

How to Cite:

Zong, F., & Zhen, S. X. (2021). The link between language and thought. *Macrolinguistics and Microlinguistics*, 2(1), 21–36.
<https://doi.org/10.21744/mami.v2n1.12>

The Link between Language and Thought

Frank Zong

University of Kent, Canterbury, United Kingdom

Silzia Xia Zhen

Hong Kong Polytechnic University, Kowloon, Hong Kong

Abstract---In essence, in communication activities, there is a process of producing and understanding speech. It can be said that psycholinguistics is the study of mental mechanisms that occur in people who use language, both when producing or understanding speech. In other words, in language use, there is a process of changing thoughts into codes and changing codes into thoughts. Speech is a synthesis of the process of converting concepts into code while understanding the message is the result of code analysis. Language as a form or result of a process and as something that is processed in the form of spoken or written language psycholinguistics is the study of humans as language users, namely the study of language systems that exist in humans who can explain how humans can capture other people's ideas and how they can express their ideas through language, either in writing or orally. Language skills that must be mastered by someone, this is related to language skills, namely listening, speaking, reading, and writing.

Keywords---language acquisition, language change, language use, linguistic cognitive, psycholinguistics, psychomotor domain, spoken words.

Introduction

All languages acquired are essentially needed to communicate. Psycholinguistics is the study of relations between our needs for expression and communications and the means offered to us by a language learned in one's childhood and later. Our need for expression and communication and the objects offered to us through the language we learn from childhood and later stages. Humans will only be able to say and understand one another in spoken words (Vita et al., 1995; Boroditsky, 2001). The language learned since childhood is not a neutral language in coding objective reality. Language has a subjective orientation in describing the world of human experience. This orientation then influences how humans think and say.

Visible behavior in the language is human behavior when speaking and writing or when he produces language, while invisible behavior is human behavior when understanding what is being listened to or read so that it becomes something he has or processes something he will say or write. From the description above, it can be concluded that the scope of Psycholinguistics is language acquisition, language use, language production, language processing, coding process, the relationship between language and human behavior, the relationship between language and the brain (Piantadosi et al., 2012; Bloom, 2000). Psycholinguistics includes language acquisition or acquisition, the relationship between language and the brain, the influence of language acquisition and language acquisition on the intelligence of the way of thinking, the relationship between encoding (coding process) and decoding (interpretation of code), the relationship between language knowledge with language use and language change).

Humans as language users can be considered as organisms whose activities are to reach the realms of psychology, both cognitive, affective, and psychomotor. The ability to use the language both receptively (listening and reading) or productively (speaking and writing) involves these three domains. Term cognitive comes from cognition whose equivalent knowing means knowing. In a broad sense, cognition is the acquisition, arrangement, and use of knowledge. In subsequent developments, the term cognitive became popular as one of the domains, domains/regions/fields of human psychology which includes human mental behavior related to understanding, consideration, problem-solving, information processing, intentionality, and belief.

This domain is centered in the brain which is also related to conation (will) and affection (feeling) related to the realm of taste. The cognitive domain centered in the brain is the most important domain. This domain is the source and controller of other psychological domains, namely the affective domain (taste) and the psychomotor domain (intention). The cognitive domain it is difficult to imagine a person can think. Without the ability to think, a person can't understand and believe in the benefits of the materials presented to him. Affective is a psychological domain that includes all

feeling phenomena such as love, sadness, joy, hate, and certain attitudes towards oneself and the environment. Meanwhile, psychomotor is the realm of psychology in which all physical deeds are concrete and easy to observe both in quantity and quality because they are open (Weist, 1989; Lupyran, 2012).

Some experts try to explain the form of the relationship between language and thought, or more narrowly, how language affects the human mind. Of the many characters who describe the relationship between language and thought, the author sees that Edward Sapir and Benjamin Whorf's explanations are widely cited by various researchers in examining the relationship between language and thought. Sapir and Whorf say that no two languages have anything in common to be considered the same social reality. Sapir and Whorf outline two hypotheses regarding the relationship between language and thought. The first hypothesis is the linguistic relativity hypothesis which states that differences in language structure are generally parallel to non-linguistic cognitive differences. Differences in language cause differences in the minds of people who use the language.

The second hypothesis is linguistic determinism which states that the structure of a language affects the way individuals perceive and reason about the perceptual world. In other words, the structure of human cognition is determined by the categories and structures that already exist in language. The influence of language on the mind can occur through habituation and the operation of formal aspects of language, such as grammar and lexicon. Whorf said, "grammatical and lexical resources of individual languages heavily constrain the conceptual representations available to their speakers". Grammar and lexicon in a language determine the conceptual representations that exist in the users of that language. In addition to habituation and the formal aspects of language, one of the dominant aspects in Whorf and Sapir's concept is the problem of language influencing categorization in human perception which will be the premise of thinking, as Whorf says the following:

"We divide nature by the lines drawn by our native language. We cannot find categories and types that we isolate from the world of phenomena because all of these phenomena are caught by each observer's face. In contrast, the world represents a kaleidoscopic flux full of impressions categorized by our minds, and this is the language system that exists in our minds. We divide nature, organize it into concepts, sort out the important elements. Language for Whorf guides social reality and conditions the individual's mind about a social problem and process. Individuals do not live in an objective world, not only in the world of social activities as they are usually understood, but are largely determined by certain language symbols which are the medium of social communication. No two languages are alike enough to represent the same reality. The world in which various people live is judged by Whorf as the same world but with different characteristics. In short, it can be concluded that the human view of the world is shaped by language so that because language is different,

the view of the world is different. Individuals selectively filter incoming sensory as programmed by the language they use. That way, people who use different languages have sensory differences as well (Ullman et al., 2012).

Complexity in speech and thought

In general, a complex thought is expressed in a complex sentence as well. This can also be interpreted if in expressing a sentence, complex thinking is needed. The complexity of meaning in a complex sentence arises because in the sentence there are very many propositions. The application of these propositions can act as a complementary clause to the main sentence, in addition, the sentence can be extended as long as each end of the sentence is a noun. In general, the psychology of a person is different. This can be seen from every symptom that is traced, for example when someone is angry. Everyone's anger certainly cannot be predicted with certainty, because the symptoms shown sometimes do not match the reality. For example, irritated people are not necessarily angry. Angry people, sometimes can be calm and even laugh (Papafragou, 2005; Ning et al., 2020). This proves that every state of the soul of a person is different.

Sometimes in a state of anger, a person can still express his sadness by speaking according to his wishes, whether conveyed to his close friends or even talking to himself without realizing it. This is because the way a person conveys when he is angry is different considering the characteristics of each person are different. Below will be presented the linguistic aspects of angry psycholinguistics expressed through conversation as follows.

Data analysis is divided into two parts. The first is the analysis of the structure of the conversational discourse. After analyzing the structure, it is followed by sociolinguistic analysis. This data analysis is a sequence analysis of conversation transcripts that will show whether there is an interpretation of the social meaning of the utterance or conversation. Is there a cultural presence of Javanese ethnicity as illustrated in the transcript of the conversation? The analyzed transcript is then related to the situation, whether the conversation takes place between traders, between sellers and buyers, and for buyers, they can be further divided into customers-not customers, ethnicitydifferent ethnicity. From this research hypothesis about code choice, social relations among market members can be formed.

Methods

Code-switching is divided into several types, namely; 1) Situational Code Switching; 2) Metaphorical Code Switching. The conversation between traders or between buyers and sellers in this market that occurs is situational code-switching, namely, codeswitching to achieve a momentary goal following the social setting of the

conversation, in this case, the goal is buying and selling with the setting in the market, the situation is informal. The level of formality decreases when the seller meets the seller, or the seller meets the customer.

In the flow of conversation, speech (T) contains conversational implicatures (IP) slides along with other T in the form of direct speech. To understand the existence of an IP, speakers need to process data in the form of (1) the conventional meaning of the words used and their references, if any; (2) the principle of cooperation (PK) and its maxims; (3) the linguistic context; (4) matters related to background knowledge; and (5) the fact that there are similarities between the four participants, both the speaker (n) and the speaker (t), and both of them can understand each other. Pragmatics is the study of meaning concerning speech situations (SU). Therefore, the necessary prerequisite for conducting a pragmatic analysis of T, including IP-loaded T, is a speech situation that supports the existence of a T in conversation. The speech situation includes the following elements: (1) speaker (n) and addressee (t); (2) context; (3) purpose; (4) speech acts or verbal acts; (5) speech (T) as a product of verbal acts; (6) time; and (7) place. Furthermore, to get to know more about pragmatic analysis and examples of its use, in this discussion sequentially discussed (1) context, (2) unit of analysis, (3) example of analysis, and (4) closing.

Context understanding is very necessary in pragmatic analysis. Why? Starting from this understanding of the context, the language units in an utterance can be explained. Context is all aspects related to the physical and social environment of an utterance. Context as background knowledge of speech that is shared by both n and by t and which helps t interpret the meaning of T. Thus, context can refer to T before and after the intended T, referring to the situation environment related to the habits of participants, customs, and community culture. Context can also refer to the physical, mental, and knowledge conditions in the minds of n and t. The elements of time and place are closely related to these things. Therefore, context plays a very big role in D. T always contains the goals to be achieved by n. Goals can be in the form of personal goals reflected by the proposition (P) on T or in the form of social goals such as obeying pragmatic principles in the form of PK and the principle of courtesy (PS).

Personal goals are usually achieved through social goals. In this case, Leech feels it is more appropriate to use the term purpose or function rather than using the meaning n means or n means to say something. Closely related to the purpose are speech acts, especially illocutionary acts or what is usually just called illocutions. The actor plays the role of negotiating a P between n and t in communication. While grammar deals with abstract static entities such as sentences (in syntax) and P (in semantics), pragmatics deals with speech acts or verbal performances that occur in a particular SU. Thus, pragmatics deals with language on a more concrete level than grammar. Three kinds of speech act, namely locutionary, illocutionary and perlocutionary. All three happened simultaneously. Locutionary links a topic with a description in an expression

(subjectpredicate). Illocutionary is the act of saying a statement, offer, question, and so on. Perlocutionary is the result or effect caused by the expression on t according to the situation and condition of the pronunciation of the expression. Linguistics elocutionary can be equated with predication, illocutionary with sentence form (based on its meaning), and perlocutionary with the intention of expression.

Based on Austin's idea, a student of Austin, suggests that a speech act supports three kinds of acts that occur simultaneously, namely (1) the act of uttering words (morphemes, sentences) (utterance act); (2) reference and predication which is called a propositional act; and (3) statements, questions, orders, promises, and so on are called illocutionary acts. Of the three types of acts, illocutionary acts or illocutionary acts in short then play an important role in pragmatic studies. The same thing that speech acts have an important position in pragmatics because speech acts are one of the units of analysis. The illocutionary act is the smallest unit of linguistic communication. He distinguishes five kinds of illocutionary acts, namely assertive, directive, commissive, expressive, and declaration illocutionary acts. Assertive illocutionary acts are illocutions that state the truth, for example: stating, proposing, boasting, complaining, expressing opinions, and reporting. Directive illocutionary acts are illocutions that produce effects in the form of actions taken by t, for example: ordering, ordering, begging, demanding, and giving advice. Commissive illocutionary acts are illocutions that make n bound to an action in the future, for example: promising, offering, and taking a vow. Expressive illocutionary acts are illocutions that express psychological attitudes towards those implied in the illocutionary, for example: thanking, congratulating, apologizing, criticizing, praising, and expressing condolences. The illocutionary act of declaration is an illocutionary act whose successful implementation results in conformity between the contents of P and reality, for example: firing, resigning, baptizing, naming, imposing punishment, excommunicating/disposing, and appointing employees (Imai et al., 2016; Gerrig & Banaji, 1994).

The unit of analysis in pragmatics which is the basic unit or the smallest unit in linguistic communication in accordance with the speech act proposed by Searle is the unit that supports the illocutionary and propositional (P). The unit in pragmatic analysis is called the pragmatic unit (SP). Each SP contains content in the form of a combination of illocutionary and P. It has been explained that pragmatics studies meanings that cannot be solved by semantics, namely meanings that appear in the context of using sentences in communication. Pragmatic analysis needs to be carried out to obtain a solution to the problem of meaning in T which contains IP. The pragmatic unit of an IP can be described through a problem-solving process for the problems encountered between n and t when n pronounces T so that in turn it can be drawn pragmatic implications that be the IP of a T. The problem-solving procedure requires human intelligence that can seek and find possible options based on contextual evidence. The problem solving procedure can be viewed from two points of view, namely from the point of view of n and from the point of view of t. From the

point of view of *n*, it can be used means-objective analysis which describes the initial state as the problem, the middle state, and the final state as the *n*-goal to solve the problem through a way that lies in the chain between the problem and the goal (Proudfoot, 2009; Piaget, 2000).

In order to obtain a more concrete picture, the following is an example of heuristic analysis. Analysis is carried out on IP X created by Reli on the following data. The results of hypothesis testing show that the consequences of C, D, E are in accordance with the contextual data. Thus, hypothesis B can be accepted. The interpretation of thesis B is that the utterances of X, It's Noon, Pa, which are produced by Reli include T with IP content. The T has the pragmatic implication of ordering, that is, Rally telling his father to get up. The result of IP interpretation as has been done with heuristic analysis is not very certain. The explanation of the implicature contains the nature of probability. What *n* means by its T can never be known with certainty. The observed condition factor, T, and the context lead to infer interpretations of the most likely probabilities. Interpreting power P a T is the same as guesswork or in sophisticated terms creating hypotheses. Even a good interpreter is not always able to make definite conclusions about the meaning of *n* because it often happens that a T is deliberately obscured by the speaker. This seems to be the case with the interpretation of IP for elementary school-aged children who are still in the process of controlling BI. One T that is a BL expresses an SP. SP can imply one or more other SP as a pragmatic implication that manifests IP in self t.

Results and Discussions

In different societies people not only speak different languages and dialects, but also different ways of speaking. In some societies normal conversation contains arguments, raised voices, and prominent emotions. In other societies people avoid arguing, speak in a soft voice and keep their manners. In some countries in the world speaking while other people are speaking is considered rude, while in some other countries this is even considered as part of the ability to speak. In all cross-cultural research, the method problem that is ruled out is ethnocentric bias, namely understanding the discourse practices of other cultures through the prism of one's own culture. There is a need to find a universal perspective of language that is independent of its discourse structure and cultural values (Li & Abarbanell, 2018; Barsalou et al., 2003).

In this way some of the main dimensions of cross-cultural differences in discourse will be described. In all cross-cultural research, the method problem that is ruled out is ethnocentric bias, namely understanding the discourse practices of other cultures through the prism of one's own culture. There is a need to find a universal perspective of language that is independent of its discourse structure and cultural values. In this section, we will examine two discourse phenomena that exist in different societies, cultures, and geographies. Among these discourse phenomena will be shown the

different choice of words in relation to desires, opinions, and feelings, different conventions when participating in conversation, special speech styles, culture-specific habits and genres (Li & Gleitman, 2002). Based on language texture, the ever-present differences include the frequency of imperatives and questions, the forms of calls and vocatives, specific forms of self-referral, the acceptance of clear negations, exclamations and particles of discourse, and the use of marked vocabulary in various ways.

Cultural studies

At some level it is possible to talk about the preferred discourse style of a culture, at least if it is limited to a general area, namely situations where participants do not know each other well and are then observed by other participants while they are speaking. . It is common in the literature to find terms, such as indirectness and restraint, which apply to all cultures. In this section we will compare two unrelated cultures (Japanese and Malay). Japanese culture is often characterized by suppression or distrust of words. The Western tradition emphasizes the importance of words. In Japan this tradition does not exist. I don't mean to give the impression that Japanese culture disparages words, but there is an awareness of the unspoken word. Other authors point out that Buddhists emphasize the utility of language communication and the choice of Japanese culture for nonverbal communication in traditional education and in interactions between mothers and children (Clark, 2006; Slezak, 2002).

One important cultural source of verbal control is the *enryo* culture, which is usually translated as restraint 'control' or reserve 'caution'. *Enryo* prevented the Japanese speaker from conveying his wishes directly. Also, it is considered culturally impolite to ask others directly for what they want. Mitzutani and Mitzutani (1987:49) explain that "except with family and close friends, it would be rude to other people to say *Nani-otabetai-desu-ka 'Would you like to eat?' and *Nani-ga-hosii-desu-ka 'What would you like to have?' A guest in Japan is not constantly offered choices by an attentive host, as in the United States. Hosts are responsible for anticipating what pleases their guests and simply serving food and drinks, then urging them to eat them; in the standard phrase, 'without *enryo*'. The same cultural barriers prevent people in Japan from clearly stating choices, even in response to direct questions. The Japanese, when asked pleasant things, avoid answering with expressions. A related phenomenon is the deliberate use of inappropriate numerical expressions.

The most striking difference between Japanese and Americans is not only in the realm of topics they are prepared to talk about, but also in the realm of people, i.e. to whom they speak to convey their thoughts and intentions. (1) If someone is speaking, then avoid saying anything that could hurt or insult someone or embarrass the speaker himself. All of these observations hint at Japanese cultural discourse; (2) often not nice to say anything to other people; (3) it is not good to say something like this to other

people, such as "I want this", "I don't want this", "I thought this", "I don't think this is" if I say something like this, someone will feel something the bad one; (4) before I say something to someone it is good to think something like, (I can't say everything I think if I do, someone will feel something bad). Another Japanese culture that is relevant to his choice of discourse is Omoiyari, which was introduced by some cultural commentators as one of the key traits of Japanese people.

Of course, it is not difficult to find evidence to support Lebra's description of Japanese culture, such as omoiyari culture. For example, in the readers column of the Shikoku Shimbun newspaper, where readers place photos of their children and state their hopes and desires, one of the most common is Omoiyari no aru hitoni nattene 'Please be people with omoiyari'. In the educational manual for teachers, the first is Omoiyari no kokoro o taisetsuni shimashoo 'Let's enrich the mind/heart with omoiyari'. In the 'senior/junior' sempai/koohai relationship in Japanese companies, omoiyari plays an important role: the sempai is expected to anticipate the koohai's needs and satisfy them, to which they will be given absolute loyalty. The Japanese are strict in expressing their feelings. Japanese people who can't control their emotions are considered immature. This applies not only to negative emotions, such as anger, fear, disgust, and sadness, but also to expressions of joy. This balancing act is shown in the discourse below. In (5a) and (5b), Japanese cultural attitudes avoid people from expressing their feelings, but at the same time encourage emotional sensitivity through other people. The final discourse forbids Japanese speakers from avoiding open disputes and expressing positive agreement.

Another aspect of Japanese discourse style can also be understood from discourse this culture. For example, turn-taking follows a different pattern from AngloAmerican society. Japanese conversation is expected to be a collective work of the interlocutor and the dependence on counter words which in Japanese are called aizuchi. This term can be explained as follows: ai means 'to do something together and tsuchi means 'a hammer'. So, two people who are talking and exchanging words are like two hammers on the blade. Japanese speakers always leave the sentence incomplete so that the listener can complete it: 'Completing someone's sentence seems like someone who refuses the participation of others (Erickson, 1995; Fodor & Pylyshyn, 1988).

Traditional Malay culture pays attention to behavior that is polite, and an integral part of speaking in a polite manner. The subtle norms of speech in Malay are somewhat similar to Japanese, but upon closer inspection the similarities become shallow. Researchers generally describe Malay culture with the values of gentle control and hospitality. Malay people are described as polite, gentle, and flexible. Traditionally they are rural people, their livelihoods depend on fishing, plantations, and agriculture. The Malays have long been Muslim even though their traditions (adat) greatly affect their Islamic activities. Its culture is rich in words, proverbs, rhymes, and poetry. The

importance of language in Malay culture is evidenced by the fact that language has a second meaning, namely 'respect' and 'manners'.

One basic concept in Malay association is shame. Although this type of feeling is always translated as ashamed, shy, or embarrassed, the translation does not convey the fact that Malays consider the ability to feel ashamed as a social good, the same as being polite. The desire to avoid shame is a major force in Malay social relations. Two related social concepts are anger and self-esteem, both of which are threatened by the possibility of disapproval of another concept, namely shame.

“The social value system is predicated on the dignity of the individual and ideally all social behavior is regulated in such a way as to preserve one’s own amour propre and to avoid disturbing the same feelings of dignity and self-esteem in others”, ‘the social value system is based on personal dignity and ideally all social behavior is regulated in this way as long as their self-respect is maintained and are avoided offending one another’s prestige and self-respect’. Like in Japan, people think Malays think before they speak. There is a saying that says "If you speak think a little first" ('If you are going to speak think first'). However, the underlying cultural attitude is slightly different from that in Japan. Like the desire to avoid the interlocutor feeling something bad (by saying "take care of the other person's heart" ('take care of the feelings of others')), in Malay this warning is motivated by the desire to avoid the interlocutor from thinking something bad about someone, as before I say something to someone someone, it feels good to think: I don't want this person to feel anything bad, I don't want this person to think anything bad about me.

Another difference is that the value of Malay culture is determined by the ability to speak. His refined manner of speech was greatly admired which brought pride to him and his education. This way of speaking is a skill learned at home and has absolutely nothing to do with wealth, ancestry, or formal education. A farmer with only a basic education may speak more politely than an employee in a government or private office. Gentle speech will be valuable in formal situations or when talking to other people who are outside the family environment. Malays always feel that other people are guarding and expressing their opinions, ready to insult them without speaking skills, such as being rude, not knowing the rules. Polite manner will earn pride. This cultural attitude is described as like if people hear someone say something they sometimes think something like this: 'this person knows how to say things well to others, this is good'; sometimes they think something like, 'this person doesn't know how to say things well to other people 'this is bad'.

Features of refined speech include use of high-value phrases in lieu of usual vocabulary, great attention to forming personal references (eg, avoiding interlocutors and referring to oneself); and for a large inventory of proverbs to allude to the most sensitive matters. A soft (soft) tone is also important. This behavior is not only applied

in speaking, but also in the realm of nonverbal behavior; for example, taking off shoes before entering the house, eating a small amount of food offered, being special when passing people who are sitting, using the right hand when eating or giving something, avoiding physical touch with members of the opposite sex, pointing and gesturing in certain ways.

Malay culture avoids people expressing their feelings. In contrast to the situation in Japan where feelings are expressed with expressions related to the faces and actions of others, there is a fundamental assumption that people are believed to be sensitive to nonverbal manifestations. The discourse is as below. (if I feel something is not good say something like this to other people: 'I feel this way' if other people can see me, they will know how I feel) Meaningful viewing is an appropriate nonverbal strategy. For example, the verb *divination* describes a look used to convey annoyance at the behavior of others, for example, a child misbehaving or someone in a room ringing a ballpoint pen in an obnoxious manner. Wide-eyed convey reproach; lowering the eyes and deliberately looking away without speaking indicates that the person is disgusted with someone; pursed lips and puffed out a sign of annoyance. Nonverbal expressions are criticisms of close friends; in English it is called angry, which is not associated with the atmosphere of 'words of anger' (supported by Anglo cultural discourse on freedom of expression), but with a sad and sullen face which in Malay is called sulking. It is evident from the comparison between Japanese and Malay that there is a choice of discourse that varies from one culture to another. A style that is commonplace in one culture may seem a little shocking and insulting, or boring and annoying from another culture's point of view. To understand cultural variation, it is important to observe speech patterns without regard to the values and norms that explain them. It should also be borne in mind that apparently similar speech patterns (eg, preferences for verbal control) may derive from different cultural values and are associated with different social meanings in different cultural settings (Varley & Siegal, 2000). To clarify this point and even to describe the speech pattern without ethnocentric distortion, special attention is required to the metalanguage of description and analysis.

Language development in children depends on brain maturation, environment, motor and cognitive development, structural and functional integrity of the organism (Jackendoff & Pinker, 2005). If there is a disturbance in the child's development process, it will also have implications for language learning in children. This study deals with what happens in the brain, the other with what is expressed in speech and writing. This study emphasizes the expression of understanding of autistic children by a single subject who has a neurological basis. The object of study theoretically uses psycho-neurolinguistics by Willems & Hagoort (2007) namely by recording, feeling, and understanding phenomena that actually occur, both from the subject's self and the development of the subject and his environment. The study of neurolinguistics is a study that seeks to understand the workings of the brain to process language activities as psycholinguistics, only the focus is different. Neurolinguistics is more concerned

with understanding language difficulties or language disorders, which include speaking, listening, reading, writing, and sign language activities that interfere with communication skills (Papafragou et al., 2002).

Language skills are in line with human development, all of which are found in normal articulation and auditory tools. However, the process of producing words actually continues, as in the process of developing recognition. This is an abstraction or words contained in the meaning. The process of speaking and writing is a cerebral process which means the process of verbal expression, comprehension, and competence formed by the brain's nerve cells in neurons (Kay & Regier, 2006; Regier & Kay, 2009).

The development of affective behavior that is owned by the subject based on the impulses and emotions related to the behavior is shown at the time of adjustment to social interaction. This is a process of social personality. This is evident when the emotional character of the subject. The subject is a woman who is easily influenced, less steadfast, careless, less able to restrain herself, tends to violate the rules, high sensitivity. This happens because there is no adjustment and awkwardness. The tendency of negative things done by the subject is always wanting to play cellphones.

Understanding in describing the subject is a writing. The subject's motor results, including; (1) disturbances in verbal and nonverbal communication such as speech delays, uttering words in one's own language that cannot be understood, echolalia, often imitating and repeating words without understanding the meaning; (2) disturbances in social interactions, such as avoiding eye contact, not seeing when called, refusing to be hugged, preferring to play alone; (3) disturbances in the field of visible behavior and the presence of excessive and deficient behavior, such as impulsive, hyperactive, repetitive.

Typically, disorders that fall into this category are characterized by distortions in the development of multiple basic psychological functions which include the development of social and language skills, such as attention, perception, value of reality, and motor movements. Language development related to language skills is called semantics. Subjects showed slower semantic development than normal children. The results of the autistic children's vocabulary development showed that the subject was slower than normal children (words per minute). Subjects used more positive words, more often used more general words, almost never used specific words, never used pronouns, used single words more often, and subjects could use a variety of words (Majid et al., 2004; Gibbs Jr, 2003).

Based on the description of the data, respondents have the following characteristics. 1) Subjects experience in the field of communication: language development of children with autism is slow or completely absent. Loves to parrot (echolalia) and likes to grab

the hand of others to express his wishes. 2) The type of sound change comes from the sound quality, so that there are several types of sound changes produced by a single subject, namely prosthesis and syncope. 3) The level of cognitive, language, and writing abilities on a single subject, in this case is very minimal or limited. 4) Subjects have specificity in understanding words, phrases, clauses, and sentences and the expressions obtained are varied.

Pragmatic analysis can overcome the weaknesses of syntactic and semantic analysis. The use of context in pragmatic analysis has been able to explain non-syntactic and non-semantic aspects so that the speaker's understanding of an utterance becomes more profound and complete. This is necessary to build effective communication between speakers and speakers in a particular speech event. Furthermore, in relation to research, pragmatic analysis can be used to understand and explore more thoroughly the speech text that is the object of research. Speech texts can be dissected and analyzed not only from their syntactic and semantic aspects but also from their pragmatic aspects. In this way, the analysis of the speech text becomes more complete and complete so that it fulfills the principle of exhaustive explanation.

It is evident from the comparison between Japanese and Malay that there is a choice of discourse that varies from one culture to another. A style that is commonplace in one culture may seem a little shocking and insulting, or boring and annoying from another culture's point of view ([Barner et al., 2009](#); [Boroditsky et al., 2011](#)). To understand cultural variation, it is important to observe speech patterns without regard to the values and norms that explain them. It should also be borne in mind that apparently similar speech patterns (eg, preferences for verbal control) may derive from different cultural values and are associated with different social meanings in different cultural settings. To clarify this point and even to describe the speech pattern without ethnocentric distortion, special attention is required to the metalanguage of description and analysis.

Based on the illustration, it has the following characteristics. 1) Subjects experience in the field of communication: language development of children with autism is slow or completely absent. Loves to parrot (echolalia) and likes to grab the hand of others to express his wishes. 2) The type of sound change comes from the sound quality, so that there are several types of sound changes produced by a single subject, namely prosthesis and syncope. 3) The level of cognitive, language, and writing abilities on a single subject, in this case is very minimal or limited. 4) Subjects have specificity in understanding words, phrases, clauses, and sentences and the expressions obtained are varied.

Conclusion

Phonetics is the study of the sounds of language. Based on the process of occurrence, phonetics can be divided into three types, namely; (1) Acoustic phonetics, namely studying the sound of language in the form of air vibrations and studying the frequency of sound vibrations, amplitude, intensity and timbre; (2) auditory phonetics, namely studying how the mechanism of the ear receives sound as a result of vibrating air; (3) Articulatory phonetics is phonetics that studies how the mechanisms of human speech tools produce language sounds and classify language based on their articulation. Phoneme is the smallest unit of language sound that is functional, meaning that the unit has a function to distinguish meaning. Meanwhile, phonemization is an attempt to find sounds that function in order to differentiate the meaning.

The morphological processes include (1) affixation, (2) reduplication, (3) internal change, (4) addition, and (3) empty modification (Samsuri, 190-193). However, in Indonesian which is agglutinated, there is no data on morphological processes in the form of internal changes, additions, and blank modifications. So, the morphological process in Indonesian is only through affixation and reduplication. Morphology is a part of linguistics that discusses or studies the intricacies of word form and the effect of changes in word form on word groups and meanings, or in other words it can be said that morphology studies the intricacies of word forms and the function of changes in word form. It, both grammatical and semantic functions. Semantics is one component of grammar (the other two components are syntax and phonology) and the meaning of sentences is largely determined by the semantic component. Discourse is a language unit above the sentence level that is used to communicate in a social context. The language unit can be a series of sentences or utterances. Discourse can be oral or written and can be transactional or interactional. In the event of verbal communication, it can be seen that discourse is a communication process between the greeter and the addressee, while in written communication, discourse is seen as the result of the expression of the greeter's ideas. The discipline that studies discourse is called discourse analysis. Discourse analysis is a study that examines or analyzes language used naturally, both in written and oral form. Therefore, the benefits of conducting discourse analysis activities are understanding the nature of language, understanding the process of language learning and language behavior.

References

- Barner, D., Inagaki, S., & Li, P. (2009). Language, thought, and real nouns. *Cognition*, 111(3), 329-344. <https://doi.org/10.1016/j.cognition.2009.02.008>
- Barsalou, L. W., Simmons, W. K., Barbey, A. K., & Wilson, C. D. (2003). Grounding conceptual knowledge in modality-specific systems. *Trends in cognitive sciences*, 7(2), 84-91. [https://doi.org/10.1016/S1364-6613\(02\)00029-3](https://doi.org/10.1016/S1364-6613(02)00029-3)

- Bloom, P. (2000). Language and thought: Does grammar makes us smart?. *Current Biology*, 10(14), R516R517. [https://doi.org/10.1016/S0960-9822\(00\)00582-0](https://doi.org/10.1016/S0960-9822(00)00582-0)
- Boroditsky, L. (2001). Does language shape thought?: Mandarin and English speakers' conceptions of time. *Cognitive psychology*, 43(1), 1-22. <https://doi.org/10.1006/cogp.2001.0748>
- Boroditsky, L., Fuhrman, O., & McCormick, K. (2011). Do English and Mandarin speakers think about time differently?. *Cognition*, 118(1), 123-129. <https://doi.org/10.1016/j.cognition.2010.09.010>
- Brown, R., & Fish, D. (1983). The psychological causality implicit in language. *Cognition*, 14(3), 237-273. [https://doi.org/10.1016/0010-0277\(83\)90006-9](https://doi.org/10.1016/0010-0277(83)90006-9)
- Clark, A. (2006). Language, embodiment, and the cognitive niche. *Trends in cognitive sciences*, 10(8), 370374. <https://doi.org/10.1016/j.tics.2006.06.012>
- Erickson, T. D. (1995). Working with interface metaphors. In *Readings in Human-Computer Interaction* (pp. 147-151). Morgan Kaufmann. <https://doi.org/10.1016/B978-0-08-051574-8.50018-2>
- Fodor, J. A., & Pylyshyn, Z. W. (1988). Connectionism and cognitive architecture: A critical analysis. *Cognition*, 28(1-2), 3-71. [https://doi.org/10.1016/0010-0277\(88\)90031-5](https://doi.org/10.1016/0010-0277(88)90031-5)
- Gerrig, R. J., & Banaji, M. R. (1994). Language and thought. In *Thinking and problem solving* (pp. 233-261). Academic Press. <https://doi.org/10.1016/B978-0-08-057299-4.50014-1>
- Gibbs Jr, R. W. (2003). Embodied experience and linguistic meaning. *Brain and language*, 84(1), 1-15. [https://doi.org/10.1016/S0093-934X\(02\)00517-5](https://doi.org/10.1016/S0093-934X(02)00517-5)
- Imai, M., Kanero, J., & Masuda, T. (2016). The relation between language, culture, and thought. *Current Opinion in Psychology*, 8, 70-77. <https://doi.org/10.1016/j.copsyc.2015.10.011>
- Jackendoff, R., & Pinker, S. (2005). The nature of the language faculty and its implications for evolution of language (Reply to Fitch, Hauser, and Chomsky). *Cognition*, 97(2), 211-225. <https://doi.org/10.1016/j.cognition.2005.04.006>
- Kay, P., & Regier, T. (2006). Language, thought and color: recent developments. *Trends in cognitive sciences*, 10(2), 51-54. <https://doi.org/10.1016/j.tics.2005.12.007>
- Li, P., & Abarbanell, L. (2018). Competing perspectives on frames of reference in language and thought. *Cognition*, 170, 9-24. <https://doi.org/10.1016/j.cognition.2017.09.005>
- Li, P., & Gleitman, L. (2002). Turning the tables: Language and spatial reasoning. *Cognition*, 83(3), 265294. [https://doi.org/10.1016/S0010-0277\(02\)00009-4](https://doi.org/10.1016/S0010-0277(02)00009-4)
- Lupyan, G. (2012). What do words do? Toward a theory of language-augmented thought. In *Psychology of learning and motivation* (Vol. 57, pp. 255-297). Academic Press. <https://doi.org/10.1016/B978-0-12394293-7.00007-8>
- Majid, A., Bowerman, M., Kita, S., Haun, D. B., & Levinson, S. C. (2004). Can language restructure cognition? The case for space. *Trends in cognitive sciences*, 8(3), 108-114. <https://doi.org/10.1016/j.tics.2004.01.003>

- Ning, S., Hayakawa, S., Bartolotti, J., & Marian, V. (2020). On language and thought: Bilingual experience influences semantic associations. *Journal of Neurolinguistics*, 56, 100932. <https://doi.org/10.1016/j.jneuroling.2020.100932>
- Papafragou, A. (2005). Relations between language and thought: Individuation and the count/mass distinction. In *Handbook of categorization in cognitive science* (pp. 255-275). Elsevier Science Ltd. <https://doi.org/10.1016/B978-008044612-7/50066-4>
- Papafragou, A., Massey, C., & Gleitman, L. (2002). Shake, rattle, 'n' roll: The representation of motion in language and cognition. *Cognition*, 84(2), 189-219. [https://doi.org/10.1016/S0010-0277\(02\)00046-X](https://doi.org/10.1016/S0010-0277(02)00046-X)
- Piaget, J. (2000). Commentary on Vygotsky's criticisms of language and thought of the child and judgement and reasoning in the child. *New ideas in psychology*, 18(2-3), 241-259.
- Piantadosi, S. T., Tenenbaum, J. B., & Goodman, N. D. (2012). Bootstrapping in a language of thought:
A formal model of numerical concept learning. *Cognition*, 123(2), 199-217. <https://doi.org/10.1016/j.cognition.2011.11.005>
- Proudfoot, D. (2009). Meaning and mind: Wittgenstein's relevance for the 'Does Language Shape Thought?' debate. *New ideas in psychology*, 27(2), 163-183. <https://doi.org/10.1016/j.newideapsych.2008.04.012>
- Regier, T., & Kay, P. (2009). Language, thought, and color: Whorf was half right. *Trends in cognitive sciences*, 13(10), 439-446. <https://doi.org/10.1016/j.tics.2009.07.001>
- Slezak, P. (2002). Thinking about thinking: Language, thought and introspection. *Language & Communication*, 22(3), 353-373. [https://doi.org/10.1016/S0271-5309\(02\)00012-5](https://doi.org/10.1016/S0271-5309(02)00012-5)
- Ullman, T. D., Goodman, N. D., & Tenenbaum, J. B. (2012). Theory learning as stochastic search in the language of thought. *Cognitive Development*, 27(4), 455-480. <https://doi.org/10.1016/j.cogdev.2012.07.005>
- Varley, R., & Siegal, M. (2000). Evidence for cognition without grammar from causal reasoning and 'theory of mind' in an agrammatic aphasic patient. *Current Biology*, 10(12), 723-726. [https://doi.org/10.1016/S0960-9822\(00\)00538-8](https://doi.org/10.1016/S0960-9822(00)00538-8)
- Vita, A., Dieci, M., Giobbio, G. M., Caputo, A., Ghiringhelli, L., Comazzi, M., ... & Invernizzi, G. (1995). Language and thought disorder in schizophrenia: brain morphological correlates. *Schizophrenia Research*, 15(3), 243-251. [https://doi.org/10.1016/0920-9964\(94\)00050-I](https://doi.org/10.1016/0920-9964(94)00050-I)
- Weist, R. M. (1989). Time concepts in language and thought: Filling the Piagetian void from two to five years. In *Advances in psychology* (Vol. 59, pp. 63-118). North-Holland. [https://doi.org/10.1016/S0166-4115\(08\)61039-0](https://doi.org/10.1016/S0166-4115(08)61039-0)
- Willems, R. M., & Hagoort, P. (2007). Neural evidence for the interplay between language, gesture, and action: A review. *Brain and language*, 101(3), 278-289. <https://doi.org/10.1016/j.bandl.2007.03.004>