

***University of Misan***  
***College of Education***  
***Department of English***



**Study on the Relationship between  
Language and thought based on Sapir-whad hypothesis**

**Presented by**

**Ghadeer Sadiq**

**Supervised by**

**Asst. Anst. Mariam Naeem Hassan**

بسم الله الرحمن الرحيم  
(هذه نعمة من الله، يؤتيها من يشاء، والله ذو الفضل العظيم)

صدق الله العظيم

(سورة الزمر)

## **Dedication**

To my master and master, owner of the age and time (may God Almighty hasten his return) To the people of my heart, to the man of struggle, to the one who instilled Islamic values and principles, to the one who spent the flower of his youth raising his children... my beloved father and my mother.

To the beating heart, to the symbol of tenderness, love and sacrifice, to the one whose sincere prayers were the secret of my success... my dear mother (may God protect them) To my support in this life, my dear brothers, I dedicate this humble effort to them, asking God Almighty to benefit from it, for He is All-Hearing and Answering.

## **Acknowledgements**

I would like to express. My gratitude to my supervisor, (Asst. Anst. Mariam Naeem Hassan)who guided me during this research. I would also like to thank my friends and family who supported me and gave me insight into studying.

I would also like to express my deep appreciation to everyone who helped me, especially my teachers, at all stages of study, thanks to whom I reached this stage

## Table of Contents

<b>Subject</b>	<b>Page</b>
<b>Dedication</b>	<b>I</b>
<b>Acknowledgements</b>	<b>II</b>
<b>Abstract</b>	<b>IV</b>
<b>Chapter One</b>	<b>1</b>
<b>1.1 Introduction</b>	<b>1</b>
<b>1.2 Definition of the Sapir-Whorf Hypothesis</b>	<b>3</b>
<b>1.3 Importance of Language in Shaping Thought</b>	<b>4</b>
<b>1.4 Concepts Related to Language and Thought</b>	<b>6</b>
<b>Chapter TWO</b>	<b>8</b>
<b>2.1 Principles of Linguistic Relativity</b>	<b>8</b>
<b>2.2 Empirical Evidence Supporting the Hypothesis</b>	<b>9</b>
<b>2.3 Role of Culture in Language-Thought Relationship</b>	<b>11</b>
<b>Conclusion</b>	<b>13</b>
<b>References</b>	<b>14</b>

## **Abstract**

The Sapir-Whorf hypothesis, also known as linguistic relativity, posits that the language we speak significantly influences the way we think and perceive the world. This concept suggests that different linguistic communities can experience reality in distinct ways, as their language shapes their thoughts, experiences, and perceptions. Recent studies have continued to explore this relationship, providing insights into how language not only serves as a communication tool but also frames our cognitive processes. For instance, researchers have examined how speakers of languages with rich color terminology may have enhanced abilities to perceive and categorize colors compared to speakers of languages with fewer terms for colors. This illustrates a potential cognitive impact of language on perception. Furthermore, studies on spatial orientation have shown that speakers of languages that utilize cardinal directions, like North and South, demonstrate superior navigational skills compared to those who rely on egocentric directions, such as left and right. This indicates that language can influence cognitive tasks related to space and orientation. Additionally, recent advancements in neuroimaging have allowed for deeper investigations into how language processing influences thought patterns in the brain. Researchers have discovered that different languages activate various brain regions while processing similar concepts, suggesting that language may mold thought at a neurological level. In conclusion, the relationship between language and thought, as characterized by the Sapir-Whorf hypothesis, continues to garner attention in contemporary studies. Through ongoing research, we learn that language is not merely a means of communication but also a foundational element that shapes our thoughts, perceptions, and interactions with the world around us.

# Chapter One

## 1.1 Introduction

The relationship between language and thought has long been a topic of interest and debate among linguists, psychologists, and philosophers. One of the most influential theories in this area is the Sapir-Whorf hypothesis. This hypothesis, developed by linguists Edward Sapir and Benjamin Whorf in the early 20th century, posits that the language we use shapes the way we think and perceive the world around us( Whorf,1954:80).

According to the Sapir-Whorf(1929), hypothesis, language is not simply a tool for expressing thoughts and ideas, but rather plays a fundamental role in shaping the very structure of our thoughts. This means that the language we speak can influence our cognitive processes, perception, and even behavior. For example, if a language lacks words to express a certain concept or idea, speakers of that language may have difficulty thinking about or understanding that concept.

One aspect of the Sapir-Whorf hypothesis is the idea of linguistic relativity, which suggests that speakers of different languages perceive the world in different ways due to the linguistic structures of their language. For example, Whorf famously studied the Hopi language and argued that their lack of lexical terms for time (such as past, present, and future) influenced the way the Hopi people conceptualized time. Research on the relationship between language and thought has provided support for certain aspects of the Sapir-Whorf hypothesis. For example, studies have demonstrated that speakers of different languages have varying levels of proficiency in cognitive tasks depending on the linguistic structures of their language. For instance, speakers of languages that have a rich future tense (such as English) tend

to think and plan for the future more easily than speakers of languages that lack a future tense(Athanasopoulos,2010:78).

Research has shown that language can impact the way we perceive and categorize the world. For example, a study by Athanasopoulos et al. (2010) found that bilingual individuals perceive colors differently depending on the language they are using at the time. In this study, Greek-English bilinguals were faster and more accurate at categorizing colors when using English, a language that makes more distinctions between shades of blue and green than Greek does. language can also influence our understanding of social constructs and relationships. For example, studies have shown that the language use can shape our attitudes towards gender, race, and other social categories. For instance, Boroditsky et al. (2003) found that speakers of languages with gendered pronouns (such as Spanish and German) tend to view objects with grammatical gender as having corresponding gendered characteristics.

Despite the evidence supporting certain aspects of the Sapir-Whorf hypothesis, it is important to note that the relationship between language and thought is complex and multifaceted. While language can certainly influence the way we think and perceive the world, it is not the sole determinant of cognition. Other factors, such as culture, experience, and individual differences, also play a role in shaping our thoughts and behaviors(Schmidt,2003:41).



## **1.2 Definition of the Sapir-Whorf Hypothesis**

The Sapir-Whorf hypothesis, also known as linguistic relativity, is a theory in linguistics that suggests that the structure of a language can shape or influence the way people perceive and think about the world around them. This hypothesis proposes that language does not just serve as a means of communication, but also plays a crucial role in shaping our thoughts, beliefs, and perceptions of reality. The theory was formulated by linguists Edward Sapir and Benjamin Lee Whorf in the early 20th century, based on their studies of indigenous languages and their cultural contexts. Sapir and Whorf argued that language is not merely a neutral tool for communication, but rather a powerful force that shapes the way we see and interpret the world. According to their hypothesis, different languages embody different ways of thinking, and speakers of different languages perceive and interpret the world in fundamentally different ways(Whorf,1956:70).

The ideas behind the Sapir-Whorf hypothesis is the concept of linguistic determinism, which posits that language determines or constrains the way we think about reality. For example, if a language does not have a specific word or concept for a particular emotion or experience, speakers of that language may find it harder to perceive or understand that emotion or experience. Conversely, languages that have a rich vocabulary for specific concepts may enable speakers to perceive and think about those concepts more readily(Pinker,1999:23).

Another aspect of the Sapir-Whorf hypothesis is linguistic relativity, which suggests that the structure of a language influences the way its speakers think and perceive the world. For example, languages that use different grammatical structures or word orders may lead their speakers to perceive time, space, or causality in different ways. This idea implies that language is not just a tool for communication,

but also a cognitive framework that shapes the way we understand and interpret reality(Lucy,1992:85).

Despite its theoretical appeal, the Sapir-Whorf hypothesis has been a subject of much debate and controversy in the field of linguistics. Some scholars have argued that the hypothesis is too extreme and deterministic, as it suggests that language completely determines our thoughts and perceptions. Others have criticized the hypothesis for oversimplifying the complex relationship between language and cognition, and for neglecting the role of other factors such as culture, environment, and individual differences. While the Sapir-Whorf hypothesis may not provide a complete or definitive explanation of how language influences thought, it offers valuable insights into the complex and dynamic relationship between language and cognition. By studying the ways in which language shapes our perceptions, beliefs, and behavior, researchers can gain a deeper understanding of the role of language in shaping human thought and experience(Boroditsky,2011:40).

### **1.3 Importance of Language in Shaping Thought**

Language is a powerful tool that shapes the way we think, perceive the world, and communicate with others. It is a fundamental aspect of human cognition that plays a crucial role in shaping our thoughts, beliefs, and attitudes. Language not only conveys information but also influences our understanding of reality, social interactions, and cultural identity. One of the key ways in which language shapes thought is through the concept of linguistic relativity, also known as the Sapir-Whorf hypothesis. This idea suggests that the language we speak influences the way we think and perceive the world. For example, different languages have different ways of categorizing and describing colors, which can affect how people perceive and remember colors. Research has shown that speakers of languages with fewer color

terms are less accurate at distinguishing between colors compared to speakers of languages with more color terms (Winawer et al., 2007:65).

Language also influences the way we conceptualize time, space, and relationships. For example, languages like English use tense markers to indicate the time of an event, while other languages like Mandarin Chinese use aspect markers to indicate the completion or continuation of an action. This can result in differences in how speakers of these languages perceive and remember past events (Boroditsky, 2001:54).

Language not only shapes individual cognition but also plays a crucial role in shaping cultural norms and values. Language reflects and reinforces cultural beliefs, practices, and identities. For example, certain languages may have specific words or expressions that capture unique cultural concepts or values that are not easily translatable into other languages. This can lead to differences in cultural norms and worldviews. For instance, the Japanese concept of “wa” emphasizes harmony, cooperation, and social cohesion, which is reflected in the language and cultural practices of Japanese society (Minami, 1992:98).

Language also serves as a vehicle for transmitting cultural knowledge, history, and traditions across generations. Through language, people are able to communicate and preserve cultural heritage, stories, and rituals that help maintain a sense of identity and belonging within a community. Language is central to cultural expression, creativity, and social cohesion, as it enables individuals to connect with others and share their experiences, beliefs, and values (Schiffman, 2006:71).

Language serves as a tool for social mobilization, advocacy, and political activism. Through language, individuals and groups can raise awareness, voice grievances, and mobilize support for social causes, human rights, and political change. Language

has the power to inspire, persuade, and mobilize people to take action and make a difference in society. For example, the civil rights movement in the United States mobilized African American communities through powerful speeches, writings, and songs that galvanized support for racial equality and social justice (King, 1963:89).

## **1.4 Concepts Related to Language and Thought**

Language and thought are two closely intertwined concepts that play a crucial role in human cognition and communication. Language, as a system of symbols, allows us to express our thoughts, emotions, and ideas to others, while thought, as a mental process, enables us to process information, make decisions, and solve problems. Understanding the relationship between language and thought is essential for comprehending how we perceive and interact with the world around us(Whorf,1956:72).

The fundamental concepts related to language and thought is the Sapir-Whorf hypothesis, also known as linguistic relativity. This hypothesis suggests that the language we speak influences how we perceive and think about the world. According to linguists Edward Sapir and Benjamin Lee Whorf, different languages encode different ways of thinking, leading speakers of those languages to perceive and interpret the world in distinct ways. For example, studies have shown that speakers of languages with grammatical gender (such as Spanish or French) tend to assign gendered characteristics to inanimate objects, while speakers of languages without grammatical gender (such as English) do not exhibit this tendency. This suggests that language can shape our cognitive processes and influence our perceptions of reality(Pinker,2007:41).

Another related concept is linguistic determinism, a stronger version of the Sapir-Whorf hypothesis that proposes that language determines our thoughts and

worldview. Proponents of linguistic determinism argue that the structure and vocabulary of a language constrain and shape the thoughts of its speakers, limiting their ability to think outside of linguistic boundaries. While evidence for strong linguistic determinism is limited, studies have shown that language can influence our attention, memory, and reasoning processes. For example, bilingual individuals have been found to exhibit differences in cognitive control and problem-solving strategies depending on the language they are using at the time, suggesting that language can impact how we think and behave(Chomsky,1957:80).

Linguistic relativity and determinism, the concept of linguistic universals also plays a significant role in understanding the relationship between language and thought. Linguistic universals are patterns or structures that are common to all human languages, suggesting that there are innate cognitive mechanisms that underlie language acquisition and processing. For example, all languages have a system of phonemes (distinct sound units), morphemes (meaningful units), and syntax (rules for combining words into sentences), indicating that there are universal principles governing language organization and communication. This suggests that there are cognitive foundations for language that are shared across different cultures and societies, influencing how we perceive and interpret linguistic input(Boroditsky,2011:28).

## **Chapter Two**

### **2.1 Principles of Linguistic Relativity**

The Principles of Linguistic Relativity is a fascinating concept in the field of linguistics that suggests the language one speaks influences how one thinks and perceives the world. This principle is often associated with the Sapir-Whorf Hypothesis, named after linguists Edward Sapir and Benjamin Lee Whorf. According to this hypothesis, the structure and vocabulary of a language can shape the cognitive processes and worldview of its speakers(Sapir,2021:56).

One of the key ideas underlying Linguistic Relativity is that language is not merely a tool for communication but also a framework through which we interpret our experiences. Different languages encapsulate diverse ways of categorizing and understanding reality. For instance, in the Russian language, there are multiple words for what English speakers would refer to simply as "blue." Each term signifies a different shade or nuance of blue, which can lead Russian speakers to be more perceptive and mindful of color variations compared to English speakers. This illustrates how language can affect attention and memory related to color recognition(. Whorf,,1956:37).

Recent studies have provided empirical support for the principles of linguistic relativity. Research conducted by researchers such as Boroditsky and Gaby has shown that speakers of languages with different spatial frameworks perceive space and time differently. For example, speakers of Guugu Yimithirr, an Australian Aboriginal language, use cardinal directions rather than egocentric terms. This linguistic trait leads them to develop an extraordinary sense of direction and spatial awareness, highlighting how language can shape cognitive skills related to navigation and orientation(Boroditsky,2005:42).

The influence of language on thought is not limited to perception of color or space. Studies have examined how language can affect memory and decision-making. In situations where speakers are asked to make decisions based on language, the outcomes can vary significantly depending on whether the task is presented in their native language or a foreign language. For instance, research has shown that people may display different risk-taking behaviors when using a foreign language, suggesting that language may serve as a psychological distance, altering emotional responses and cognitive evaluations(Gaby,2009:80).

Despite the compelling evidence supporting linguistic relativity, some scholars assert that the relationship between language and thought is complex and not absolute. Critics argue that while language can influence thought, it does not determine it. For example, individuals may be capable of understanding concepts for which their language lacks specific terms, indicating that cognition can transcend linguistic boundaries(Holmes,2010:21).

## **2.2 Empirical Evidence Supporting the Hypothesis**

Empirical evidence refers to the information that is acquired through observation and experimentation. It is considered the most reliable form of evidence in the scientific community because it is based on real, tangible data rather than theoretical speculation. In the field of research, hypotheses are proposed to explain a specific phenomenon, and empirical evidence is gathered to either support or disprove these hypotheses(Mook,1983:50).

One of the key reasons why empirical evidence is important in supporting hypotheses is that it allows researchers to draw objective conclusions based on data rather than subjective opinions. When a hypothesis is proposed, researchers design experiments to test this hypothesis and gather data to analyze the results. This data

can then be statistically analyzed to determine the likelihood that the results are due to chance or whether they indeed support the hypothesis. By following this rigorous scientific method, researchers can ensure that their conclusions are based on solid evidence rather than personal biases(Salkind,2010:37).

For example, one of the most famous examples of empirical evidence supporting a hypothesis is the discovery of the Higgs boson particle. The existence of this particle was proposed by theoretical physicists to explain why particles have mass. To prove the existence of the Higgs boson, the Large Hadron Collider (LHC) at CERN was used to conduct high-energy particle collisions. After analyzing the data from these collisions, researchers were able to confirm the existence of the Higgs boson, thus providing empirical evidence to support the hypothesis(Rosenthal,2009:206).

Another reason why empirical evidence is important in supporting hypotheses is that it allows for replication and validation of results. When a hypothesis is supported by empirical evidence, other researchers can replicate the experiment to see if they obtain similar results. If the results are consistent across multiple experiments, it provides further validation for the hypothesis. This process of replication and validation strengthens the confidence in the hypothesis and allows for more definitive conclusions to be drawn(Cohen,2013:73).

Empirical evidence allows for the development of theories that can explain a wide range of phenomena. Theories are broad explanations that are supported by a large body of empirical evidence. For example, the theory of evolution by natural selection is supported by a vast amount of empirical evidence from various scientific fields, including genetics, paleontology, and comparative anatomy. This evidence has allowed scientists to develop a comprehensive theory that explains the diversity of life on Earth and how it has changed over time(Maxwell,2019:40).



## **2.3 Role of Culture in Language-Thought Relationship**

The relationship between culture and language is a profound and intricate one, deeply embedded in the ways individuals express thoughts, beliefs, and behaviors. Language serves not merely as a tool for communication but as a vessel that carries cultural meanings, norms, and values. Culture influences language in numerous ways (Whorf, 2021:89).

Each language is tailored to reflect the cultural realities of its speakers. For instance, the Inuit people have many words for snow, each describing various conditions and types, highlighting the importance of snow in their environment and culture. This is a classic example of how language can give insight into cultural values and necessities. Furthermore, idiomatic expressions and proverbs can often encapsulate unique aspects of a culture, emphasizing values such as community, respect for nature, or familial ties (Sapir, 2019:62).

Moreover, language shapes how individuals think and interpret the world around them. The Sapir-Whorf hypothesis, often referenced in discussions around language and thought, posits that the structure of a language can influence its speakers' cognition and worldview. For example, speakers of languages that do not have specific terms for certain colors may not recognize those colors as distinctly as speakers of languages that do. This illustrates how language can shape perception, categorization, and even memory (Liu, 2020:54).

Researchers have expanded on these ideas by examining how globalization impacts language and cultural expressions. Social media and the internet facilitate the spread of languages and cultural interactions, leading to a phenomenon known as code-switching, where individuals alternate between languages within a conversation.

This not only reflects the blending of cultures but also illustrates how modern communication evolves in a multicultural context(Auer,2022:14).

Additionally, the concept of cultural identity is closely tied to language. Bilingualism and multilingualism have become more common due to migration and increased international interaction. As individuals navigate multiple languages, they often shift their identity to adapt to different cultural contexts, further illustrating the interplay between language, thought, and culture(Edwards,2023:3075).

## **Conclusion**

In conclusion, the study on the relationship between language and thought based on the Sapir-Whorf hypothesis has provided valuable insights into how language shapes our perceptions and cognitive processes. The hypothesis suggests that the structure and vocabulary of our language influence our worldview and the way we think about the world around us. This theory has been subject to much debate and criticism, with some researchers arguing that language may not completely determine our thoughts but rather influence them to some extent. Nonetheless, studies have shown that speakers of different languages perceive and categorize the world in different ways, highlighting the powerful impact that language can have on our cognition. By understanding the complex interplay between language and thought, we can gain a deeper appreciation for the diversity of human experience and the importance of language in shaping our understanding of the world.

## References

Auer, P. (2022). *Code-Switching in Conversation: Language, Interaction, and Identity*. Routledge.

Boroditsky, L. (2001). Does language shape thought? Mandarin and English speakers' conceptions of time. *Cognitive Psychology*, 43(1), 1-22.

Boroditsky, L. (2011). How language shapes thought. *Scientific American*, 302(1), 62-65.

Boroditsky, L. (2011). How language shapes thought. *Scientific American*, 304(2), 62-65.

Chomsky, N. (1957). *Syntactic structures*. Mouton.

Cohen, B. C. (2013). Quantitative research in psychology: The major issues. In *Psychology for the Classroom: Constructivism and Social Learning* (pp. 34-47). Routledge.

Edwards, J. (2023). *Language and Identity*. In *The Cambridge Handbook of Language Policy*. Cambridge University Press.

Gaby, A. (2009). Cognitive consequences of a language without a future tense. *Proceedings of the National Academy of Sciences*, 106(1), 91-96.

Holmes, J. R. (2010). Language and thought: The role of linguistic cues in decision making. *Journal of Behavioral Decision Making*, 23(4), 493-513.

King, M. L. (1963). *I have a dream*. Washington, DC: US Department of the Interior, National Park Service, Martin Luther King, Jr. National Historic Site.

Liu, H. (2020). Language and Cultural Identity in Multilingual Communities. *Journal of Sociolinguistics*, 25(3), 329-347.

Lucy, J. A. (1992). *Language diversity and thought: A reformulation of the linguistic relativity hypothesis* (Vol. 14). Cambridge University Press.

Maxwell, S. E., Delaney, H. D., & Kelley, K. (2018). *Designing experiments and analyzing data: A model comparison perspective*. Routledge.

Minami, M. (1992). Linguistic politeness and speaker's impression of a particular speech act. *Journal of Pragmatics*, 18(4), 303-317.

Mook, D. G. (1983). In defense of external invalidity. *American Psychologist*, 38(4), 379-387.

Pinker, S. (1999). *Words and rules: the ingredients of language*. Basic Books.

Pinker, S. (2007). *The stuff of thought: Language as a window into human nature*. Penguin.

Rosenthal, R., & Rosnow, R. L. (2009). *Artifacts in behavioral research: Robert Rosenthal and Ralph L. Rosnow's classic books*. Oxford University Press.

Salkind, N. J. (2010). *Encyclopedia of research design* (Vol. 1). Sage Publications.

Sapir, E. (1921). *Language: An Introduction to the Study of Speech*. Harcourt, Brace.

Sapir, E. (2019). *Language and Culture*. In *The Handbook of Social Psychology*. Cambridge University Press.

Schiffman, H. (2006). Language and identity in the Israel-Palestine conflict. In *Language, identity and conflict* (pp. 125-138). Intellect Books.

Whorf, B. L. (1956). *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*. MIT Press.

Whorf, B. L. (2021). The Relation of Habitual Thought and Behavior to Language. In Language, Thought, and Reality. MIT Press.

Winawer, J., Witthoft, N., Frank, M. C., Wu, L., Wade, A. R., & Boroditsky, L. (2007). Russian blues reveal effects of language on color discrimination. *Proceedings of the National Academy of Sciences*, 104(19), 7780-7785.