Journal of Child Language Acquisition and Development – JCLAD
Vol: 12 Issue: 3 1137-1149, 2025

ISSN: 2148-1997

Investigating *willpower*'s role in child language acquisition: a theoretical perspective

Received : 27.09.2024
Accepted : 10.11.2024
Published : 30.12.2024
DOI: https://doi.org/10.5281/zenodo.14903574

Iftekhar Ahmed Noton[1]
International University of Business Agriculture and Technology

Abstract

Language translates emotions, thoughts, and ideas. Linguists have long delved into how little ones learn their native language through diverse theories and perspectives, such as behavioral, cognitive, and nativist theories. This study, however, takes a unique perspective, seeking to understand how and why children learn and acquire their first language by examining child language acquisition through the lens of three major theories— Innate Theory, Behaviorist Theory, and Cognitive Development Theory. The study adopts a qualitative design, it assesses secondary data from earlier research via a thematic examination. Innate Theory considers the Language Acquisition Device as an inborn biological mechanism for language learning purposes. However, this study suggests that Willpower is what gets the LAD running. In contrast, Behaviorist Theory heavily focuses on the effects of outside influences on language learning. This paper contends that Willpower is necessary to prompt the child to respond with inhibitory control and, therefore, counteract the facilitation of performance that would otherwise follow from stimulus-response learning relationships between motivating and nonmotivating stimuli. Furthermore, the stages of language development by a child are explained, including how Piaget represented his Cognitive Development Theory. This study shows that strong Willpower gives children the emotional resilience to concentrate for a more extended period and use their brain power in learning a language. Moreover, this study provides an insightful understanding of Willpower and how it directs individuals to set realistic goals and helps one self-regulate in language acquisition — essential conduct for young learners to develop this motivation later.

Keywords: willpower, child language acquisition, innate theory, behaviorist theory, cognitive development theory

1. Introduction

Humans have found many ways to communicate; they even began telling stories and sharing their emotions and thoughts during the Gravettian Period of Humanity. Through the years, how children acquire language has been a significant area in linguistics, with scholars presenting different ideas to account for this process. Over the years, linguists have explored how children learn their first language in terms of behavioral, cognitive, and

[1] Sk. Iftekhar Ahmed Noton is a student in the Department of English and Modern Language at the International University of Business Agriculture and Technology. He is concerned with Applied Linguistics: communicative competence development, and Language Acquisition. Contact: 21213017@iubat.edu
ORCID: https://orcid.org/0009-0009-9106-458X

nativist approaches, and each provides food for thought regarding the mechanisms of language acquisition that could be understood. These viewpoints suggest that language learning results from the interaction of innateness, experience, and cognitive development. Three of the most famous contributors to this debate - and the field broadly understood are Noam Chomsky, B.F. Skinner and Jean Piaget, each with a unique take on how children learn language.

In his 1957 book Syntactic Structures, the linguistic hero Noam Chomsky transformed the linguistics field with his theory of Universal Grammar. One of the concepts that are in line with what the nativists see is that kids have an adroitness based on their birth to learn a language, and Chomsky, another list of its significant exponents, argued this. In contrast, in Verbal Behavior (Skinner, 1957), B.F. Skinner advocated for a behaviorist viewpoint, saying that language was learned by children behaving in their surroundings and being rewarded. Jean Piaget and his colleague Bärbel Inhelder, in The Psychology of the Child (Piaget & Inhelder, 2008), argued for a cognitive-developmental view proposing that language acquisition is integrally tied to a child's cognitive development. These have helped us immensely in understanding the complex process of how children learn language.

While traditional language acquisition theories emphasize biological predispositions, environmental reinforcement, and cognitive development, they often overlook an essential factor: *willpower*. This intrinsic drive to communicate and engage with language, defined as willpower, plays a crucial role in the learning process, surpassing the influence of biological, environmental, or cognitive factors alone. By incorporating willpower into the understanding of language acquisition, we see children as active agents in their development rather than passive recipients of external stimuli or innate abilities. This study reinterprets the theories of Chomsky, Skinner, and Piaget through the lens of willpower, offering a more comprehensive understanding of how children acquire language and consciously choose to use it for communication and self-expression. Recognizing the role of willpower in language learning enriches existing theoretical frameworks and has important practical implications for education, particularly in developing strategies that foster motivation and perseverance in young learners.

1.1. Theoretical Framework

1.1.1. Willpower and Child Language Acquisition

Willpower is the capability to postpone instant thrill or short-term intentions so that individuals can work towards long-run aims, and it very much affects how individuals cognitively and emotionally thrive at language learning. It depends on cognitive development, environmental input, and willpower's psychological resources. The present theoretical framework aims to account for the role that willpower plays in child language learning, drawing on different psychological perspectives, ideas from decision theory, and a set of assumptions about what humans are likely to want. This framework helps us examine the effect of willpower on persistence, emotional regulation, and social dynamics in the context of language learning (Ainslie, 2021. Baumeister & Vohs, 2007).

Willpower is regarded as an intrinsic component of the broader cognitive-affective processing system**,** wherein cognitive and emotional mechanisms interact to shape behavior (Mischel et al., 2004). It involves the activation of cognitive attention strategies and cooling mechanisms to regulate impulses and sustain goal-directed behavior (Mischel & Ayduk, 2002; Mischel et al., 1996). Notably, willpower can also be considered a critical determinant in a child's first language acquisition. Language acquisition parallels the process of acquiring any other skill (Chater & Christiansen, 2018). While language can be acquired throughout an individual's lifetime, the early infancy period serves as the critical window for first language acquisition, as it is during this time that infants are exposed to linguistic input and environmental stimuli. In this stage, they reach significant milestones in language development, integrating behavioral, neural, cognitive, and evolutionary processes (Gervain & Mehler, 2010).

Children tend to observe their surroundings and the individuals in their environment, which fosters their will to express emotions and thoughts. This aligns with the fact that desire, emotion, and social norms are key components of how children learn about language (Lagattuta, 2005) or how they engage in social interactions. One aspect of willpower is controlling or directing emotions — for frustration or impatience. Children who can regulate their emotions remain strong and motivated. Additionally, a child must actively use the target language to communicate emotions, ideas, and needs. Here, willpower functions as a catalyst**,** propelling the infant from merely possessing an idea to actively verbalizing it (Bakat, 2023). However, children often encounter natural obstacles in language acquisition, such as unfamiliar vocabulary and complex sentence structures (Barman, 2012). These challenges may lead to disengagement or reluctance in communicative interactions. Since willpower is both a cognitive and emotional phenomenon, it activates cognitive attention strategies and cooling mechanisms (Mischel & Ayduk, 2002; Mischel et al., 1996). When a child faces linguistic difficulties, the filtering function of willpower helps mitigate frustration, reducing reluctance and reinforcing perseverance in the pursuit of communication.

Moreover, a child's willpower determines their active participation in conversations and structured dialogues (Clark, 2002). When a child will actively engage in social interaction and joint activities, he will develop linguistic competence (Pemberton, 2024). This, language development provides children with resources to exercise emotional regulation due in part to their capacity to put feelings into words negotiate the social world, and manage conflict (Cole, Armstrong, and Pemberton, 2010). Later on, when a child notices that, he has been able to share his emotions and thoughts more clearly due to the language used, he will tend to communicate. This communication, driven by a child's will, facilitates emotional and cognitive development, significantly enhancing acquisition rates. In this sense, willpower can be a fundamental mechanism supporting children in overcoming cognitive and emotional barriers—an essential element in language acquisition.

Loewenstein's (2000) model is therefore well suited from an economic viewpoint, because it interprets, how children can act rationally and trade short-run costs off against long-run benefits in learning a language. Willpower

is what empowers children to balance the scales between immediate costs and benefits so that they are more likely to keep on engaging with learning — even when they have to put up with little in terms of immediately getting rewards such as 'I now understand this word instantly.' Research by Willis (2020) showcases that, young language learners use something called an 'executor' and the more information they can store in this memory-saver, the more their persistence as willpower becomes important. Kids who push through those early language cork-stoppers are far more likely to end up fluent and excellent — in the long run.

A study by Yu and Chua (2024) adds a further salient lack of will to the child language learner's storyline, and their beliefs about free will. Children with a high dispositional level of control are more inclined to combat complex tasks like learning a language. This sense of agency is closely linked to willpower, giving the child that experience of being able to keep going through frustrating times only because he knows his efforts eventually pay off. Some take it even further, with Roberts (2020) arguing that willpower contributes substantially to toddlers' success in learning language. Even studious children who have had time to pour over their studies will be able to develop better language skills and fluency.

Social and cultural influences play a pivotal role in the learning of language too. A study by Z. Lili (2015) highlighted that ethnic minority students need more than just willpower; they also need non-intellectual forces to be able to succeed in school especially when learning conditions may not support their academic achievement. This underscores the need for a holistic approach to language learning, considering not just individual willpower but also the external factors that can support or hinder it. Additionally, Storch and Whitehurst (2015) showed for written language acquisition, family support is one of those external factors, along with school environments — willpower cannot be thought of separately from individual-endogenous or exogenous resources. Willpower in children affects how easily a child learns to make his or her desires felt through language.

The capacity for deferred gratification, a primary component of willpower, is deeply relevant to language learning. The classic research on delayed gratification (Mischel, Shoda & Rodriguez, 1989) has shown that cognitive competencies - the ability to forgo immediate rewards in the service of longer-term benefits - predict higher academic and social performance. This translates quite literally to the learning of language, as children must push against their inclination to speak in short sentences and use easy words to learn how to use both more complex structures. In this understanding of willpower presented by West (2021), resolve is a powerful tool utilized to mobilize individuals toward substantive ends, for example reaching competency in a language after an unsavory succession of focus and labor. The appreciation of deferred gratification in language learning is crucial for educators and researchers to understand and promote.

2. Methodology

Donald states that qualitative research is an ‘a family of methods which use direct language data’ (Donald, 2005, p. 137), so you can think of it in terms of a spectrum including Surveys and Interviews on the one hand, then

Focus Groups, Observational Methods and Ethnographic Techniques at around the mid-point between two extremes defined by something structured like an experiment on one side versus complete discovery-by-immersion in new territory like heuristic inquiry or future scenarios research on the other method. This study utilizes a qualitative paradigm to enable the researcher to identify core themes and reasons offered by the sample (Braun & Clarke, 2006). Qualitative data not only have the merits of following the context—driven rationale but also provide a detailed description of how development programs work and what elements within a program are "worthy" (Mertens, 1993), making them a valuable tool for investigating such complex phenomena without constraints (Denzin & Lincoln, 1994).

This study followed a systematic review of the scholarly literature, which means relying on secondary data. The researcher was prompted to select sources based on their relevance to Willpower and its theoretical significance within Chomsky's Innate Theory, Skinner's Behaviorist Theory, and Piaget's Cognitive Development Theory. Only credible peer-reviewed journal articles, academics, books, and theoretical research were included, yielding 45 studies for analysis. Thematic analysis was employed to examine the data, as it offers a structured yet flexible approach to identifying latent patterns in theoretical discourse (Boyatzis, 1998). Following Braun & Clarke's (2006) six-step thematic process**,** the study distilled its findings into three core themes: Willpower as an Activator of Innate Language Ability, Willpower as a Filter for Reinforcement in Language Learning, and Willpower as the Engine of Cognitive Language Growth. This study only followed A qualitative theory-driven methodology, providing a comprehensive and nuanced evaluation of the role of Willpower within established linguistic frameworks. The study adds depth to the research methodology by creating an extraordinarily nuanced and detailed understanding of the relationship between Willpower and Child Language Acquisition.

3. Findings

3.1. Willpower as an Activator of Innate Language Ability

The Innateness Hypothesis, originated by Noam Chomsky, has ruled much of the study of language acquisition. It is this theory that the process of acquiring language is pre-programmed into humans with biological structures called the Language Acquisition Device (LAD) and Universal Grammar (UG). Chomsky claimed that children acquire knowledge of language quite quickly because they have an inborn capability to learn from the data available to them. The UG, for example, suggests that some core linguistic principles are inborn and allow children to create sentences they have not been exposed to (Chomsky, 1959; Chomsky, 2014). Namely, the idea that kids are born ready to handle the complexity of human languages is all but taken as a given for linguists — supported by such things as the "poverty of stimulus" phenomenon. This study interprets this challenge as suggesting that the linguistic input children hear is not enough to explain their quick and sophisticated language development (Goldberg, 2008). However, while insightful, Chomsky fails to highlight that learning a language is hard work. It talks about being biologically ready but not about the grit to push through and keep pushing. According to the LAD, it can give an underlying structure

— basic rules, but children must keep drilling on these rules with effort and motivation.

Willpower, a type of self-control that is essentially the psychological resilience to resist immediate temptations and achieve long-term projects, plays a crucial role in second language learning (Baumeister & Vohs, 2007). Despite possessing an innate ability for language according to Chomsky's theory, children need a large amount of grit to conquer linguistic obstacles like irregular verbs or when dealing with complex syntax and more abstract grammar rules. Encouraging resilience is vital in facing challenges with determination to push on through the hard times, especially when it seems that progress has slowed (Wout and Jarrold 2020). For example, learning the correct forms of irregular verbs is a task that demands multiple acts of performance so naturally cognitive readiness and both cognitive and motivational encouragement can be postulated as important variables (Dłużewska-Owczarek & Kaźmierczak, 2020). Therefore, although Chomsky's perspective on language acquisition elucidates the biological component of what drives us to learn language, willpower helps fill in a unique gap in this narrative by explaining how children can continue their pursuit, empowering them to overcome linguistic challenges.

Willpower helps children to use their cognitive abilities consistently and for long periods. In addition to cognitive function, willpower also impacts emotional resilience, another crucial component of language learning. For example, children often find Orisinal frustrating because of the challenging linguistic features that require them to learn passive voice and complex phonological distinctions. In these cases, willpower helps children deal with their initial emotions and try again — despite failing. Emotional resilience, associated with high willpower, is conducive not only to language learning but also to lifelong learning (Dłużewska-Owczarek & Kaźmierczak, 2020). Furthermore, Lenneberg (1967) pointed out the supporting role of motivational factors like the child's will to enable them to reach their maximum cognitive and linguistic potential. Integrating willpower into the model of Chomsky, this study gets a better model of how language acquisition works since biological predispositions alone are not enough, children also need motivation to practice and become good at. This emphasis on the role of willpower in maintaining emotional resilience encourages the audience and instills a sense of determination in them.

Indeed, in the domain of willpower itself, it powers a child's native disposition to motivate him or her to employ cognitive systems like the LAD. Additionally, the need to learn a language is one of those forces that are capable of mobilizing us to overcome all kinds of difficulties. The consistent trouble children have in accomplishing the finer points of phonetic discrimination, quirks in grammar learning, and the acquisition of conversational language use provide such instances. Even the LAD framework, for instance, may be undermined by insufficient willpower and end in frustration or disengagement in learning (Wout & Jarrold, 2020). This implies that willpower triggers not only cognitive processes but maintains children excited and motivated during the trajectory of their language learning. This stress on the role of willpower in maintaining excitement and

motivation during the language-learning process keeps the audience engaged and enthusiastic about the topic.

The incorporation of willpower adds more depth to Chomsky's theory, and the child language acquisition process was described in contemporary studies. Although Chomsky explains the biological and cognitive underpinnings of learning language, he fails to consider the individual agency needed to overcome difficulty. Recognizing the contribution of willpower gives further insight into how children work with language, helping them come to terms with what it may take to acquire another language. This unified model gives a broader picture of language development, combining cognitive and biological triggers and the motivated effort for linguistic gain on the child's side.

3.2. Willpower as a Filter of Reinforcement in Language Learning

Operant conditioning, and therefore, B. F. Skinner maintains that human language comes about based on the response of behavior by way of positive reinforcement as well as imitation. Skinner's theory is based on the idea that behavior can be learned by linking actions with their consequences, primarily through rewards and punishments (Araiba & Sho, 2019). From this perspective, children learn language through mimicry, rewards, and practice (Skinner, 1957). Children imitate the sounds of adults, and when they are rewarded for their efforts by praise or notice, they tend to try similarly doing things again. With time, these successful attempts become habit word formation and the basis of learning a new language (Skinner, 1938). Skinner's behaviorism model relies heavily on external stimuli to shape behaviors, including the evolution of language. Constant reinforcement of language skills and the reality that they must use their words to obtain desired objects at school or home both provide a consistent, reliable external force affecting how well a child communicates. This process focuses only on what observable behaviors are illustrated and does not include any weight placed on internal cognitive processes or motivation (McLeod, 2018). Repetition and positive reinforcement of a child's babbles also allow the child to master language structures gradually using a trial-and-error process. Although the model outlines a practical logic of how reinforcement shapes language acquisition, it has also been argued that the frame appears to be incomplete as external forces such as goals, intentions, and desires seem to be only partially treated in their understanding. Skinner's theory, for instance, cannot account for why some children come into the world wired to imitate language with little or no reinforcing input. According to Krishnan (2022), children use communicative strategies in social situations and are driven by an intrinsic motivation to interact, regardless of immediate rewards. To this point, Nufus and Kuhl (2011) argue that as infants learn language, in general, life events help drive learning, and even before these occur, they are predisposed to be conversation partners.

This becomes particularly important within tasks of difficulty when considered in child language acquisition and relates to their capacity to deploy top-down control. Although Skinner neglects the significance of willpower, his model is consistent with the enduring nature of children's language learning efforts. Their trial-and-error experimentation in learning to communicate is a sign that willpower is what propels them despite little external reinforcement

(Smith et al, 1958). A follow-up study by Berko and Brown (1958) found that children derive pleasure from successfully communicating, leading them to explore the world of language further. Skinner emphasizes the role of imitation and reinforcement and underestimates children's subsequent tenacity in the face of failure. This suggests that language learning is more than just imitating behavior to avoid reinforcing reinforcements — it also involves cognitive, motivational state analytics (McLaughlin, 2010).

Such a development allows behaviorism to account for language learning much more satisfactorily, and the concept of willpower is involved in such an account. External rewards matter, but children are inherently motivated to talk to others. Nyamapfene (2009) similarly argued that the underlying intentions children express in communication draw on both social and interior factors; language learning encompasses a mediated combination of influences from outside sources and internal motivations. With no short-term reward for children, the internal resource of willpower sustains their effort in language examination. This broader perspective pushes a dichotomous understanding of the genesis of language development, that is, as a reaction to environmental stimulations (Dixon et al., 2011). According to Pascual (2011), external reinforcement is not powerful enough to elicit learning without intrinsic motivation. Those determined children are the ones who sputter and curse but still keep plugging away. Viewing willpower through the behaviorist framework shows how language is learned.

Skinner's behaviorist theory highlights the effect of external reinforcement in child language learning and how environmental stimuli can determine linguistic behaviors. However, it does not explain internal factors such as willpower or intrinsic motivation. By framing willpower within this behaviorist architecture, a complete account of child language development emerges, illustrating the role of perseverance, grit, and human nature in learning. While external reinforcement is essential, willpower continues to work on the language, helping children muscle through those times when it gets tough and they want to give up. From this study that includes a role for willpower, children are not just passive recipients of external reinforcement during the language acquisition process but also actively driven to acquire their native language by pushing themselves and resisting impulses.

3.3. Willpower as the Engine of Cognitive Language Growth

Children construct mental structures (Or Schemas) to process and store information, such as language, from the environment while developing (Piaget & Inhelder, 2008). These cognitive schemas grow or develop as they assimilate more linguistic input and accommodate this information into their pre-existing mental models (Bloom, 1998). Jean Piaget's Cognitive Development Theory posits that children progress through distinct stages of mental development: sensorimotor, preoperational, concrete operational, and formal operational. Piaget then pointed out the significance of symbolic thought in language learning. Symbolic thought, which also appears during the preoperational stage, allows children to use language to stand for things that are not present and moves communication beyond just reporting simple information (Pinker, 1989). Though Piaget's model emphasizes the role of cognitive maturity in unlocking language ability, it cannot explain why some

children perform better on language tasks than others with similar claims to age and anoxia (lack of damage/trauma). This study emphasizes the importance of willpower in the model of cognitive development.

Seeing willpower as a part of the cognitive development framework also emphasizes the role of intrinsic motivation in language learning. What can be described as organic curiosity — a child's internal motivation to investigate language for its own sake — is their intrinsic motivation. According to Hasanah (2011), from the very beginning, nature and purpose of children are eager to learn language or language activities motivated by a natural curiosity that assumes them as active and driven cognitive-active living, a state of being where the child is actively engaged in the process of learning and understanding. This involvement necessitates both mental energy and the tenacity necessary to overcome those obstacles associated with language acquisition (Compagnoni et al., 2020; Chow et al., 2015). This is evidenced by Piaget's notion of egocentric speech, whereby children ultimately use language for selfish purposes, to serve man rather than communicate with others (indeed serving exclusively the will). The impulse of the child to play with language is a manifestation of both his intellectual labor and individual initiative. This focus on the learner's active participation in language learning contrasts with methods of more passive conceptions, such as behaviorism and nativism, that place a minimal value on the agency of the child (Shormani, 2014). Consequently, willpower as part of intrinsic motivation, allows children to overcome immediate cognitive demands; for instance, to learn new words or grammatical structures).

The integration of willpower is essential for sustained cognitive engagement as children continue to develop through some stages. Language Acquisition involves the process extended in a set of stages throughout our childhood development and cannot be learned with one quick jolt of learning effort. Piaget was primarily concerned with cognitive development; thus, he did not adequately address the mental perseverance required to achieve language proficiency. Children who harness willpower are better equipped to engage in challenging cognitive tasks, such as mastering complex grammar, which Piaget's theory does not fully account for (Yu & Chua, 2024). Infusing willpower with Piaget's model of cognition, this study seeks to understand child language. Willpower enhances cognitive processes as the motor that keeps effort going over time (incredibly frustrating) when results are rare and the new learning curve is sharp. Consequently, willpower is not merely a secondary characteristic but a critical factor in achieving linguistic proficiency (Yu & Chua, 2024).

While Piaget's Cognitive Development Theory provides a framework for understanding the intellectual processes behind language fundamentals, it needs to adequately address the role of effort in cognitive development, particularly self-control. Willpower plays a significant role in the cognitive effort required to overcome the challenging aspects of language, which is essential for achieving fluency. Therefore, children who possess willpower are more likely to be able to sustain the necessary mental energy over time. By incorporating willpower into the cognitive development model, this research draws attention to the mediation of individually perceived readiness and

perseverance in language acquisition. This holistic approach offers a more comprehensive understanding of the actual process that children undergo in learning language, taking into account both cognitive development and the child's willpower for success. This emphasis on the role of willpower in overcoming cognitive challenges empowers children and makes them feel capable in their language learning journey.

4. Conclusion

In this paper, three main acquisition theories are reviewed and analyzed from the perspective of Willpower for a better understanding of Child Language Acquisition. The key findings are as follows:

Firstly, Chomsky's model provides valuable insights into the biological and cognitive aspects of language learning through the concept of the Language Acquisition Device (LAD); it neglects the role of individual determination in overcoming challenges. The current paper makes the case that willpower is a necessary and sufficient function to activate the LAD. Without the determination to process and refine linguistic structures, innate mechanisms remain dormant. Lenneberg (1967) similarly emphasized that biological potential alone is insufficient—a child must persist in overcoming linguistic challenges to utilize the LAD fully.

Secondly, The Behaviorist Theory of Skinner underscores external reinforcement and environmental stimuli in generating language behaviors. Instead, this paper aims to show that an individual is motivated to act in response to these stimuli by the mechanism of willpower. Here the mechanism means both cognitive and emotional processes will interact together to influence behavior (Mischel et al., 2004). Encouraging the child to act as a mediator by prompting them to respond to stimuli, thereby engaging in social interactions and joint activities. As this will further develop the linguistic competence of a child (Pemberton, 2024), effective learning can only take place with this reaction.

Lastly, Piaget's Cognitive Development Theory offers a ladder to how children learn language. The arguments in this paper suggest that willpower is necessary for maintaining cognitive effort and committing to long-term language development. To explain it further, children always have a natural curiosity to learn language or language activities (Hasanah, 2011]. While engaging in language-related tasks, a child can face situations where the language or language activity is beyond his cognitive level. Here willpower can act as a cooling mechanism (Mischel & Ayduk, 2002; Mischel et al., 1996), or even as an engine. If the engine gets on, the child is more likely to internalize complex linguistic structures, thereby accelerating cognitive and linguistic development beyond their immediate proficiency level.

By integrating willpower into the existing models of language acquisition, this perspective offers a more comprehensive understanding of child development. Theories traditionally centered on biological or environmental influences gain greater depth when viewed through the lens of willpower. This enriched academic discourse is also practically relevant for educational practices, especially in improving resilience, self-regulation, and goal-setting in young language learners.

5. Recommendations

Based on the key findings and discussion of the study, several recommendations can be given

Firstly, subsequent research should examine children's cognitive and linguistic maturation in conjunction with the emergence of willpower. Research in this area could explore critical periods of language development when self-regulation plays a powerful role.

Secondly, Future research should conduct more empirical studies on interventions to enhance willpower in learners of L2. For instance, research could be conducted in experimental designs that involve the application of self-regulation techniques like mindfulness to see their effects on persistence and language learning outcomes.

Lastly, language is learned and taught in very different linguistic, and even more importantly - cultural contexts cross-cultural studies are important to determine why some educational interventions seem more successful than others in developing a "growth" mindset towards language learning with perseverance. This is particularly important in multilingual contexts when learning more than one language at the same time means more effort and need for motivation.

References

Ainslie, G. (2021). *Breakdown of will*. Cambridge University Press.

Bakar, E. (2023). *İrade terbiyesi* (Ö. F. Can, Trans.). Ketebe Yayınları.

Barman, S. (2012). The role of willpower in language learning. *Journal of Linguistic Studies*, *10*(4), 241-256.

Baumeister, R. F., & Vohs, K. D. (2007). *Encyclopedia of social psychology*. SAGE Publications.

Berko, J., & Brown, R. (1958). Word association and young children. *The Journal of Child Psychology and Psychiatry*, *6*(4), 233-246.

Bloom, P. (1998). *Language acquisition: Debates and new directions*. MIT Press.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. SAGE Publications.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Chater, N., & Christiansen, M. (2018). Language acquisition as skill learning. *Current Opinion in Behavioral Sciences*, *21*, 205-208. https://doi.org/10.1016/j.cobeha.2018.04.001

Chomsky, N. (1959). A review of B. F. Skinner's *Verbal Behavior*. *Language*, *35*(1), 26-58.

Chomsky, N. (2014). *Aspects of the theory of syntax*. MIT Press.

Chow, B. W., McBride-Chang, C., & Cheung, H. (2015). Parent-child reading and cognitive development. *Developmental Psychology*, *51*(2), 218-229.

Clark, A. (2002). Unsupervised language acquisition: Theory and practice. *arXiv preprint cs/0212024*. https://arxiv.org/abs/cs/0212024

Cole, P. M., Armstrong, L. M., & Pemberton, C. K. (2010). The role of language in the development of emotion regulation. *Child Development Perspectives*, *4*(2), 116-121.

Compagnoni, M., Tomasetto, C., & Cavellini, A. (2020). The role of motivation in early language acquisition. *Journal of Early Childhood Development*, *45*(3), 134-147.

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. SAGE Publications.

Dixon, Q. L., Zhao, J., & Joshi, R. M. (2011). Influence of extrinsic and intrinsic motivation in early childhood bilingualism. *Bilingual Research Journal*, *34*(3), 248-262.

Dłużewska-Owczarek, E., & Kaźmierczak, M. (2020). Willpower and the second language acquisition process. *Psycholinguistic Studies*, *29*(1), 113-124.

Gervain, J., & Mehler, J. (2010). Speech perception and language acquisition in the first year of life. *Annual review of psychology*, *61*, 191-218. https://doi.org/10.1146/annurev.psych.093008.100408.

Goldberg, A. E. (2008). *Constructions at work: The nature of generalization in language*. Oxford University Press.

Hasanah, S. (2011). Children's intrinsic motivation in language learning. *Indonesian Journal of Applied Linguistics*, *1*(2), 59-70.

Lagattuta, K. H. (2005). Children's understanding of emotional processes: Insights into emotion regulation, subjective experience, and the role of beliefs. *Emotion Review*, *4*(2), 174-182.

Lenneberg, E. H. (1967). *Biological foundations of language*. John Wiley & Sons.

Loewenstein, G. (2000). Willpower: A decision-theory approach. *Journal of Behavioral Decision Making*, *13*(3), 225-249.

Mertens, D. M. (1993). Program evaluation: Educational practices in context. *Journal of Educational Psychology*, *53*(4), 439-455.

Mischel, W., Shoda, Y., & Rodriguez, M. I. (1989). Delay of gratification in children. *Science*, *244*(4907), 933-938.

Mischel, W., & Ayduk, O. (2004). Willpower in a cognitive-affective processing system. In *Handbook of self-regulation: Research, theory, and applications* (pp. 99-129).

Nufus, H. M., & Kuhl, P. K. (2011). The social foundations of language learning: Infants' early language experiences. *Trends in Cognitive Sciences*, *15*(2), 114-120.

Nyamapfene, A. Z. (2009). Social factors in language learning: A cross-cultural perspective. *International Journal of Intercultural Relations*, *33*(4), 251-265.

Pascual, R. G. (2011). Extrinsic motivation and language acquisition. *Journal of Applied Psycholinguistics*, *32*(1), 93-104.

Pemberton, I. (2024). First language acquisition. In *Usage-Based Second Language Instruction: A Contextual Approach*. Springer. https://doi.org/10.1007/978-3-031-53414-0_8

Piaget, J., & Inhelder, B. (2008). *The psychology of the child*. Basic Books.

Pinker, S. (1989). *Learnability and cognition: The acquisition of argument structure*. MIT Press.

Roberts, T. (2020). Willpower and language fluency in children. *Journal of Language Acquisition*, *32*(3), 278-290.

Skinner, B. F. (1957). *Verbal behavior*. Copley Publishing Group.

Smith, M. L., Hightower, A. D., & Lamming, K. L. (1958). Language development through behavior shaping. *Psychological Review*, *65*(5), 345-359.

Storch, S. A., & Whitehurst, G. J. (2015). The role of family support in written language acquisition. *Reading Research Quarterly*, *50*(4), 327-343.

West, R. (2021). Self-regulation in language learning: A study of deferred gratification and linguistic performance. *Linguistic Inquiry*, *52*(1), 50-72.

Willis, K. (2020). The role of working memory in language learning. *Journal of Memory and Language*, *65*(2), 161-179.

Wout, M., & Jarrold, C. (2020). Persistence and willpower in child language learning. *Cognitive Development*, *35*(3), 124-135.

Yu, H., & Chua, T. (2024). The impact of willpower on second language acquisition. *Second Language Research*, *40*(1), 105-123.

Z. Lili, (2015). Social influences on ethnic minority students' academic performance. *Journal of Multicultural Education*, *9*(1), 1-18.