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Vygotsky's inner speech in second language learning

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Abstract

This thesis focuses on Vygotsky's theory on inner speech and inner speech in second language learning. To deepen the understanding of inner speech some supporting theories such as sociocultural theory, mediation, Zone of proximal development and scaffolding are mentioned. The supporting theories are mentioned because understanding inner speech would be difficult if not understanding the theories connected to it. Vygotsky's sociocultural theory in which the theory of language appears is divided into sections of the theory to create a consistent body of information which is used to explain inner speech and inner speech in second language learning. There is a need in education for more diverse teaching methods and yet inner speech is not much used in education due to it being an internalized function and therefore more demanding to detect and understand.

Abstrakti

Tämä opinnäytetyö keskittyy Vygotskyn teoriaan sisäisestä puheesta ja sisäiseen puheeseen vieraan kielen opiskelussa. Teorian ymmärtämisen syventämisen vuoksi, joitain sisäistä puhetta tukevia teorioita, kuten sosiokulttuurinen teoria, mediaatio, lähikehityksen vyöhyke ja oppimisen ohjattu tuki mainitaan opinnäytetyössä. Tukevat teoriat mainitaan opinnäytetyössä, koska sisäisen puheen ymmärtäminen olisi hankalaa ilman ymmärrystä teorioista, jotka ovat siihen yhteydessä. Vygotskyn sosiokulttuurinen teoria, jossa kielen teoria esiintyy, on jaettu teorian erillisiin osioihin tavoitteena luoda yksi yhtenäinen kokonaisuus, jota käytetään sisäisen puheen ja sisäinen puhe vieraan kielen opiskelussa ymmärtämiseen. Koulutusjärjestelmässä on tarve uusille opetusmenetelmille ja silti sisäistä puhetta ei käytetä opetuksessa, koska se on sisäinen toiminto ja sen vuoksi vaativampi tutkia ja ymmärtää.

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1. Introduction

This thesis aims to study the psychological phenomenon of inner speech and its correlation to second language learning. Therefore, the two main phenomena of this thesis are Vygotsky's inner speech and second language learning. Throughout this thesis I will be using SLL when discussing second language learning. This study will be a literature review and the sources will be both academic articles and academic books. As one of my main sources I will be using a book *Thought and language* by Alex Kozulin. *Thought and language* is a rendition of Vygotsky's own book *Thought and language* 1934 and there are multiple editions of it by Alex Kozulin. I will be using few different editions of *Thought and language*. Due to the extensive information of inner speech and other supporting psychological theories, Vygotsky's theories and his perspective on psychological concepts will be used as a base for this thesis to create one consistent body of information. The supporting psychological theories used in this thesis are sociocultural theory, mediation, zone of proximal development and scaffolding. Throughout the thesis I will be using ZPD to describe Zone of proximal development. Since Vygotsky can be considered the creator of the sociocultural theory and inner speech is part of his theories regarding sociocultural theory, discussing inner speech without any understanding of Vygotsky's other theories would be challenging (Masuda, Arnett & Labarca, 2015; Murphy, 1989; Mocombe, 2018). Internalization has a key role in Vygotsky's sociocultural theory which becomes clear due to inner speech being internalized social speech (Masuda, Arnett & Labarca, 2015). Other psychologist's theories and perspective on the functions of child's thought will be presented to create an understanding of why the theory of language in which language is divided into three forms external, egocentric, and inner speech was developed. Therefore, the supporting concepts and the history of the functions of child's thought is presented in an aim to create a wider understanding of inner speech as a psychological concept.

The role of studying SLL in education is only increasing and will continue to increase in the future (Scarino, 2022). As a result of globalisation, the population is getting more diverse and with that increases the need to find more diverse learning methods so that successful SLL can reach all children (Pérez & McCarty, 2004). It was pointed out as early as 1998 by Cook that SLL requires an overall wider linguistic perspective in ways to research and teach it other than external and social (De Guerrero, 2018). Inner speech has shown to have an important role in SLL and yet there is not much research done about the concept and it is not much used in education (Ehrich, 2006). Most research regarding inner speech and language learning has been done from the perspective of first language or monolinguals (De Guerrero, 2018). According to Vygotsky, the area of inner speech is one of the most demanding areas to study and this could explain why to this day much research is not done about the phenomenon (Ehrich, 2006). Because inner speech concerns internal functions, it is more difficult

to study and could be a reason why it has not been researched much yet in the educational context (Resnik, 2018). Since inner speech is internal and therefore harder to study and inspect it often get unnoticed by educators hence it is not very widely included in education (De Guerrero, 2018). Inner speech increases the learner's self-regulation, self-rehearsal, self-confidence, and control over their language use (De Guerrero, 2018; Murphy, 1989; Block, 2003). Inner speech is often used as a tool of self-regulation and memorizing learned information, which is very useful in SLL (Morin, Uttl & Hamper, 2011). Vygotsky's sociocultural theory which inner speech is a part of has become a big part of SLL since the 1970s when Vygotsky's book *Thought, and language* was translated from Russian (Yoon & Kim, 2012). Vygotsky's theories have been used in many aspects of education, such as ZPD, scaffolding and language learning (Yoon & Kim, 2012). Often sociocultural theory is used as a lens from behind to look and understand the phenomenon of SLL, but previously it was not applied to education much as its own theory (Van Compernelle & Williams, 2013). After "Negueruela's (2003) doctoral research" which focused on the concepts of sociocultural theory such as language as mediational tool in educational settings and SLL, the implementation of sociocultural theory in education has much increased (Van Compernelle & Williams, 2013, p. 1).

My thesis research questions will be as follows: *How has the concept of inner speech developed? What are the supporting concepts of inner speech? What is inner speech and how does inner speech connect to second language learning?* I will answer these research questions by studying Piaget's theories and perspective on child's thought and some other psychologists will be mentioned as well such as Bleuler and Bruner to deepen the understanding of how the functions of child's thought has been presented throughout the years. I will present the supporting concepts and justify why I have chosen them as the supporting concepts of inner speech. I will determine and describe what inner speech is, by focusing on Vygotsky's inner speech and theory of language. In my focus on inner speech, I will study its development throughout the years and what are the developmental steps of inner speech. With the help of the supporting concepts and the theory of language I will aim to connect inner speech into SLL and determine how do these two phenomena connect to each other. I will be answering this question by studying inner speech in SLL and by studying SLL in the supporting concepts of inner speech.

2. Inner speech

2.1 History of child's thought

Since Vygotsky could be considered as the creator of the theory of inner speech, summarising the theories of the phenomenon prior to his theories can be complicated (Murphy, 1989). One psychologist that should be mentioned to have influenced the understanding of inner speech, thought and child's thinking is Jean Piaget. Piaget's influence on the development of child's thought is

important to mention when discussing Vygotsky's theories because Vygotsky was influenced by other psychologists work and Piaget were one of them (Yoon & Kim, 2012). Both Piaget and Vygotsky had a relational perspective in their theories on human development and they place the learner as an active member, but Vygotsky had more focus on the interaction of the participants (Yoon & Kim, 2012; Pound, 2013). Since Piaget and Vygotsky both were constructivists, they both had emphasis on the importance of experience in the development of cognition (Pound, 2013). One major difference between Piaget and Vygotsky was their approach towards egocentric thinking (Murphy, 1989; Pass, 2004). Piaget explained that egocentric speech disappeared at some point due to cognitive development, when according to Vygotsky egocentric speech becomes part of inner speech and serves as part of cognition (Murphy, 1989).

2.1.1 Piaget's theories on the functions of child's thought

Before Piaget's theories on child development, children were considered to be small adults and should be treated as such (Pound, 2013). Therefore Piaget's theories on child development has revolutionized the understanding of the development of children (Vygotsky & Kozulin, 1986). According to his theories he explains that social thinking is conscious and is highly connected to reality and aims to be factual (Vygotsky & Kozulin, 1986). Social thinking follows some consistent rules, but it is based on experiences and therefore it is individual (Vygotsky & Kozulin, 1986). Only adults can have social thinking and Piaget explains that the first form of social thinking in children can be seen around the age of seven and this is only due to long and extensive social pressure that the child has experienced (Vygotsky & Kozulin, 1986). Piaget (1999) explains that the prime time in children for egocentric thinking was at the age of seven to eight. Piaget had strong emphasis on the range of experiences between children and adults as a developer of cognition (Pound, 2013). Prior to the development of social thinking the child proceeds to place itself into reality but fails to do so for not being able to communicate with the world in a form of what Piaget describes as logic (Vygotsky & Kozulin, 1986; Piaget, 1999).

Piaget discusses the theory by Bleuler who claimed child's thought to be naturally autistic and finds Bleuler's theory to not be accurate since it is too simplified (Vygotsky & Kozulin, 1986). Piaget explains that Bleuler's simplistic description of child's thinking cannot be found as it is in humans nor in other less developed species (Vygotsky & Kozulin, 1986). Autism is seen as the first form of thinking, and it solely aims to satisfy the child's needs such as hunger (Vygotsky & Kozulin, 1986). Therefore, instead of autistic thinking Piaget uses the term egocentric thinking to describe child's thought (Pound, 2013). In Piaget's description of egocentric thinking, egocentric thinking is a form of thinking in which the child lacks to understand the distinction of their own thought from other

individuals' thoughts (Piaget, 1999; Babakr, Mohamedamin & Kakamad, 2019; Pound, 2013). Egocentric thinking is a more developed stage of thinking that is located between individual natural production of speech and adult social speech (Pass, 2004). Child's thinking is originally egocentric and only becomes realistic after long time of social pressure (Vygotsky & Kozulin, 1986). It should also be mentioned that egocentric thinking is not fully conscious thinking, it is located between realistic mature thinking and dream like unconscious thinking of a child (Vygotsky & Kozulin, 1986). Piaget (1999) himself explains this as child's thinking being egocentric due to existing between Bleuler's autistic thinking and adults' social thinking. This does not belittle the intelligence of children for logic is not all there is to intelligence as imagination plays an important role in problem solving but it does not verify factually and because the action of verifying is needed for logical thinking the child's thinking remains egocentric (Vygotsky & Kozulin, 1986). Piaget (1999) ponders that the need to verify factually would not exist if there were no other people. It is a social need of humans to communicate, prove and argue our thoughts with other individuals (Piaget, 1999). Piaget theorized that once the child's development transfers from one level to the next there was no return between the different levels or stages of development (Pound, 2013).

Piaget's theories on children's thought has been criticised as it can be seen as too simplistic when compared to the knowledge and understanding that psychologist currently have of the development of child's thought (FERNYHOUGH, 2008). Piaget did not address internalization and he denied Vygotsky's theories on inner speech and higher mental functions (Pass, 2004; FERNYHOUGH, 2008). Piaget's theories were also criticised for it had strong overestimation of the abilities of the youth meanwhile underestimating the abilities of infants (Babakr, Mohamedamin & Kakamad, 2019; Piaget, Camaioni & de Lemos, 1985). Piaget also lacks to mention the interactions provided by culture and society to have any effect on the development of a child specifically their cognition and development of thought (Babakr, Mohamedamin & Kakamad, 2019; Pound, 2013). Other psychologist also argued against Piaget's perspective that once the thinking develops to the next stage, the previous stages can no longer be accessed (Pound, 2013). Vygotsky explained that the egocentric level does not disappear but rather serves as part of cognition and Bruner argued that the previous stages could be accessed once met with an unfamiliar experience (Pound, 2013). Jerome Bruner was a psychologist in the 20th century and his theories have had a great influence on the cognitive psychology and the inner life of human mind (Bakhurst & Shanker, 2001). Bruner and his theory on scaffolding will be mentioned later in this thesis.

2.2 Sociocultural theory at the base of inner speech

When researching inner speech, one supporting concept that should be mentioned is sociocultural theory, because it explains the social origin of thought and language (Guerrero, 2018). Sociocultural

theory is a theory used by many psychologists, but this thesis will focus on Vygotsky's perspective on sociocultural theory. The name sociocultural theory can be misleading (Lantolf & Thorne, 2006). Despite its name sociocultural theory is not a theory of society nor of culture but in fact it is a theory of the connection of the human mind and society (Lantolf & Thorne, 2006). Culture is an objective force that generates human activity and interactions (Yoon & Kim, 2012). Society is a crucial factor in all high human functions and therefore learning should happen in collaboration and not in isolation (Abune, 2019). Vygotsky suggested that at the centre of all human behaviour and learning was culture and society and most importantly Vygotsky believed that learning happens through language and language is the tool for learning (Vygotsky & Kozuli, 2012; Babakr, Mohamedamin & Kakamad, 2019). Vygotsky's idea of language being at the centre of learning was not language in the sense of its words and grammar but rather from the perspective of what does the language and words mean to an individual and what does the individual make of it (Vygotsky & Kozuli, 2012).

According to Vygotsky, at the early stages of life a child is completely reliant on their parents (Turuk, 2008). The parent instructs the child on how to problem solve, behave, and survive in the diverse circumstances of life (Turuk, 2008). In this stage the parents are the representation of culture and in this action the culture and society are passed on to the child through the parents (Turuk, 2008). The child receives information of its surroundings in interaction with other people and this collection of knowledge can be divided into two sections; the interpsychological plane, and intrapsychological plane (Finn, 2003; Lantolf & Thorne, 2006; Cole, 1986). In the interpsychological plane the child gains knowledge and understanding in interaction with other people whereas in the intrapsychological plane the child processes the learned knowledge and adds their own values to it (Ferryhough, 2008). Vygotsky claims that this is not a continuum of repeating the same learned knowledge through generations, but the knowledge developed through every generation due to this behaviour of adding one's own values (Turuk, 2008). The learned knowledge and the tools provided by society are affected by social forces and therefore are not stable but forever changing with the time (Masuda, Arnett & Labarca, 2015). Therefore, it is not just a copy of what is learned from others, and this can be seen in educational settings as well (Turuk, 2008). The children do not blindly believe the teacher, but instead they process the information through their own values (Turuk, 2008). Therefore, teaching nor learning can never be fully neutral since our behaviour always represents the culture and society we are a part of (Pérez & McCarty, 2004).

A human does not solely act upon the physical needs, but it uses the intermediary of tools (Turuk, 2008). Yoon and Kim (2012) explain that Vygotsky's had a focus on the human mind being a tool for the development and process of thought. Vygotsky had high beliefs in man's potential, and the use of individuals own tools in learning such as symbols or interaction with other individuals (Rieber & Robinson, 2013; Davis et al, 2015). At some point of the development of a culture it, creates symbols

in aim to help members of that culture to problem solve which would be challenging in their absence (Turuk, 2008). Vygotsky explains that this is because unlike other animals, humans are able to access their psychological tools and use them in the functions of cognition such as learning (Yoon & Kim, 2012).

According to Yoon and Kim (2012) in Vygotsky's theories language is one of the main mediational tools in all human development. Vygotsky discusses this use of psychological tools especially in the concept of language learning and in SLL this use of tools such as symbols, language and objects lead to a higher order in functions (Turuk, 2008). Vygotsky explains that high human functions are the result of mediated activity, mediating meaning the use of tools (Vygotsky & Kozulin, 1986; Mocombe, 2018). The concept of using tools appears first in Vygotsky's theories as material tools serving as mediators of human thought (Vygotsky & Kozulin, 1986). Material tools are controlled by the nature and therefore by external forces when psychological tools act as an explanation or indicators of individuals behaviour and cognition (Vygotsky & Kozulin, 1986). Psychological tools are internal oriented and therefore development happens through internalization and in internalization language has a key role (Vygotsky & Kozulin, 1986; Ehrich, 2006). Vygotsky had a distinction between lower and higher human functions (Vygotsky & Kozulin, 1986). Lower functions included functions such as will, attention and memory and higher human function appear gradually in the development of the lower functions (Vygotsky & Kozulin, 1986; Ehrich, 2006). The use of psychological tools allows the individual to transition from lower functions to the higher functions (Vygotsky & Kozulin, 1986). Once the individual develops higher functions the lower functions do not disappear, but they are organized according to the individual's own goals (Vygotsky & Kozulin, 1986). The child learns high functions by observing it's surrounding and internalizes their interpretations of the social occurrences they witness (Abune, 2019). Therefore, internalization of skills, values and language happens in connection to society and therefore community assists the individual to develop the three levels of language; external, egocentric, and inner speech (Abune, 2019; Mocombe, 2018).

2.2.1. Mediation

An individual mediates society and culture by using psychological and physical tools in an aim to create meaning (Swain & Deters, 2007; Pérez & McCarty, 2004). Mediation has an important role in sociocultural theory because of its use of psychological and physical tools (Swain & Deters, 2007). Masuda, Arnett and Labarca (2015) explain that the human mind might not directly be in connection to the surrounding world, but it can mediate society with the use of psychological tools.

Humans live in two different worlds, one is full of symbols and signs that are understood by the means of language and the other world is primarily managed by the use of human's hands and brain

(Lantolf & Thorne, 2006). Therefore, mediation is divided into two categories: symbolic and human (Turuk, 2008). The correlation of these two worlds has been debated in psychology for years and Vygotsky was interested in connecting these worlds of language and labour activity (Lantolf & Thorne, 2006). With the means of internalization humans are able to connect material activity which is heavily involved by external means to mental activity (Masuda, Arnett & Labarca, 2015). With internalization, humans control their mental functions by transferring mediated society and external functions into thinking and therefore into inner speech (Masuda, Arnett & Labarca, 2015). Vygotsky studied the first stages of child's verbal mediation (Fernyhough, 2008). He believed that mediated verbal language in children were the first signs of self-directed language which is now known as private speech or inner speech depending on whether the language is verbal or nonverbal (Fernyhough, 2008). Children use verbal mediation in aim to regulate their own behaviour (Fernyhough, 2008; Masuda, Arnett & Labarca, 2015).

According to Vygotsky all high human functions are mediated by culture and auxiliary means which means that they arise as a result of existing in a culture (Lantolf & Thorne, 2006; Van Compernelle & Williams, 2013). This means that all high forms of thinking rely on symbolic forms that are peripheral (Lantolf & Thorne, 2006). Consciousness is mediated using cultural means (Lantolf & Thorne, 2006). In the Vygotskian sociocultural theory mediation can be seen as using psychological tools as a way to affect the relation of psychological outputs (Fernyhough, 2008). Vygotsky explained mediation as the people in the child's life that have a role in the child's learning and development (Turuk, 2008). Neuropsychology explains mediation as creating connections in the brain from the outside world (Lantolf & Thorne, 2006). The secret of successful learning is in interactions between multiple participants that are at a different level of learning and possess a different level of skills (Turuk, 2008). Hence mediation is strongly related to Vygotsky's theory Zone of proximal development. Learning is not an individual process of the child in which the child explores its environment, but it is the child's use of tools in the culture and society they exist in (Turuk, 2008).

2.2.2. Zone of proximal development

Vygotsky as an educator and a psychologist had two dissatisfactions towards education for during Vygotsky's time the traditional teaching in Soviet Union schools was to memorize facts to pass tests and there was no focus on internalization of the knowledge (Margolis, 2020). Pass (2004) explains that Vygotsky believed that education was failing if it did not consider learning as a social interaction between the teacher and students. Vygotsky did not approve of the focus on assessment of children's intellect and assessment of instructions in Soviet Union schools (Margolis, 2020; Fani & Ghaemi, 2011). Vygotsky believed that the testing did not allow space for potential development, but it solely focused on the current level of development (Fani & Ghaemi, 2011). His theories had a primary focus

on the prediction of child's future capabilities and therefore he created a theory called Zone of proximal development in the aim to change the children's way of thinking instead of simply teaching children how to memorize things (Margolis, 2020).

Vygotsky uses the term ZPD to explain a theory in which a child can learn a skill that is not in their current development level in the guidance or under the control of an adult or a peer that masters a higher capability of skills (Davis et al, 2015; Lantolf & Thorne, 2006; Yoon & Kim, 2012; Masuda, Arnett & Labarca, 2015). The learner can reach their potential development level in problem solving under the guidance of a more capable person (Abune, 2019; Margolis, 2020; Yoon & Kim, 2012; Pass, 2004). ZPD explains the distance of what an individual can learn independently and what they can learn in guidance of an expert (Ferryhough, 2008; Block, 2003).

In a teaching situation ZPD should be flexible and have many possibilities rather than being stable and consistent (Yoon & Kim, 2012). Therefore, so should the potential development of the student in the guidance of the teacher be flexible and not stable but constantly changing (Yoon & Kim, 2012). Vygotsky's ZPD explained his other theories in educational aspects as according to Vygotsky ZPD explains that development requires consistent interaction between a teacher and a student (Yoon & Kim, 2012). The importance of interaction with other individuals resurfaces in all aspects of Vygotsky's sociocultural theory. ZPD allowed showcasing the child's functions that had not yet matured but could be matured in the near future instead of focusing on the already developed functions (Margolis, 2020). The child internalises the skill learned in collaboration with a peer or an adult and once the skill is internalized it becomes part of the child's own development achievement (Margolis, 2020).

ZPD is not simply reliant on the instructions, but biological factors also have a role in successful ZPD (Margolis, 2020). According to Margolis (2020) This is because the child can merely learn the skills that are within certain limits of the child's development even when using ZPD. Therefore, it is the teacher's responsibility to make sure that the teaching instructions line with the capabilities and development limits of the child (Yoon & Kim, 2012). According to Vygotsky the teaching should always focus on the functions to be developed and never on the developed functions (Margolis, 2020; Hammond & Gibbons, 2005).

ZPD lacks in the practical aspects and Vygotsky himself gave little to no instructions on the practical aspects of ZPD and how to use it successfully in a classroom setting (Guk & Kellogg, 2007). Vygotsky created the theory and left the practical implementation to the hands of other scientists (Margolis, 2020). One of the most debated aspects of ZPD is what are the means to get a child from one level to the next and who is the facilitator of those means (Margolis, 2020).

2.2.2.1 Scaffolding

In search for the practical aspects of ZPD Jerome Bruner was the first to do a scientific study of ZPD in educational settings with assembling a toy pyramid and as a result theory called scaffolding was created (Margolis, 2020; Guk & Kellogg, 2007; Abune, 2019; Pass, 2004). Scaffolding is a social collaboration or interactions with a more knowledgeable participant and a less capable participant in which the more capable participant can create a setting with the tools of language or supportive conditions in which the less capable participant can advance in their current skills (Turuk, 2008; Block, 2003; Abune, 2019; Pérez & McCarty, 2004). In school setting this means that the teacher is providing the students with certain kind of support in an aim of achieving a skill that the child could not master independently (Turuk, 2008; Margolis, 2020). There are two components that are important for successful scaffolding in education and those are continuity between tasks and assignments and safe and supportive learning environment both of which are often heavily reliant on the teacher (Saadat & Alavis, 2020). Scaffolding must always have two or more participants (Block, 2003). The child can proceed to the next level in developed skills due to two factors (Margolis, 2020). Firstly, the adult is controlling the situation and this way the adult can control which steps the child takes in the learning process to make sure that the learning is successful (Margolis, 2020). Secondly the child must understand how to solve the problem before solving it or before the conditions for solving the problem are provided (Margolis, 2020). Comparing the possibilities allows the child to learn how to comprehend the correct options and this comprehending is an important step in scaffolding (Margolis, 2020). Often this comprehension requires the guidance of an adult, and it is important for the adult to provide the student with only the amount of help or support that is needed by the student to solve the task (Margolis, 2020). Similarly, to ZPD the level of the task and the support from the teacher must be adjusted according to the individual and their actions and utterance (Saadat & Alavis, 2020). Therefore, teachers support level should be equivalent or somewhat above the student's current skill level (Margolis, 2020). In scaffolding the support in a task is only temporary and the teacher's influence should slowly fade away from the joint task (Margolis, 2020). Once the child takes more responsibility in the task, it is a sign for the teacher that the skill has been internalized and therefore the teacher should provide the child with a task that allows the child to advance to an even higher level of development (Margolis, 2020; Saadat & Alavis, 2020; Abune, 2019). Therefore, inner speech plays an important role in scaffolding (Montazeri, Hamidi & Hamidi, 2015). Inner speech is used as a tool to independently rehears skills that one has not yet mastered (Montazeri, Hamidi & Hamidi, 2015).

Saadat and Alavis (2020) explain that the practical aspect of scaffolding in an educational setting can be divide into four levels. Those levels are 1. being assisted by a more knowledgeable individual, 2. being assisted by a peer or a classmate, 3. assisting someone of a lower level of abilities and 4.

independent learning (Saadat & Alavis, 2020). The first level in educational settings is often provided by the teacher and it could vary from modelling, instructing, guiding or advising (Saadat & Alavis, 2020). For efficient scaffolding it is important that the first level is not simply transition of information from the teacher to the student but rather it is a collaboration between the teacher and the student (Hammond & Gibbons, 2005). Second level is similar to the first but in this level the student is being assisted by a peer who they most likely relate to more than the teacher (Saadat & Alavis, 2020). In assisting someone with lower abilities the learner must think of ways to make the task more understandable and in these processes the student teaching the task often discovers new aspects of the topic themselves as well, gaining a wider understanding of the topic (Yawiloeng, 2021). In the last level the ability or skill is fully learned, and the learner does not need the assistance or support of other individuals to be able to master it (Saadat & Alavis, 2020). These four different levels of scaffolding provide the learner with many possibilities to learn (Saadat & Alavis, 2020). There are also different scaffolding strategies and if those strategies meet the three general conditions which are limitation, progressive reduction and transferring the responsibility, they are considered to be scaffolding (Margolis, 2020). Scaffolding should provide the students with few general functions and some of those are demonstration, showing critical features, maintaining interest, assessment, providing excitement and reducing frustration (Margolis, 2020).

Margolis (2020) provides some critical and important points to scaffolding as a teaching method and explains that scaffolding has been criticised by scientist, educational experts, and psychologist. Scaffolding has become a popular and used concept in education that it sometimes can be seen as a synonym for any kind of support provided by the teacher to the students (Margolis, 2020). Therefore, it has become too broad, and it has essentially formed into an umbrella term for any support, guidance or instruction provided by a more capable individual to a less capable individual (Margolis, 2020). Furthermore Margolis (2020) argued that it has mostly been criticised by its correlation with ZPD as it is meant as a practical implementation of the theory into education, but it is too simplified from the perspective of ZPD and does not consider its diversity. Some also criticise it for straying away from Vygotsky's ZPD (Margolis, 2020). According to Vygotsky learning, in ZPD is a joint experience, but scaffolding can sometimes be seen as teacher lead learning instead of a shared experience (Margolis, 2020).

2.2.3. Theory of language; Vygotsky's inner speech

Vygotsky studied human development and development of language from ontogenetic perspective (Vygotsky & Kozulin, 1986; Ehrich, 2006). Ontogenetic perspective aims to study individual development and changes from the perspective of individual interests rather than from actual-genetic perspective which is more interested in the interaction of environment and working interest (Krapp,

2002). As part Vygotsky's theory about learning and development and the role of language at the root of all human behaviour he introduced a theory in which language and specifically speech can be divided into three forms (Jones, 2009). Those three forms of speech are "external", "egocentric", and "inner" speech (Jones, 2009). Vygotsky believed that language worked as a tool for the development of cognition and therefore for the development of thought (Masuda, Arnett & Labarca, 2015). Vygotsky explained "that thought has a social and external origin" which develops into internal function (Masuda, Arnett & Labarca, 2015, p. 10; De Guerrero, 2018).

External speech is the first form of speech in humans (Jones, 2009). At the early stages of human development, the communication is social, and the child uses external speech which can also be called social speech (Ehrich, 2006). Unlike inner speech, social speech is always vocal, and it is used to address other people, therefore it is language from oneself directed to others (Ehrich, 2006; Jones, 2009; Pass, 2004). As mentioned prior in ZPD and scaffolding, the child learns new skills through external practices in collaboration with others before being able to perform them independently or internally (Jones, 2009). Good example of these external practises is a child first learning to read out loud with the assistance of a teacher before being able to read silently and comprehending the text internally (Jones, 2009).

As the child gets older the speech changes from external speech to egocentric speech which can also be described as communicative speech (Ehrich, 2006). For the speech to be able to transform from external speech to egocentric speech the child must have a fully formed external speech (Jones, 2009). In external speech the child has learned and understood the use of words and the basic rules of their language (Jones, 2009). In egocentric speech the child is able to monitor their language in a way that makes it more efficient and understandable (Jones, 2009). Jones (2009) argues that this might result in the language being more efficient but also more ungrammatical. For example, the child does not say "No, I would not like to eat" when asked if they were hungry but instead, they could simply answer "No" (Jones, 2009). In this case the first reply would have been grammatically correct, but the latter is more efficient. Egocentric speech is heavily connected to problem solving (Ehrich, 2006). When a child uses external speech in problem solving, they discuss the steps with another person but a child using egocentric speech can discuss the steps with themselves and therefore use private speech (Ehrich, 2006; Resnik, 2018). Private speech is language that is vocal, but it lacks the communicative characteristics because it is language directed to oneself (Jones, 2009; Abune, 2019; Guerrero, 2018). This use of egocentric speech or private speech in problem solving transfers into inner speech around the age of seven (Vygotsky & Kozulin, 1986; Ehrich, 2006). According to Vygotsky, once inner speech is developed egocentric speech does not disappear, but it is considered to be the origin of inner speech and helps to develop overall cognition (Pass, 2004).

According to Vygotsky, the development of language starts from the root of community and society and works gradually towards inner speech in social contact (Ehrich, 2006). Out of the three forms of speech, inner speech is the last form of speech to develop, and the function of inner speech arises through many steps of development (Ehrich, 2006). Therefore, it is internalized social speech which is non-verbal brain activity that aims to discuss diverse structures with oneself (Resnik, 2018; Ehrich, 2006; De Guerrero, 2018). It is similar to private speech, but the main difference is that internalised social speech is only directed to oneself and not verbalised whilst private speech is (De Guerrero, 2018; Pass, 2004). Simply put inner speech is social speech turned inwards first to private speech and then to inner speech (Guerrero, 2018). Inner speech is a function aimed at oneself as a tool to master linguistic structures internally and independently (Montazeri, Hamidi & Hamidi, 2015). Most often inner speech is in individuals first or second language (Montazeri, Hamidi & Hamidi, 2015). Studies show that often individuals use inner speech to deal with matters related to themselves and their immediate surroundings such as family, friends, and spouses (Morin, Uttl & Hamper, 2011).

According to Vygotsky and Kozulin (1986) the law of inner speech is that it solely consists of predications and therefore it omits subjects. Vygotsky states that it is as much a rule as it is the rule of writing that the written word consists of predications and subjects (Vygotsky & Kozulin, 1986). Vygotsky explained that inner speech has three peculiarities, and those three peculiarities are the following (Ehrich, 2006). Firstly, the sense and meaning of words. In psychology sense is fluid and can change its form in different contexts when meaning is sturdy and remains the same in every context (Ehrich, 2006). Secondly, one word can have many meanings and many contexts and thirdly, words can combine and influence each other (Ehrich, 2006). Meaning and the syntactic predication are the two main forms of inner speech (Ehrich, 2006). Since internalization has a key role in sociocultural theory it also has claims about inner speech which are similar to Vygotsky's claims (Montazeri, Hamidi & Hamidi, 2015; Masuda, Arnett & Labarca, 2015). The two claims of sociocultural theory are, firstly that inner speech can seem social and communicative but it in fact lacks the social aspects of language because it is language directed at oneself as a listener (Montazeri, Hamidi & Hamidi, 2015). As mentioned previously inner speech, and egocentric speech is more abbreviated than external speech (Montazeri, Hamidi & Hamidi, 2015).

3. Second language learning

Second language learning, second language acquisition or foreign language learning can be used to describe any language learned which is not the individuals first language (Loewen & Reinders, 2011). The difference between second or foreign language learning is connected to the way that the language is being learned (VanPatten & Lee, 1990). In second language learning the individual is learning the language because it is necessary to being able to communicate in their current society (Loewen &

Reinders, 2011; VanPatten & Lee, 1990). This means that an individual is learning a language that is not their first language, but it is the main language of the society in which they exist in (Loewen & Reinders, 2011). For example, this could be a Finnish person living in Japan and learning Japanese which is used by the majority of people in their current society. In foreign language learning the learner does not have as immediate connection to the language being learned (Loewen & Reinders, 2011). The most familiar form of foreign language learning is students relying on weekly classes in school to learn a second language (Block, 2003). Identifying which language is the child's first language in most cases is quite simply for it is the language the child start learning soon after birth but identifying this is more difficult in cases where a child is learning two languages simultaneously (Loewen & Reinders, 2011). An individual may learn many languages after their first language but often all these languages learned are referred to as second languages and not for instance third and fourth language (Loewen & Reinders, 2011). In this section of second language learning the term second language learning is used as an umbrella term for any language learned after first language.

The most studied aspects of SLL are how does one learn a second language, how is it that certain individuals are able to learn a second language, what prior knowledge should an individual have to learn a second language and what are the procedures to learning a second language (Block, 2003). Research regarding SLL in connection to inner speech have only started to arise during the 20th century and after Vygotsky's research in the 1960s, researchers started to consider inner speech not only from a monolingual or first language perspective but also from the multilingual and second language perspective (De Guerrero, 2018). An important study for inner speech in SLL was Izhac Epstein's dissertation in 1915 in which he explores the way multilingual individuals think in connection to inner speech (De Guerrero, 2018). Due to new technological inventions used in psychological studies, researchers can now see images of the activity in the brain when inner speech is used by individuals using their second language (De Guerrero, 2018). Overall studies done about inner speech in SLL indicate that inner speech usually goes undetected by teachers and inner speech helps learners to participate in processes that have an important role in the internalization of second language (De Guerrero, 2018).

3.1 Second language learning in sociocultural theory

According to Yoon and Kim (2012) Vygotsky himself did not discuss his theories from the perspective of SLL but other researchers have applied his theories on SLL by using sociocultural theory, ZPD, scaffolding and the three levels of language to wider the understanding of SLL. Using sociocultural theory in linguistics aims to discover the influence that the culture and society of an individual has on their language and language learning (Pérez & McCarty, 2004). Sociocultural theory theorises that language first appears between two individuals instead of appearing at an individual level first (Hughes, 2021). Language appears first in interaction with at least two people and only then

becomes independent (Hughes, 2021; Yoon & Kim, 2012). Therefore, language learning is dependent on the mediation provided by others (Hughes, 2021; Pérez and McCarty, 2004). Pérez and McCarty (2004) explain that according to sociocultural theory language learning and SLL are a result of social practises.

Sociocultural theory in SLL is described as an individual eventually taking over new knowledge and comprehending it (Block, 2003; Lantolf & Thorne, 2006). This is linked to the Russian word “Prisvoit” which means to adapt something to oneself and to make it one’s own (Block, 2003; Lantolf & Thorne, 2006). According to sociocultural theory, language is not a ready formed function but is instead a tool of mind which contributes to the overall development of the brain and high functions (Swain & Deters, 2007). With the use of languaging a human can develop their overall cognition (Swain & Deters, 2007). Languaging is the use of any form of language whether it is vocal, internal, or written (Swain & Deters, 2007). Languaging is a process of making meaning of language and during this making of meaning the individual is engaging in learning (Loewen & Reinders, 2011; Masuda, Arnett & Labarca, 2015). Languaging can be directed towards others, but it can also be directed towards oneself in the form of private speech or inner speech (Loewen & Reinders, 2011). With the use of vocal or written language the thinking and internalization allows the individual to process complex contexts thus creating and action of comprehending which as mentioned prior is an important step in learning and scaffolding (Swain & Deters, 2007). According to cognitive theories such as sociocultural theory, learning a language happens through the general learning skills and they claim that learning a language should follow the same general steps of learning similar to learning how to ride a bike (Loewen & Reinders, 2011; Tahmasebi & Yamini, 2011). In these cognitive theories, it is not often highlighted how an individual learns or why a certain individual was able to learn a language but is more focused on how language is acquired and how an individual uses the language (Loewen & Reinders, 2011).

3.1.1.Inner and private speech in second language learning

Individuals are not merely vessels controlled by external means but instead they are active participant by placing themselves into social events and practises (Lantolf & Thorne, 2006). As mentioned prior in sociocultural theory the internalization of language and language learning is a process of making something one’s own (Lantolf & Thorne, 2006; Block, 2003). Development happens through internalization and in internalization language has a key role (Ehrich, 2006). Learning a second language does not only include learning the words and grammar of the language but also being able to communicate with others which requires self-communicative tools such as private speech and inner speech (De Guerrero, 2018). Inner speech has proven to have an important role in language learning (Ehrich, 2006). When a child is learning a second language the learning process starts with

observation, which slowly changes into self-directed vocalization and social speech (De Guerrero, 2018). The child uses private speech as a tool to rehearse, repeat and self-regulate their SLL and as the amount of verbal private speech decreases the language develops into internalized inner speech (De Guerrero, 2018). Therefore, private speech is used for internalizing purposes in SLL and some research shows private speech to have positive effects on learning the vocabulary of a foreign language (De Guerrero, 2018). Repetition is found to be the most common form of private speech in SLL but there are many other forms of private speech in SLL such as vicarious response; manipulation of utterance, “forms and structures; reading aloud; commenting” and self-rehearsal (De Guerrero, 2018, p. 11; Montazeri, Hamidi & Hamidi, 2015). Repetition is used to receive a connection to the utterance of a new word with the assistance of an adult or a peer much like in scaffolding and ZPD (Montazeri, Hamidi & Hamidi, 2015). Through repetition or imitation, the child learns the utterance in collaboration and eventually is able to use them independently (Masuda, Arnett & Labarca, 2015). In vicarious responses the child answers a question asked by a teacher or similar individual privately (Montazeri, Hamidi & Hamidi, 2015). The step of manipulation is used once the utterance of the word or a sentence is mastered, the individual can manipulate the word privately without the assistance of another individual (Montazeri, Hamidi & Hamidi, 2015).

When learning a language, the individual must bring the information heard to their inner speech to make sense of what is being said (Murphy, 1989). Listening is part of language learning, and it has an important role for it requires the listener to make rapid interpretation of the message being said (Murphy, 1989). By using instruction to teach students a second language the students learn how to listen and make the interpretations of the message in realistic situations which might encourage the students to be more engaged, attentive and to have self-confidence (Murphy, 1989). The student learns in the interaction with the teacher and other social events by making these interpretations (Pérez & McCarty, 2004). With the use of listening the learner can practise naturally their intrapersonal thinking, and to learn to find the main purpose of the information heard (Murphy, 1989). Solely listening does not develop a second language but listening and discussing in combination can develop SLL (Murphy, 1989).

3.1.2.Scaffolding and ZPD in second language learning

As mentioned prior in sociocultural theory the learner gets familiar with the habits and values of their society in the assistance of a more knowledgeable member (Hall, 2022). Therefore, the interaction between a teacher and a student has a detrimental role in creating an efficient learning environment in which a student is able to learn a second language (Hall, 2022). Peer-peer review has an important role in SLL and this statement is supported by Vygotsky’s sociocultural theory (Saadat & Alavis, 2020). The teacher’s role is to be a facilitator of peer-peer interaction and teaching SLL as a joint activity between the teacher and between peers (Yoon & Kim, 2012). The teacher should create an

inclusive classroom in which the students participate in peer activity (Yoon & Kim, 2012). In this process the students should be placed as active participants, rather than the teacher having the only role in the learning (Yoon & Kim, 2012). During SLL there is different second language activities such as small or big group discussion; group, team, or pair work, all of which support this peer-peer interaction (Hall, 2022). In other words, SLL is mediated through society in interaction with multiple participants and slowly turns into inner speech (Ehrich, 2006).

Using scaffolding in language learning the learner can gain more control over their use of language (Loewen & Reinders, 2011). Saadat and Alavis (2020) argue that scaffolding in SLL can be divided to have four types. Those four types are 1. meta-scaffolding, 2. linguistic scaffolding, 3. affective scaffolding and 4. under-scaffolding (Saadat & Alavis, 2020). Meta-scaffolding includes multiple other forms of scaffolding such as “metalinguistic scaffolding, gestural scaffolding, resource providing, contextualization and audio-visual organizers” (Saadat & Alavis, 2020, p.4). Linguistic scaffolding includes for instance an important aspect of SLL which is when the teacher shifts from the learners first language to their second language (Saadat & Alavis, 2020). Saadat and Alavis (2020) state that linguistic scaffolding also includes modelling and echoing which connects to the teacher shifting from the learners first language to the second language. Effective scaffolding includes emotional scaffolding and tracking and therefore encouragement is found in effective scaffolding (Saadat & Alavis, 2020). Under-scaffolding includes “misscaffolding, falsifying scaffolding and non-comprehended scaffolding” (Saadat & Alavis, 2020, p.4).

In sociocultural theory it is important that the teacher is aware of the prior knowledge of the students and knows their level (Yoon & Kim, 2012; Hammond & Gibbons, 2005). The teacher should use the students' psychological tools as an assistance in teaching to mediate the students learning (Yoon & Kim, 2012; Masuda, Arnett & Labarca, 2015). Because the teaching should be adjusted to the students individual level it is important to note that as mentioned prior, ZPD should be flexible and full of possibilities rather than being stable and fitting to a certain mould (Yoon & Kim, 2012). This also means that the students possible development level is constantly changing and flexible (Yoon & Kim, 2012). This explains Vygotsky's focus on the potential development and future learning in SLL as he stated that learning is transformation from one level to the next (Yoon & Kim, 2012).

Yoon and Kim (2012) argue that the instructions and tasks should be modified according to the student's level and potential for successful SLL learning, since all students are in different stages of development. The teacher's challenge is then to consider how to adjust the SLL teaching so that it suits the diverse levels of the classroom (Yoon & Kim, 2012). The teacher should support the students SLL by using language as the main mediated tool (Yoon & Kim, 2012). The goal of this according to Yoon and Kim (2012) is to transfer the learning from assisted to independent. The teacher being the

more capable person in SLL scaffolding facilitates their own language use in a way that support the learning so that the students are able to transfer “from interpsychological plane to intrapsychological plane” (Yoon & Kim, 2012, p. xix; Masuda, Arnett & Labarca, 2015). Due to this transfer “from intersychological plain to intrapsychological plane” the students are able to transfer their language from social and external to individual and internal (Yoon & Kim, 2012, p. xix).

Scaffolding and ZPD in SLL has been criticised for similar reasons as to why they are criticised in education in general. They are criticised for their holistic perspective and having too much emphasis on the teacher’s role (Yoon & Kim, 2012). Similarly to ZPD in all forms of education, it is criticised in SLL for a lack of allowing the students to participate in the learning (Hall, 2022). It is claimed to strengthen the teachers control and as a result not strengthening the students’ learning, when others argue that it is instrumental for learning (Hall, 2022). With ZPD in SLL there is a concern that its definition is too loose and for it to be efficient it should be directed solely to a specific level in child development (Masuda, Arnett & Labarca, 2015). Some suggest that ZPD should have a different name in SLL to properly describe the theory as an educational tool specifically suited for SLL (Masuda, Arnett & Labarca, 2015).

4. Discussion

Throughout this thesis a clear understanding of what are the supporting theories of inner speech is created. Vygotsky and his theories are used as a base for this thesis since Vygotsky can be considered as the creator of sociocultural theory and therefore also the creator of inner speech (Masuda, Arnett & Labarca, 2015; Murphy, 1989; Mocombe, 2018). Internalization has been discussed prior to Vygotsky’s studies but inner speech was dismissed by other psychologists such as Piaget (Pass, 2004; Fernyhough, 2008). To fully understand the phenomenon of inner speech and inner speech in SLL the supporting theories are required (Masuda, Arnett & Labarca, 2015).

Vygotsky had strong focus on society being an influential factor in all high human functions such as thought, language and learning (Turuk, 2008). Vygotsky explains that culture and society should be incorporated in the aim of understanding the human development (Block, 2003). Society influences our consciousness and therefore it always affects the behavior of an individual (Turuk, 2008). Therefore, human learning and teaching can never be fully neutral for we represent the society in which we exist in (Turuk, 2008). Learning is not an individual process but instead the child uses the tools of society to interpret their surroundings (Turuk, 2008). External functions are transformed into internal operations and as a result the influence of society is internalized into an individual (Ehrich, 2006). Vygotsky explains that the development of language starts from society and slowly develops towards inner speech in social interaction with others (Ehrich, 2006). This can be explained by

cognition not merely being psychological and therefore internal, but instead it is mediated society (Hughes, 2021).

As part of Vygotsky's sociocultural theory he introduced a theory in which he divides language and specifically speech into three levels which are external, egocentric, and inner speech (Jones, 2009). All three of Vygotsky's levels of speech are explained in this thesis, but the main focus has been in inner speech. External speech is the first level of speech in humans, and it is social speech that is always directed at others (Jones, 2009; Ehrich, 2006). Egocentric speech is the second level of speech, and it is communicative speech but in egocentric speech the individual has more control over their language than in external speech (Jones, 2009). Inner speech is the last level of speech, and its development is a result of many steps of development (Erich, 2006). Inner speech can be shortly described to be nonverbal language from oneself directed at oneself (De Guerrero, 2018). Private speech is part of inner speech, but they differ due to private speech being verbal speech directed at oneself (Jones, 2009).

Second language learning can be used as an umbrella term for all languages learned after one's first language (Loewen & Reinders, 2011). According to sociocultural theory language is a tool of mind that is always developing instead of being a ready formed function (Swain & Deters, 2007; Pass, 2004). Turuk (2008) explains that in sociocultural theory learning and specifically SLL should happen in a collaboration and not isolated individually. The development of cognition happens through internalization and in internalization language has a key role (Ehrich, 2006). Inner speech in SLL requires the individual to ponder and communicate in a language that is not their first language (De Guerrero, 2018). Inner speech has proven to have an important role in SLL and an individual can use inner speech and private speech in SLL to rehearse, repeat and self-regulate their use of language (Ehrich, 2006; De Guerrero, 2018). Whether an individual can control the inner speech they use in the sense of selecting which word to use and in which language has not been much proven yet (Resnik, 2018). In the early stages of SLL private speech is used as a tool to learn a new language (De Guerrero, 2018). Inner speech and private speech can be used in SLL with the tools provided by sociocultural theory such as scaffolding and ZPD (Yoon & Kim, 2012; Saadat & Alavis, 2020).

It was pointed out as early as the 1990s that the education system and language teaching is in a need of a wider linguistic perspective in research and teaching that are not merely social and external (De Guerrero, 2018). Despite this realization inner speech is not much used in education due to the difficulty of studying and interpreting functions that are internal (Ehrich, 2006; Resnik, 2018). Thus, the use of inner speech by students in SLL goes often unnoticed by educators and therefore they do not take advantage of the use of inner speech in education (De Guerrero, 2018). Since inner speech has proven to have a positive influence in SLL inner speech should and could be used in education

by the teacher providing a learning environment which allows and accepts the use of inner speech (Saadat & Alavis, 2020; Hall, 2022).

Lähteet / References

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