclusion, he makes assimilation in producing voiceless fricative alveolar sound.

The intonation of the utterance [7.8] is proper. He makes strong intonation because in that time he is angry. He also makes proper stress in every word he produces. It is influenced by psychological pressure. He rejects everything in which he has never known before. It makes him inconvenient.

SL takes 01 second 05 milliseconds to produce the utterance [7.8]. He makes phonological disorder but the intonation and the stress he gives are proper. In the last tone of the utterance [7.8], he uses falling-rising tone.

The utterances [7.1], [7.4], [7.6], and [7.8] can be seen in the following graphic:



The graphic shows the intonation of the utterance [7.1], the utterance [7.4], the utterance [7.6], and the utterance [7.8]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. As analysis above, it can be seen that SL's intonation is more powerful than the intonation of other speaker. It is influenced by the situation. He gets tantrum because many strangers around him. This situation is categorized as psychological pressure.

4.1.2.8 Data analysis VIII

The utterance *Shh. Shh. Shh. Shh. Ow*! [8.1] is produced when SL is objected to be carried by AJ. He kicks AJ while screaming unclear word ***"shh…shh…shh…shh..ow.."***. He grumbles unclear word, because it will cover his anxious. He is very depressed facing an uncommon situation. Therefore, he is panic and tantrum finding himself not in surroundings or daily routines. This situation is categorized as psychological pressure.

While the utterance *eight, seven, six, five, four, three, two, one…*[8.6] is produced when SL counts the number of elevator's steps. As an autistic child when he enjoys in something, he does not care with others. Although there are many people in the elevator, one of them wants to kill him, innocently he

counts elevator's step. This is one characteristics of autistic child, he prefers inanimate object to animate object.

The first number he produces is the word ***"eight"***. Here, SL makes phonological disorder namely substitution. He substitutes sound ***/e /***, with strong pronunciation, by sound ***/ei:/***, with long pronunciation. The intonation he uses is slow and flat. Therefore it can influence his pronunciation. His unnatural intonation can be categorized as voice disorder. The researcher also does not find stress in his speech. His speech is like robotic sounding speech. He takes 01 second 82 milliseconds to produce the word ***"eight.."***.

When SL produces the word ***"seven"***, he makes articulation disorder. He produces sound ***/s/*** too much, ***"ssevenn.."***, sound ***/s/*** is part of voiceless fricative alveolar. Also, in the final segment of the word ***"ssevenn.."***, sound ***/n/*** is produced too much. Sound ***/n/*** is part of nasal, he produces it with long vibration. As analysis above, the word ***"ssevenn"*** is produced with unusual intonation and pitch. It belongs to voice disorder. In the end pitch of his utterance, he lets the utterance float because he does not use any functional sentence. SL takes 01 second 7 milliseconds to produce the word ***"ssevenn.."***.

In producing the word ***"ssix"*** SL makes articulation disorder. In the first segment of the word ***"ssix"***, sound ***/s/*** is produced too much. He makes long hissing in producing voiceless fricative alveolar sound. He also makes phonological disorder namely substitution. He substitutes sound ***/ /***, ***/s ks/***, by sound ***/i:/***, ***/si:ks/***. Voice disorder can influence the change of his pronunciation. The intonation he uses is too slow and it is like robotic speech.

His utterance is also unleveled stress. SL takes 01second 80 milliseconds to produce the word ***"ssix.."***.

Substitution is also found when SL produces the word ***"ffive"***. He substitutes sound / / by ***/ai:/***, ***/f v*** / becomes ***/ffai:v/***. Besides substitution, he also makes voice disorder, he produces sound ***/f/*** too much. He always makes voice disorder when producing part of voiceless fricative labiodental. There is no falling or rising pitch in his speech. His intonation is slow and flat. His utterance is unleveled stress. He takes 01second 13 milliseconds to produce the word ***"ffive.."***.

The data shows voice disorder of SL's utterance when he produces the word ***"four"***. In the first segment of the word ***"ffour…"***, sound ***/ff/*** is produced too much. He also produces it with long hissing and vibration. Then, the word he produces is unleveled stress. He does not give stress in his utterance neither primary nor weak stress. His intonation is also unnatural. There is no rising or falling pitch that shows the utterance is over. He takes 01 second 21 milliseconds to produce the word ***"ffour.."***.

In producing the word ***"three"***, SL makes voice disorder in the first segment of the word. Sound ***/θ/*** is produced too much and with long vibration.

The analysis shows that SL has difficulty in producing fricative sound. He often makes long hissing and vibration in producing fricative sound. Therefore, the word he produces is too much. Then, his intonation is

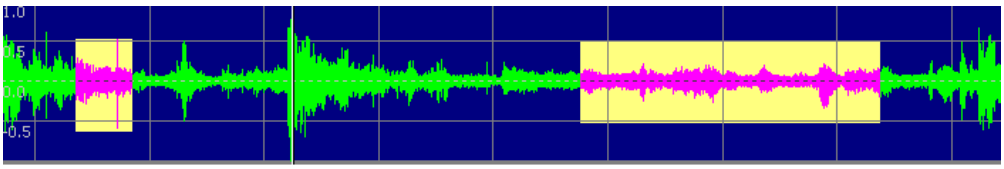
unnatural, that is flat and slow. Also, the utterance is unleveled stress. There is no up and down pitch.

Besides voice disorder, phonological disorder is also found in his utterance. Here, the analysis shows substitution in the final segment of the word ***"three"***. Sound / / is substituted by long i ***/i:/***. SL takes 01second 33 milliseconds to produce the word ***"three"***.

In the utterance ***"two"***, ***SL*** just makes error pronunciation. In the final segment of the word ***"two"***, sound ***/u:/*** is produced too long. As same as analysis above, SL uses slow and flat intonation, neither uses punctuation mark nor rising and falling tone. There is no emotional expression in his utterance. He takes 01second 32 milliseconds to produce the word ***"two"***.

The data shows that the word ***"one"*** is difficult to be produced by SL. He makes phonological disorder namely addition in the first segment of the word ***"one"***. He adds sound ***/u/*** before producing sound ***/w/, /wʌn/ → /uwʌn/***. In this case, SL gives proper intonation. He uses rising-falling tone. He also gives stress in the first syllable of his utterance ***/ˆuwʌn/***. He takes 43 milliseconds to produce the word ***"one"***.

The graphic of the utterance [8.1] and the utterance [8.6] can be explained as below:



The utterance [8.1] the utterance [8.6]

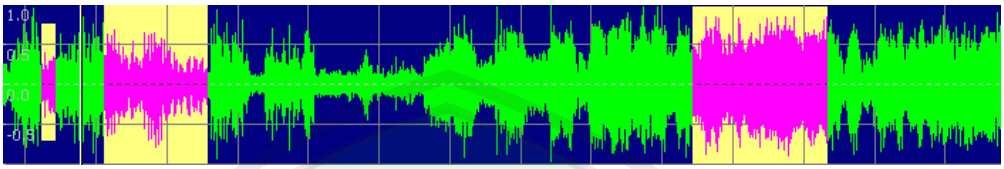
The graphic shows the intonation of the utterance [8.1] and the utterance [8.6]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. It can be seen that SL's intonation is more flat than the intonation of other speaker.

4.1.2.9 Data analysis IX

The utterance *Ow…..!* [9.2] and *Hmmmm…* [9.4] are produced when SL is in negative condition. It means that he is in psychological pressure. At that time, he feels afraid, tension, angry, uncomfortable, and panic because he is with a stranger. Moreover, when he enjoys playing a siren button but AJ prohibits him not to push the siren button. He screams and grumbles unclear word ***"ow……!!"*** [9.2] and ***"hhhmmm……!!"*** [9.4]. The utterance [9.2] and [9.4] are produced with proper intonation. He uses falling-rising pitch in his speech.

SL gets calm when he feels tired. He grumbles the word ***"mommy! daddy!"*** four times. He produces the words with fast frequency. His articulation is clear enough, it is as accordance with place of articulation. But in producing the utterance *Mommy! Daddy! Mommy! Daddy!* [9.7], SL makes voice disorder. He gives error stress in the word ***"mommy! daddy!"***. Primary stress in the first syllable is the correct one, ***/ˋmɔm / /ˋdæd /***, but SL gives stress in the last syllable both words. SL's intonation is strong and powerful. He uses falling-rising pitch. He takes 10 seconds 64 milliseconds to produce the utterance [9.7].

The graphic of the utterance [9.2], [9.4], and [9.7] can be examined as below:



The graphic shows the intonation of the utterance [9.2], the utterance [9.4], and the utterance [9.7]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. As analysis above, it can be seen that SL's intonation is as powerful as the intonation of other speaker. It is influenced by the situation. He feels uncomfortable because many strangers around him. This situation is categorized as psychological pressure.

4.1.2.10 Data analysis X

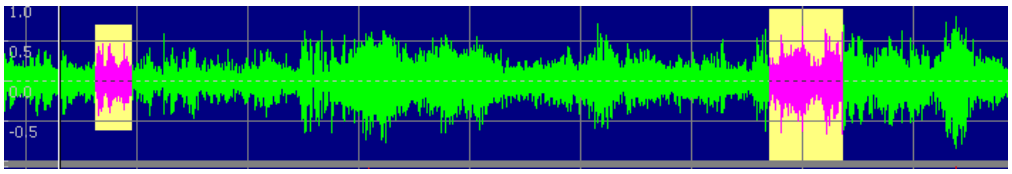
The utterance *Pasquale-ee…* [10.3] is produced when SL blames AJ's pronunciation in spelling his bus driver's name ***"Pasquale-ee.."***. The data shows that SL's articulation is clear enough. In spite of in the final phoneme he makes voice disorder. He utters sound ***/i:/*** too long. He also lets the sentence floating because in the end of his utterance, there is no functional mark used. Then he makes primary stress in the last syllable. He uses falling-rising pitch in his intonation. He takes 02 seconds 43 milliseconds to produce the utterance [10.3].

In the utterance *No! Art is a stranger!* [10.7], SL makes repetitive and stereotyped utterance. When AJ introduces himself to SL thrice as SL's friend, he utters repetitive utterance and hurts himself by colliding his body to the

wall. He produces the word ***"no"*** with strong emotion. His intonation is high and powerful, it is in accordance with the situation. He gives primary stress in the first syllable. Also, his pronunciation is clear, but he makes voice disorder. He utters sound ***/n/*** too much, it creates double sound ***/nnəu/*** . Sound ***/n/*** is part of nasal stop. It is produced by the tip of the tongue makes contact with the alveolar ridge. The data shows that SL has difficulty in producing sound ***/n/*** in the first utterance.

Then, when SL screams ***"Art is a stranger"***, he makes phonological disorder namely deletion. He omits the article ***"a" /œ/***, after producing the word ***"Art is"*** he directly producing the word ***"stranger"***. Besides phonological disorder, he also makes voice disorder. He joins both the words ***"art"*** and ***"is"***, it is sound ***/a:tis/***. Therefore, it influences the stress of the utterance. When SL utters the word ***/a:tis/*** , automatically it has one stress in the first syllable. He does not give stress in the sound ***/Is/.*** But, if SL separated both the words, he would give primary stress in the first syllable both words. As an autistic child, he gets angry if there is something out of his habit. He hurts himself and screams as load as possible. In producing the utterance [10.7], SL's intonation is proper with the situation he faces. He is in angry condition. His intonation is strong and high. He also gives high pitch in producing every word. He takes 02 seconds 75 milliseconds to produce the utterance [10.7].

The graphic of the utterance [10.3] and the utterance [10.7] can be seen as below:



The utterance [10.3] The utterance [10.7]

The graphic shows the intonation of the utterance [10.3] and the utterance [10.7]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. It can be seen that SL's intonation is high and powerful. It is influenced by the situation. He is in angry condition. This situation is categorized as psychological pressure.

4.1.2.11 Data analysis XI

The utterance *daddy is going to sing, daddy is going to sing, daddy is going to sing, daddy is going to sing, daddy is going to sing…*[11.1], the utterance *daddy is going to sing..*[11.3], and the utterance *daddy is going to sing, daddy is going to sing, daddy is going to sing…*[11.6] are same in words but different in analysis. A sentence can be different in pronunciation or intonation. All the utterances are a hymn. SL sings to himself. He assures himself that his father will sing to him because his father used to lull SL every night. Here, SL makes phonological disorder namely assimilation. He assimilates the final segment of the word ***"daddy"***, sound ***/i:/***, with the first segment of the word ***"is"***. SL also makes voice disorder in the utterance ***/dæ`dis/***. Actually when SL does not join both words, he has to give primary stress in the first syllable of the word ***"daddy"*** and in the first syllable in the word ***"is"***.

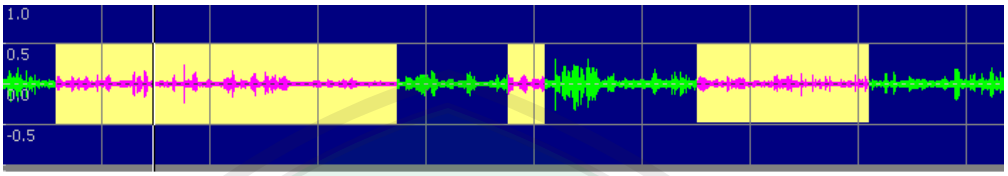
The data shows that the assimilation in the final segment of the word ***"daddy"*** to the first segment of the word ***"is"*** is improper, because it has different stress and articulation in pronouncing those words. Sound ***/i/***, in the final segment of the word ***"daddy"***, is weak stress but sound ***/I/***, in the first segment of the word ***"is"***, is primary stress and produced with strong pitch. Because SL assimilates both words, he gives stress in the second syllable ***/dæ`dis/***.

In the final intonation of the utterance [11.1], SL uses rising pitch intonation. The word ***"sing"*** is produced by the pitch of the voice rising. The data shows that it is unnatural intonation because it is likely to be heard as a question sentence, though the utterance [11.1] is to be sung. SL takes 03 seconds 07 milliseconds to produce the utterance [11.1].

After AJ tells SL that his daddy is not beside SL, SL sings with fast frequency. It happens in the utterances [11.3] and [11.6]. His utterances are influenced by negative condition. SL wreaks his angry by singing with quick tone. He gets angry because he does not like AJ says that his daddy is not beside him. This condition can be categorized as psychological pressure.

The data shows that in the final pitch of the utterance [11.3], SL uses falling pitch. But in the final pitch of the utterance [11.6], he uses rising pitch. The word ***"sing"*** is uttered with the pitch of the voice rising. He takes 02 seconds 14 milliseconds to produce the utterance [11.3] and takes 02 seconds 85 milliseconds to produce the utterance [11.6].

The graphic of the utterances [11.1], [11.3], and [11.6] can be seen as below:



The graphic shows the intonation of the utterance [11.1], the utterance [11.3], and the utterance [11.6]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker.

4.1.2.12 Data analysis XII

The utterance *left. left on Kenwood, left…*[12.2] is produced when SL: gives direction to AJ the way of SL's home. As an autistic child, SL has advantage that are memorizing some routes or map and doing puzzle. The utterance [12.2] consists of phonological disorder and voice disorder. In this utterance, SL produces the word ***"left"*** thrice. First, the word ***"leefft"*** is produced too much and slowly. SL makes phonological disorder and voice disorder on that word. Sound ***/ee/*** is produced too much. He produces it with long sound of vowel ***/ee/***, whereas he makes phonological disorder namely addition in producing sound ***/ff/***. He adds sound ***/ff/***. Therefore it is sound as like it has double sound of letter ***/f/***. In the first word of ***"leefft"***, SL does not give stress on it. It is unleveled stress. His intonation is also unnatural. It is expressionless, too slow and flat.

The second utterance of the word ***"left"*** is not improper as the first utterance. Although it is also slow and smooth, but it is shorter than before. Here, SL just makes voice disorder. He produces the sound ***/ee/*** too much. SL gives stress in the first syllable of the word ***"leeft"/leeft/***.

The third utterance of the word ***"left"*** is the slowest one than in the first and the second utterance. He makes phonological disorder and voice disorder in producing the word ***"left"***. He utters sound ***/ee/*** too much. Also, he produces sound ***/f/*** with double letter ***/ff/***. it is called addition. His intonation and stress are unnatural. He produces it with very long and flat intonation. The word is unleveled stress.

When SL utters the word ***"on"/ n/*** , he makes phonological disorder namely substitution. He substitutes sound / / by sound ***/ɔ:/***. Actually vowel ***"o"*** / / is produced by short pronunciation, but in fact SL produces it with long ***"o"/ɔ:/***. SL produces it with slow intonation, therefore it may change the pronunciation of that letter. In producing the word ***"Kenwood"***, he also makes phonological disorder. He utters the word ***"Kenwood"*** with very smooth intonation. The first syllable is produced with fast intonation but the second syllable is produced with long pronunciation. Here, in the second syllable he makes voice disorder. He produces the sound ***/u:/*** with long pronunciation. It is unnatural pronunciation.

The utterance [12.2] is complete sentence. SL produces it to command AJ to do something. It is more suitable if SL uses high intonation. But he produces it with slow and flat intonation. In the final utterance, there is no

falling or rising pitch which shows whether the utterance belongs to question, exclamation, or statement. He also does not give stress in the words he produces except the second utterance of the word ***"left"***. The utterance [12.2] can be categorized as robotic sounding speech. SL takes 05 seconds 46 milliseconds to produce the utterance [12.2].

SL makes phonological disorder namely assimilation in the utterance [12.4]. He assimilates the sound **/j/** and **/s/**. Sound **/j/** is part of voiced affricative alveopalatal, it is produced by the front of the tongue is raised to an area between the alveolar ridge and the palate. Whereas the sound **/s/** is part of voiceless fricative alveolar, it is produced by the tip of the tongue makes contact with the alveolar ridge. It is difficult to SL to differentiate the place of articulation of sound **/s/**. He produces sound **/s/** is the same as sound **/j/.** Therefore, he joins two different pronunciations becoming one pronunciation. There is no pause or juncture between sound **/j/** and **/s/**.

The utterance *Howard Avenue to "J" street* [12.4], SL gives proper syllable in every word except ***"street"***. He just gives primary stress in the first syllable of sound **/j/**, but he does not give any stress in the word ***"street"***. He produces sound **/j/** and ***/stri:t/*** becoming one word or pronunciation.

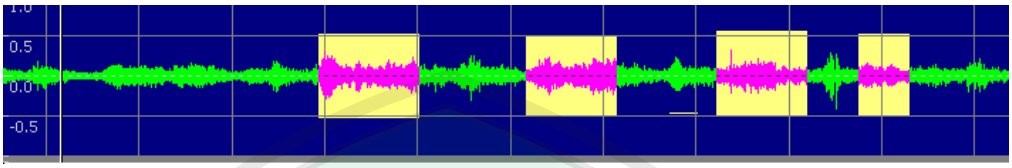
Moreover SL gives unnatural intonation in the final word of the utterance [12.4]. He produces the word ***"street"*** with flat intonation. He does not use falling or rising pitch. It makes the utterance [12.4] seems flouting. He takes 04 seconds 43 milliseconds to produce the utterance [12.4].

The utterance [12.6] is also produced by SL in giving direction to AJ. SL makes phonological disorder namely substitution in producing the sound ***"e"*** of the word ***"west" /west/***. SL substitutes sound ***/e/***, with short pronunciation, by sound ***/e:/***, long ***"e"***. He also produces the word with unleveled stress.

The data shows that in the first segment of the word ***"third" /θθɜ:d/***, sound ***/θ/***, is produced too much. He makes voice disorder on that word. The sound ***/θ/*** is produced with long vibration and it is too longer. Also, this word is produced with unleveled stress. Besides voice disorder, the researcher finds phonological disorder namely deletion and assimilation in producing the word ***"third"***. He deletes final sound of ***/d/***. After producing the sound ***/ɜ:/***, he immediately produces sound ***/s/***, is part of the word ***"street"*** . Here, SL assimilates the word ***"third"*** and ***"street"***. In producing the utterance *to west twenty-third street* [12.6], SL uses flat and slow intonation. He also gives flat pitch in the final word of his utterance. He takes 04 seconds 52 milliseconds to produce the utterance [12.6].

When SL produces the utterance *Simon is going home* [12.8], he makes phonological disorder namely substitution. The researcher finds substitution in producing the word ***"home" /hə m/***. The sound ***/ə /*** is substituted by sound ***/ɔ:/***. He gives proper stress in most the words he produces. But in the final word of this sentence, he uses flat intonation. Therefore, the utterance [12.8] sounds flouting, not complete sentence. He takes 04 seconds 28 milliseconds to produce the utterance [12.8].

The graphic of the utterances [12.2], [12.4], [12.6], and [12.8] can be examined as below:



The graphic shows the intonation of the utterance [12.2], the utterance [12.4], the utterance [12.6], and the utterance [12.8]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker.

4.1.2.13 Data analysis XIII

The utterance *mommy, Simon is home, mommy, Simon is home. Simon is home* [13.2] is produced when SL enters his home after going out. Here, he makes stereotyped and repetitive utterance. He always produces the same utterance while entering his home. The utterance [13.2] is divided into three parts [13.2.a], [13.2.b], and [13.2.c]. It makes easier in analysis.

The utterance *mommy, Simon is home* [13.2.a] SL uses expressionless intonation. His intonation is flat. There is no meaningful stress in every syllable. Actually he gives stress in each phoneme but it seems like he does not, it is because he produces it in slowly utterance or pronunciation. He also gives wrong stress in pronouncing the word ***"mommy".*** He gives stress in the last syllable ***/mɔ`mii/***. When he produces letter ***/ii/*** is too long. It belongs to articulation disorder ad phonological disorder namely addition.

SL also makes speech disorder namely voice disorder. There is no pause when he produces the word ***"mommy"*** and ***"Simon"***. He joins two words ***"mommy"*** and ***"Simon"[mɔ`mi:'sa mə n]***. He gives primary stress in the last syllable of ***"mommy"*** and the first syllable of ***"Simon"***. It creates close juncture.

The word ***"is"/ (z)***/ is produced stronger than he produces the word ***"home"/hə m/.*** It is produced too slowly and the stress of the word is not clear. In the end of this sentence seems there is no punctuation (whether full stop or comma). Therefore the sentence is like flouting sentence.

The first segment of word ***"simon" /s/*** is part of fricative consonant, SL produces sound ***/s/*** by rising the front part of the tongue to the bony tooth ridge. He also produces it with vibration in the front part of the tongue touches the alveolar ridge, though letter ***/s/*** is part of voiceless fricative consonant.

The intonation of SL's utterance tends to be slowly and flat. He takes 01 second 74 milliseconds to produce the utterance [13.2.a]. The stress in every syllable is unusual stress. He gives raise intonation in the end of the sentence.

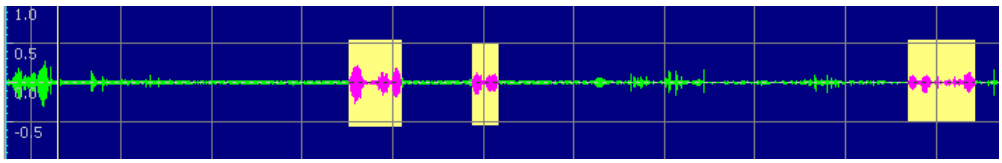
The utterance *mommy, Simon is home* [13.2.b] is the same sentence and analysis of the utterance [13.2.a]. Just only he uses high intonation in producing the word ***"mommy"***. It is because there is no answer from his mommy, therefore he calls her loudly whether his mommy will answer him. He makes improper stress in producing the word ***"mommy"***. He gives stress in the second syllable ***/mɔ`mi:/***. He takes 02 seconds 95 milliseconds to produce the utterance [13.2.b].

SL produces the utterance *Simon is home* [13.2.c] with hopelessness. He calls his mother twice but there is no answer. The utterance [13.2.c] is the same sentence with utterance [13.2.a] and the utterance [13.2.b] but he produces the utterance [13.2.c] more slowly and flat than the utterance [13.2.a] and the utterance [13.2.b]. The analysis is same with the utterance [13.2.a], but he just uses slowest intonation than in the utterance [13.2.a]. He takes 02 seconds 50 milliseconds to produce the utterance [13.2c].

Besides the utterance [13.2], in producing the utterance *very hot, sip it slowly* [13.4] SL also makes stereotyped and repetitive speech when he wants to drink a cup of hot chocolate. Here, SL makes substitution in the word ***"hot"*** and ***"slowly"***. SL pronounces the word ***"hot" /h t/***, the sound / / is substituted by the sound ***/ɔ:/***. He pronounces the word ***"hot"*** with slow intonation, therefore it changes the sound / /. SL also makes substitution when he pronounces the word ***"slowly" /slə :li:/***. Here, SL makes two error substitutions; first, when he substitutes sound ***/ə /*** by sound ***/ɔ:/***. Second, error substitution is in the final phoneme of ***/slə :li:/*** sound ***/i:/***. In this case, SL substitutes sound / / by sound ***/i:/.*** As analysis above, SL produces the word by slow intonation, therefore it causes substitution.

SL also makes voice disorder. He gives unnatural stress in every syllable of most the words. The word ***"very"/ve`r /*** is stressed in the second syllable. SL gives stress in the first syllable when he pronounces ***/`slə :li:/***. He takes 04 seconds 28 milliseconds to produce the utterance [13.4].

The graphic of the utterances [13.2] and [13.4] can be examined as below:



The utterance [13.2] The utterance [13.4]

The graphic shows the intonation of the utterance [13.2] and the utterance [13.4]. The wave in the box is the intonation produced by SL. The green wave is the music tone.

4.1.2.14 Data analysis XIV

The utterance *you are…a stranger* [14.2] is produced when he is asked by someone that he does not recognize before. He makes stereotyped and repetitive utterance. He always says ***"you are …a stranger"*** when he talks to someone that he does not know. Here, SL makes phonological disorder namely assimilation between the word ***"are"*** sound ***/`ə(r)/*** and article ***"a"*** sound ***/ə:/***. He joins both words becoming one pronunciation ***/a:/***. Sound ***/a(r)/*** as an auxiliary should be produced in high pitch than sound ***/ə:/*** as an article, because an article must become weak stress whereas an auxiliary usually in primary stress.

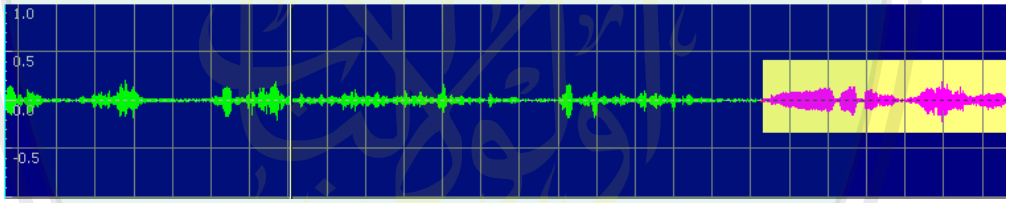
The first segment of the word ***"stranger"*** sound ***/s/*** SL produces it too strong and with long hissing. Sound ***/s/*** is part of voiceless fricative alveolar. But SL produces it in voiced fricative alveolar.

The data shows that the intonation and the prosody of SL's utterance are flat and smooth. Moreover, he does not give any proper stress in every word he produces. Though the utterance he produces is for stating disagreeing

opinion. But he produces it expressionless. Also in the final word of his utterance, his pitch does not show that the word ***"stranger"*** is his final utterance. So the utterance is flouting. It is because he produces the utterance too slow and he makes flat pitch, it means that he neither uses rise-fall nor fall-rise tone in his final utterance.

SL takes 03 seconds to produce the utterance [14.2]. He makes phonological disorder namely assimilation when he produces the utterance [14.2]. The intonation he used is flat and he makes improper stress in every syllable.

The graphic of the utterance [14.2] can be seen as below:



The utterance [14.2]

The graphic shows the intonation of the utterance [14.2]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker. It can be seen that SL's intonation is more powerful than the intonation of other speaker. It is influenced by the situation. He feels uncomfortable because he talks to a stranger. This situation is categorized as psychological pressure.

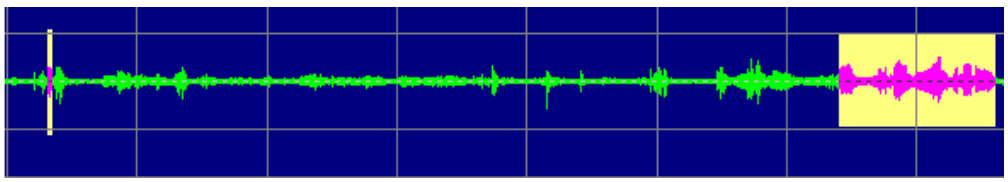
4.1.2.15 Data analysis XV

SL is keen on puzzle. AJ asks SL to help him doing a puzzle. SL makes sure that he is asked by AJ to do a puzzle (the utterance *Puzzle?* [15.2]). Here,

his articulation is clear. But he makes voice disorder in producing the utterance [15.2]. He gives improper stress in the word ***"puzzle"***. The proper stress is in the first syllable, but he gives stress in the second syllable ***/pʌ`zl/***. Although he gives improper stress but he uses proper intonation in the word ***"puzzle"***. He takes 01second 02 milliseconds to produce the utterance [15.2].

The utterance *today: 12.00. The Wrigley Building* [15.4] is produced when SL reads what it is said in the puzzle. In producing the word ***"today"*** SL makes phonological disorder namely substitution. In the final sound of the word ***"today"/tə`de /***, sound ***/e /*** is substituted by the sound ***/ei:/***. Actually sound ***/e /*** is produced with short pronunciation but SL produced it with long pronunciation. It is because he produces the utterance [15.4] with slow intonation. Furthermore, It happens when he produces the words ***"twelve"*** and ***"building"***. Sound / / in the word ***"twelve"*** is substituted by sound ***/i:/***. Then, sound / / in the second syllable of the word ***"building"*** is substituted by sound ***/i:/***. Besides phonological disorder, SL makes voice disorder. He uses unnatural intonation in producing the utterance [15.4]. His intonation is too slow and flat. But he gives stress proper stress in most the words. He takes 06 seconds 45 milliseconds to produce the utterance [15.4].

The graphic of the utterance [15.2] and the utterance [15.4] can be revealed as below:



The utterance [15.2] The utterance [15.4]

The graphic shows the intonation of the utterance [15.2] and the utterance [15.4]. The wave in the box is the intonation produced by SL. The green wave is the intonation of other speaker.

4.2 Discussion

In this discussion, the data analysis is used to characterize the components of research concerned proposed on the first chapter, such as the kinds of expressive language disorder of Simon Lynch as an autistic child in *Mercury Rising* film.

The data analysis above shows that as an autistic child Simon Lynch has some kind disorders in expressive language. His utterances can be classified as phonological disorder, articulation disorder, voice disorder, and language disability as autistic child; repetitive and stereotyped utterances, robotic sounding speeches and ritualistic question and answer. It can be concluded that voice disorder is mostly found in Simon Lynch's utterances.

4.2.1 Phonological disorder

Phonological disorder happens if someone speaks by not using the conventional rules for his or her language but developing their own. Phonological disorder involves a difficulty in learning and organizing the sounds needed for clear speech, reading and spelling. It is characterized by failure to use speech sounds, and also it involves a difficulty in learning and organizing the sounds, therefore the sound produced is unclear. The

phonological disorder characteristics are divided into failure to produce and use sound appropriately, then substituting one sound for another, omitting sounds, assimilation and addition sound.

From the analysis, it is found that there are several phonological disorders which are uttered by Simon Lynch namely substitution, addition, assimilation, and deletion sound. It can be concluded that the phonological disorder mostly found is substituting one sound for another.

4.2.2 Articulation disorder

Articulation disorder is speech sound errors that do not change in different word contexts. These errors occur during the production of isolated speech sounds (phonemes) and are thus misarticulated at the syllable and word levels as well. The child has difficulty saying particular consonants and vowels. One kind of language production of Simon Lynch is articulation disorder. Someone who has articulation disorder can be hard to understand because they say sounds incorrectly. Simon Lynch often utters the speech that is primarily unintelligible and difficult to understand. In English there are seven major points at which the mouth can be constricted, there are many kinds of articulation disorder which are uttered by Simon Lynch in *Mercury Rising* film, namely: vowels and consonants (alveolar, alveopalatal, labiodental, nasal, and interdental).

From the analysis above, it is shown that alveolar is mostly found in Simon Lynch's utterances, and alveopalatal sound is rarely used.

4.2.3 Voice disorder

Voice disorder happens when people say the voice improperly. Even normal people often do this. Voice disorder includes talking too much or loudly, using unnatural intonation/pitch, using improper stress, and producing unclear words. The symptom of people have voice disorder can be found if he or she has improperly in producing sound, then talking too long, using unnatural pitch or stress in his or her utterances like in Simon Lynch's utterances as follow:

Simon Lynch's utterances in *Mercury Rising* film show improper sound, he also talks too long and uses unnatural pitch. Simon Lynch often produces his utterances with loud and quick intonation because he is in uncomfortable situation. It may cover his feelings. Simon Lynch often produces utterances in talking too long, meanwhile grumbling unclear words is rarely found.

4.2.4 Language disability as an autistic child

Problem with language and communication may play prominent role in autism. In particular, although the speech of autistic children is usually clear, it often consists of memorized lines parroted back in seemingly inappropriate situations. When creativity in producing speech found in normal children, it is conspicuously absent in autistic language. Furthermore, the speech of autistic children is mostly like robotic sounding speech, they lack in the stress and intonational patterns of everyday speech. Besides, they often produce same or ritualistic answers when someone asks them some questions.

The data analysis shows some of the language disabilities as an autistic child in Simon Lynch's utterances; they are repetitive and stereotyped utterance, robotic sounding speeches and ritualistic question and answer. The analysis leads to all of the language disabilities are mostly found in Simon Lynch's utterances.

CHAPTER V

CONCLUSION AND SUGGESTION

After presenting the findings and the discussion in the preceding chapter, the research derives conclusion and provides some suggestions to the readers, especially the people who concern with expressive language disorder of the autistic child and also the next researchers when they are going to conduct research in this field.

5.1 Conclusion

Referring to all the findings discussed, this study concludes that from the data that are taken from Simon Lynch's utterances in *Mercury Rising* film, it is found some kinds of expressive language disorder namely phonological disorder, articulation disorder, voice disorder, and also language disabilities as an autistic child. Here is the brief conclusion of expressive language disorder found:

a. Phonological disorder

Phonological disorder occurs when a child does not develop the ability to produce some or all sounds necessary for speech that are normally used at his or her age. Therefore, phonological disorder involves a difficulty in learning and organizing all the sounds needed for clear speech, reading

and spelling. Based on analysis above, the research finds some phonological disorders which are produced by Simon Lynch, they are substitution, addition, assimilation, and deletion sound. It can be concluded that the phonological disorder mostly found is substituting one sound for another.

b. Articulation disorder

In essence, an articulation disorder is a speech disorder that affects the phonetic level. Simon Lynch has difficulty saying particular consonants and vowels. In the first segment of the word, he is often difficult to produce the sound of consonant. He usually produces the sound with long hissing or vibration. In the contrary, he produces long pronunciation for particular vowels found in the last segment. Here, the data finds that Simon Lynch often produces alveolar sound.

c. Voice disorder

This disorder happens when someone does not produce the voice correctly or the voice is not used correctly. These include talking too long or too loudly, grumbling unclear words, using an unnatural pitch or using unnatural stress. From analyzing this film, Simon Lynch's utterances can be categorized as voice disorder. He often produces the word with long sound, grumbles unclear words, and uses unnatural pitch or stress. But if he faces uncommon condition, his intonation is powerful. He also uses proper stress. These behaviors may cover his feeling. This condition

belongs to psychological pressure.

d. Language disability as an autistic child

Autistic children have unique language, they often produce repetitive and stereotyped utterances. Furthermore, the speech of autistic children is mostly like robotic sounding speech, they lack in the stress and intonational patterns of everyday speech. Besides, they often produce same or ritualistic answers when someone asks them some questions. The data find some of the language disabilities as an autistic child in Simon Lynch's utterances; they are repetitive and stereotyped utterance, robotic sounding speeches and ritualistic question and answer. The analysis leads to all of the language disabilities are mostly found in Simon Lynch's utterances.

To sum up, the expressive language disorder of the autistic child refers to the uniqueness of the speech which distinguishes from normal child. Therefore, nobody is perfect. However, God still gives sufficiency and frailty in every person, as told in Q.S An-Nisa': 32. One of the frailties also refers to human's speech disorder which is categorized as language disorder.

5.2 Suggestion

Since this study emphasizes the specific case—expressive language disorder by using psycholinguistic approaches to analyze the language production of the autistic child in *Mercury Rising* film, it may give a

contribution on the improvement of understanding the language studies, especially on psycholinguistics, expressive language disorder.

Furthermore, there are several suggestions based on the result of the study. First of all, it is suggested to the people to adjust their self when make social interaction with autistic child. It is better to them to understand that autistic child is lack of expressing and understanding the language. Therefore, they have to simplify their language when communicate with autistic child in order the autistic child understand what they talk to her/him.

Second, for the parents of autistic child just be optimist. Because, recently it is found many institutes which are handled autistic disorder. But when they feel not able to handle their child, it is suggested that they ought to send their child to autistic institute. In spite of that, it is better to the parents to take an important role in recovery their disorder. They must be organizer than the therapists whom take a part in handling the autistic child. Related to this matter, it is necessary to make cooperation between therapists and parents. Furthermore, the most important thing is making interaction on both they and the autistic child, because it will adjust the autistic child to make communication with other people.

Last, it is suggested to the further researchers who have the same interest in language disorder, especially expressive language disorder of the autistic child to observe an autistic girl who is native child of English. In addition, it is expected that the result of this study is going to lead the further researchers

who conduct the same field of research as the reference or comparison that might be relevant to their researches.

BIBLIOGRAPHY

.

Academy for Educational Development and the Office of Special Education Programs. Update April 2000. *Info about Speech & Language Disorders*, (Online), Fact Sheet Number 11 (FS11), (http://www.kidsource.com/NICHCY/speech.html, accessed at 14 April 2007).

Accardo, Pasquale J.; Blondis , Thomas A.; Whitman, Barbara Y.; Stein, Mark A. *Attention Deficits and Hyperactivity in Children and Adults*. New York: Pediatric habilitation.

Anonymous. *Autism.* CD-ROOM: Britannica Encyclopedia-Digital, 2003.

Anonymous. *Autism*, Microsoft ® Encarta ® Reference Library 2002.

Anonymous. *Broca's Area and Wernicke's Area,* (Online). (http://www.nidcd.nih.gov/health/voice/aphasia.asp, accessed at 14 June 2007).

Anonymous. 2003. *Misteri Penyebab Autisme: 17th Edition, May.* Jakarta: Gatra Magazine.

Anonymous. *Question and Answer about Child Language*, (Online), (http://www.kidsource.com/ASHA/child_language.html, accessed at 14 April 2007).

A group of Muslin Scholars. 1998. *An Enlightening Commentary into The Light of the Holy Qur'an : Volume III.* Iran: Imam Ali Library and Research Centre for Islamic and Scientific Studies.

Berg, Bruce L. 1989. *Qualitative Research Methods for the Social Science.* Boston: Allyn and Bacon.

Blakeslee, Sandra. 2002. *Increase in Autism Baffles Scientists,* (Online). (http://www.autisminfo.com, accessed at 20 June 2007).

Carrol, David W. 1985. *Psychology of Language*. California: Brooks / Cole Publishing Company.

Clark, H.H. and Clark, E.V. 1977.*Psychology and Language: An introduction to psycholinguistics*. New York: Harcourt Brace Jovanovich, Inc.

Denzin, Norman K; Lincoln, Ivonna S. 1994. *Handbook of Qualitative research.* London: Sage publication Ltd.

Eric. 2007. *Phonological Production and Perception in Verbal Autistic, Normal, and Mentally Retarded Subjects. Paper and Reports on Child Language Development, No. 12.* (Online). (http://eric.ed.gov/ERICWebPortal/autism, accessed at 21 June 2007).

Fauziyah, Nailul. 2003. *A Pragmatic Study on Speech Acts used by Autistic Children, Thesis.* Malang: State Islamic University of Malang Published.

Field, John. 2003. *Psycholinguistics*. London and New York: Routledge, Taylor & Francis Group.

Fromkin, Victoria, david Blair and peter Collins. 1999. *An Introduction to Language; 4th Edition.* Florida: Harcourt.

Greenspan, Stanley, M. D and Serena Wieder, PH. D. 2006. *The Child with Special Needs*. Jakarta: Yayasan Ayo Main.

Hadis, Abdul. 2005. *Pendidikan Anak Berkebutuhan Khusus Autistik.* Jakarta: Alfabeta.

Handojo, Y., DR. Dr. 2003. *Autisma.* Jakarta: PT Bhuana Ilmu Populer Kelompok Gramedia.

Hitti, Miranda. 2004. *Gender Affects Language in Autistic Children ; Brain's Language Area Differs in some Autistic Boys.* (Online) (http://webmd.com/content/article/95/103203, accessed at 14 April 2007).

Itqiana, Naily. 2006. *Language Disorder of Stuttered Man Aged 26, Thesis.* Malang: State Islamic University of Malang Published.

Jacobs, Dale W. 2005. *The World Book Encyclopedia; A. Volume I.* Chicago: World book, Inc. A Scott Fetzer Company.

Jordan, Rita and Stuart Powell. 1995. *Understanding and Teaching Children with Autism.* Singapore: Wiley.

McCandless Md, Jaquelyn. 2003. *Children with Starving Brains : Second Edition.* Jakarta: PT Gramedia Widiasarana Indonesia.

Mukminah, Isroatul. 2007. *Psycholinguistic Study on Speech Disorder of Cerebal Palsic Man in Door to Door Film, Thesis.* Malang: State Islamic University of Malang Published.

Pamelot. 2005. *mercury Rising- what an ironic Title for an Autism Movie*, (Online). (http://www.amazon.com, accessed at 14 April 2007).

Subyakto, Sri Utari and Nababan. 1992. *Psikolinguistik : Suatu Pengantar*. Jakarta: PT Gramedia Pustaka Utama.

Suryana, Agus. 2004. *Terapi Autisme, Anak Berbakat dan Anak Hiperaktif*. Jakarta: Progres.

Sutadi, Rudy. 1997. *Autisma : Gangguan Perkembangan Pada Anak.* Jakarta: Yayasan Autisma Indonesia.

Taylor, Insup and M. Martin Taylor. 1990. *Psycholinguistics : Learning and Using Language.* USA: Prentice-Hall International, Inc.

Woodward, Heather. 2006. *Padded Room at Heart of Autism Controversy*. (Online). (http://autism.org/adviceforparents.html, accessed at 20 February 2007).

Appendix 1. Table of Data Analysis

Table I. Phonological Disorder

No.	Utterance	Phonological Disorder				Note*
		SB	DL	AS	AD	
1	*Right on* ***wessterrn….***				✓	[01.1]
2	***Lefft*** *on* ***Belmooont….***	✓			✓	[01.1]
3	*Right* ***oon Halssted…***				✓	[01.3]
4	***Lefft*** *on* ***fullerton…***				✓	[01.3]
5	*Good Morning,* ***cher…***		✓			[02.2]
6	*Good Morning,* ***cher…***		✓			[02.4]
7	***Mommii..***	✓			✓	[03..1]
8	***Simon is home!***	✓		✓		[03.1]
9	*Hi,* ***Mom..***	✓	✓			[03.3]
10	*It's* ***very hot...***	✓				[04.2]
11	*Sip it* ***slowly***	✓				[04.2]
12	***You are….(a) stranger***	✓		✓		[05.2]
13	***Puzzle nine-nine…***	✓				[05.4]
14	***No,no,no, no!***				✓	[06.2]
15	***Mommy!***	✓				[07.1]
16	***Daddy!***	✓				[07.1]
17	*Mom****my****! Mom****my****!*	✓				[07.4]
18	***Daddy...***	✓				[07.6]
19	***Art is (a) stranger! Art is (a) Stranger!***		✓	✓		[07.8]
20	***Art is (a) stranger! Art is (a) Stranger!***		✓	✓		[07.8]
21	***Eight…***	✓				[08.6]
22	***Ssevenn…***				✓	[08.6]
23	***Ssix..***	✓			✓	[08.6]
24	***FFive..***	✓			✓	[08.6]
25	***Ffour…***				✓	[08.6]
26	***Three..***	✓				[08.6]
27	***Two..***	✓				[08.6]
28	***One..***				✓	[08.6]
29	***Mommy!***	✓				[09.7]
30	***Daddy...***	✓				[09.7]
31	***Nno..!***				✓	[10.7]
32	***Art is (a) Stranger…!***		✓	✓		[10.7]
33	***Daddy is*** *going to sing.*			✓		[11.1]
34	***Lefft..***				✓	[11.6]
35	*Left* ***on Kenwood***	✓			✓	[11.6]
36	***Lefft…***				✓	[11.6]]
37	*Howard Avenue* ***to "J" street***			✓		[12.4]
38	*To* ***West*** *Twenty-****Third Street***			✓		[12.6]
39	***Mommy****, Simon is home*				✓	[13.2.a]
40	***MommySimonis*** *going home…*			✓		[13.2.b]
41	***Today: 12.00.***	✓				[15.4]
42	*The Wrigley* ***Building..***	✓				[15.4]

Note:		**SB**	=	**Substitution**
		DL	=	**Deletion**
		AS	=	**Assimilation**
		AD	=	**Addition**
***)**	**Based on chronological data**			

Appendix 1. Table of Data Analysis

Table II. Articulation Disorder

No	Utterance	Manner of articulation			Place of articulation					Note*
		Affricate	Fricative	Nasal	VW	AL	LBD	ITD	ALP	
1	*Good Morning, **ch**er…*	✓							✓	[02.2]
2	*Good Morning, **ch**er…*	✓							✓	[02.2]
3	*Momm**ii..***				✓					[03..1]
4	***S**imon is home*		✓			✓				[03..1]
5	*It's very **hot...***				✓					[04.2]
6	*Sip it **slowly***				✓					[04.2]
7	*You are….(a) **stranger***		✓			✓				[05.2]
8	*Mom**my**! Mom**my**!*				✓					[07.4]
9	*Da**ddy...***				✓					[07.6]
10	*Art **is** **(a) stranger**! Art **is** (a) **Stranger!***		✓			✓				[07.8]
11	***Ssevenn…***		✓	✓		✓				[08.6]
12	***Ssix..***		✓			✓				[08.6]
13	***FFive..***		✓				✓			[08.6]
14	***Ffour…***		✓				✓			[08.6]
15	***Three..***		✓					✓		[08.6]
16	***Nno..!***			✓						[10.7]
17	*Howard Avenue **to "J" street***		✓			✓			✓	[12.4]
18	*To **West** Twenty-**Third Street***		✓					✓		[12.6]
19	***Mommy**, Simon is home*		✓			✓				[13.2.a]
20	***MommySimonis** going home…*		✓			✓				[13.2.b]
21	*You are….(a) **stranger***		✓			✓				[14.2]

Note: **VW = Vowel**
AL = Alveolar
LBD = labiodental
ITD = Interdental
ALP = Alveopalatal
***) Based on chronological data**

Table III. Voice Disorder

No	Utterance	Voice disorder				Note *
		TL	UI/UP	IS	UW	
1	*Right on* ***wessterrn….***	✓	✓			[01.1]
2	***Lefft*** *on* ***Belmooont….***	✓	✓			[01.1]
3	*Right* ***oon Halssted…***	✓	✓			[01.3]
4	***Lefft*** *on* ***fullerton…***	✓	✓			[01.3]
5	***Uh…huh..***				✓	[01.5]
6	*Good Morning,* ***cher…***		✓	✓		[02.2]
7	*Good Morning,* ***cher…***		✓	✓		[02.4]
8	***Mommii..***			✓		[03.1]
9	***Simon is home!***		✓	✓		[03.3]
10	*Hi,* ***Mom..***		✓	✓		[04.2]
11	*It's* ***very hot...***		✓	✓		[04.2]
12	*Sip it* ***slowly***		✓	✓		[05.2]
13	***You are….(a) stranger***	✓	✓	✓		[05.4]
14	*Puzzle* ***nine-nine…***		✓	✓		[06.2]
15	***No,no,no, no!***	✓				[07.1]
16	***Mommy!***		✓	✓		[07.1]
17	***Daddy!***		✓	✓		[07.4]
18	*Mom****my****! Mom****my****!*		✓	✓		[07.4]
19	***Daddy...***		✓	✓		[07.6]
20	***Art is (a) stranger! Art is (a) Stranger!***	✓				[07.8]
21	***Art is (a) stranger! Art is (a) Stranger!***	✓				[07.8]
22	***Shh….shh…shh…***				✓	[08.1]
23	***Eight…***		✓			[08.6]
24	***Ssevenn…***	✓	✓			[08.6]
25	***Ssix..***	✓	✓	✓		[08.6]
26	***FFive..***	✓	✓	✓		[08.6]
27	***Ffour…***	✓	✓	✓		[08.6]
28	***Three..***		✓	✓		[08.6]
29	***Two..***		✓	✓		[08.6]
30	***One..***	✓	✓			[08.6]
31	***Oww….***				✓	[09.2]
32	***Hhhmmmm….***				✓	[09.4]
33	***Mommy!***	✓		✓		[09.7]
34	***Daddy...***	✓		✓		[09.7]
35	***Pasqual-ee…***	✓		✓		[10.3]
36	***Nno..!***	✓				[10.7]
37	***Art is (a) Stranger…! Art is (a) Stranger…!***	✓		✓		[10.7]
38	***Daddy is*** *going to sing.* ***Daddy is*** *going to sing..* ***Daddy is*** *going to sing*		✓	✓		[11.1]
39	***Lefft..***	✓	✓			[11.6]
40	*Left* ***on Kenwood***		✓			[11.6]
41	***Lefft…***	✓	✓			[11.6]
42	*Howard Avenue* ***to "J" street***		✓	✓		[12.4]
43	*To* ***West*** *Twenty-****Third Street***	✓	✓	✓		[12.6]
44	***Simon is going home***		✓	✓		[12.8]
45	***Mommy****, Simon is home*		✓	✓		[13.2.a]
46	***Mommy****! Simon is home*			✓		[13.2.b]
47	*Simon is home*		✓	✓		[13.2.c]
48	*It's* ***very hot..*** *Sip it* ***slowly.***		✓	✓		[13.4]
50	***You are….(a) stranger***	✓	✓	✓		[14.2]
51	***Today: 12.00.*** *The Wrigley* ***Building..***		✓	✓		[15.4]

Note **TL** = **Talking too long**

UI/UP = **Unnatural intonation/pitch**

IS = **Improper stress**

UW = **Unclear word**

***)** **Based on chronological data**

Table IV. Language Disability as an Autistic Child

No	Utterance	Language disability as an autistic child			Note*
		RSU	RSS	RQA	
1	*Right on **wessterrn….Lefft** on **Belmooont**….*		✓		[01.1]
2	*Right **oon Halssted… Lefft** on **fullerton…***		✓		[01.3]
3	***You are….(a) stranger***	✓		✓	[05.2]
4	***Mommy! Daddy! Mommy! Daddy!***	✓			[07.1]
5	*Mom**my**! Mom**my**!*		✓		[07.4]
6	***Daddy...***		✓		[07.6]
7	***Art is (a) stranger! Art is (a) Stranger!***	✓			[07.8]
8	***Art is (a) stranger! Art is (a) Stranger!***	✓			[07.8]
9	***Eight…***		✓		[08.6]
10	***Ssevenn…***		✓		[08.6]
11	***Ssix..***		✓		[08.6]
12	***FFive..***		✓		[08.6]
13	***Ffour…***		✓		[08.6]
14	***Three..***		✓		[08.6]
15	***Two..***		✓		[08.6]
16	***One..***		✓		[08.6]
17	***Mommy! Daddy...***	✓			[09.7]
18	***Art is (a) Stranger…!***	✓			[10.7]
19	***Lefft..** Left **on Kenwoo. Lefft…***		✓		[11.6]
20	***Mommy**, Simon is home*	✓			[13.2]
21	*It's **very hot...** Sip it **slowly***	✓			[13.4]
22	***You are….(a) stranger***	✓			[14.2]

Note **RSU** = **Repetitive and stereotyped utterance**

RSS = **Robotic sounding speech**

RQA = **Ritualistic question and answer**

***)** **Based on chronological data**

Appendix 2. Summary of Data Analysis

No	Utterance	Types of disorder				Notes
		PD	AD	VD	LD	
1	*Right on **wessterrn….***	✓		✓	✓	[01.1]
2	***Lefft** on **Belmooont**….*	✓		✓	✓	[01.1]
3	*Right **oon Halssted…***	✓		✓	✓	[01.3]

5	***Lefft** on **fullerton…***	✓		✓	✓	[01.3]
6	***Uh…huh..***	✓		✓		[01.5]
7	*Good Morning, **cher…***	✓	✓	✓		[02.2]
8	*Good Morning, **cher…***	✓	✓	✓		[02.4]
9	***Mommii..***	✓	✓	✓	✓	[03.1]
10	***Simon is home!***	✓	✓	✓	✓	[03.3]
11	*Hi, **Mom..***	✓		✓		[04.2]
12	*It's **very hot...***	✓	✓	✓	✓	[04.2]
13	*Sip it **slowly***	✓	✓	✓	✓	[05.2]
14	***You are….(a) stranger***	✓	✓	✓	✓	[05.4]
15	*Puzzle **nine-nine…***	✓		✓		[06.2]
16	***No,no,no, no!***		✓	✓		[07.1]
17	***Mommy!***	✓	✓	✓	✓	[07.1]
18	***Daddy!***	✓	✓	✓	✓	[07.4]
19	*Mom**my**! Mom**my**!*	✓	✓	✓	✓	[07.4]
20	***Daddy...***	✓	✓	✓	✓	[07.6]
21	***Art is (a) stranger! Art is (a) Stranger!***	✓	✓	✓	✓	[07.8]
22	***Art is (a) stranger! Art is (a) Stranger!***	✓	✓	✓	✓	[07.8]
23	***Shh….shh…shh…***			✓		[08.1]
24	***Eight…***	✓	✓	✓	✓	[08.6]
25	***Ssevenn…***	✓	✓	✓	✓	[08.6]
26	***Ssix..***	✓	✓	✓	✓	[08.6]
27	***FFive..***	✓	✓	✓	✓	[08.6]
28	***Ffour…***	✓	✓	✓	✓	[08.6]
29	***Three..***	✓	✓	✓	✓	[08.6]
30	***Two..***	✓		✓	✓	[08.6]
31	***One..***			✓	✓	[08.6]
32	***Oww….***			✓		[09.2]
33	***Hhhmmmm….***	✓		✓		[09.4]
4	***Mommy!***	✓	✓	✓	✓	[09.7]
35	***Daddy...***	✓	✓	✓	✓	[09.7]
36	***Pasqual-ee…***			✓		[10.3]
37	***Nno..!***		✓	✓		[10.7]
38	***Art is (a) Stranger…! Art is (a) Stranger…!***	✓	✓	✓	✓	[10.7]
39	***Daddy is** going to sing. **Daddy is** going to sing.. **Daddy is** going to sing*	✓		✓		[11.1]
40	***Lefft..***	✓		✓	✓	[11.6]
41	*Left **on Kenwood***	✓		✓	✓	[11.6]
42	***Lefft…***	✓		✓	✓	[11.6]
43	*Howard Avenue **to "J" street***	✓	✓	✓		[12.4]
44	*To **West** Twenty-**Third Street***	✓	✓	✓		[12.6]
45	***Simon is going home***	✓	✓	✓		[12.8]
46	***Mommy**, Simon is home*	✓	✓	✓	✓	[13.2.a]
47	***Mommy**! Simon is home*	✓	✓	✓	✓	[13.2.b]
48	*Simon is home*		✓	✓	✓	[13.2.c]
49	*It's **very hot..** Sip it **slowly.***	✓	✓	✓	✓	[13.4]
50	***You are….(a) stranger***	✓	✓	✓	✓	[14.2]
51	***Today: 12.00.** The Wrigley **Building..***	✓		✓		[15.4]

Note **PD** = **Phonological disorder**

AD = **Articulation disorder**

VD = Voice disorder

LD = Language disability as an autistic child

***) Based on chronological data**