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RESEARCH PAPER

Categorical Perception of Colours and the Temporal Progressive (Order) in Native Punjabi Male and Female (Educated and Uneducated) Speakers of Gujranwala

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ABSTRACT

This study explores the impact of language on temporal progression, color perception, and categorization in L1 Punjabi speakers, focusing on gender and education level differences. The goal of the study is to investigate whether language shapes our thoughts. 60 L1 speakers were selected by using simple random sampling method. Data from 60 L1 speakers was taken by giving them some pictures. The researcher found that educated male speakers were less proficient at naming colors compared to uneducated males, while female speakers were better at color perception and naming than educated females. The study concludes that the L1 language greatly influences how we perceive and categorize colors and temporal progression, and that gender differences also play a role in this phenomenon. The study suggests that language shapes our worldview and gender influences perception of the same concept, indicating the importance of considering language and gender in communication.

| **KEYWORDS** | Colour Perception, Dialects, Sapir Whorf Hypothesis, Temporal Direction |

Introduction

Language plays an important role in humans' life because language is an identity, language is a way to construct the reality, language shapes thought and worldview, and without language we cannot express even a single feeling and thought. The present study is influenced by the claim of Sapir and Whorf hypothesis, language and worldview. Sapir and Whorf made a claim that the worldview of a person is influenced by the language (Sapir, 1921) and (Whorf, 1956). It is understood that if language take part in cognitive process of a speaker than it must shapes the thoughts. Obviously language strongly influences our thought. Language creates major difference in nature of nations but the present study explores, language used by the educated and uneducated male and female native Punjabi speakers, and how native speakers observe happening around them. They acquire different languages and how these languages act on their world view. Major concern of present study is that how native speakers of Punjabi perceive the colours and how they are influenced by the English language. English language is Pakistan's official language. Mostly Pakistani people acquire English language as a second language. Are they influenced by that language? Is it changed their worldview? Or what extent they relate to English culture. Are they having same culture, beliefs, religion, customs, and social system on the behalf of language origin (Hunt & Agnoli, 1991; Lucy, 1992; Athanasopoulos, 2009).

The claim of Sapir Whorf hypothesis has been discussed many researchers, for instance, Chomsky (2009 & 2011) on the main question, relationship between language

and thought, language and worldview, language and culture do we "think in language" and does "language shapes our thoughts" (Casasanto, 2008). Perception is a classical debate in cognitive science that have been discussed in previous studies and these studies have discussed that different speakers of different languages have different views about same thing. What is the view of Punjabi speakers about colours and direction as compare to Chinese and English language speakers? What is the relation between language and its culture? How does language influence the people of different languages? Sequence and order is also discussed by the (Bano, et al., 2014), and colours perception is discussed by (Nosheen, et al., 2014), both are the student of GIFT University. But the voyage of the present study starts with a new direction, it discusses the problem of educated and uneducated genders (Male and female) that how their perception is developed on the basis of L1, the data has been collected by arranging card and by naming the colours chart. Everyone has personal dialect and personal perspective about different things, so it is quite new topic especially in Gujranwala, Pakistan.

Literature Review

The Sapir-Whorf hypothesis, which posits that language shapes thought, serves as the foundation for many researchers' investigations into how language influences our cognition. One such inquiry by Feldmann et al. (2003) centers on the impact of grammatical gender differences across languages on our thought processes. Through data collection from various individuals, they conclude that grammatical gender can affect our thinking. For example, in English, gender is identified through the use of "he" and "she," whereas in Punjabi, the same word "wo" is used for both genders, and gender is identified through the use of "khata" and "khati."

Logunov, et al., (2021) have also suggested that language shapes our thought processes, and that the language we speak affects our worldview. She conducted a comparison between the English language and the Kuuk Thayorre people to demonstrate this concept, noting that the two groups think differently about time and space. Similarly, the Popmpurraw people exhibit a similar phenomenon. Whereas English speakers use "left" and "right" to describe direction, the Gaby (2018) people use "east," "west," "south," and "north" to describe spatial orientation. Boroditsky (2011) shared her research with a friend who added that Hebrew speakers arrange things from right to left, reflecting the right-to-left writing system of the Hebrew language. This highlights the fact that every language has a unique writing system, which can influence our thoughts. For instance, English speakers arrange things from left to right because of the left-to-right writing style of the English language. Similarly, the Gaby (2018), people arranged a photo based on east, west, south, and north, as their language uses these directional markers, whereas English speakers would use left and right.

When we talk about the colour perception, Regire, Kay and Khetarpal, (2007) argue in such a way that colours naming is an optimal system some of the linguistic answered that language do not affect our colour perception but some of the linguistic agreed with them. He proved the half of our perception is influenced by our colours perception because language defines colours according to culture and religion. If a language have no colour category how the defined a thing that have such a colour. After Regire, Kay and Khetarpal, (2009), Panos Athanasopoulos studied on colours perception, argues "cognitive representation of colours in bilingual". Greeks was subject of the study, case of Greeks blue by observing the way of bilingual's perception about colours and distinguishing in different colours on the basis of their availability in the language. Second language colours also effects the colour perception of the speakers. And this shows that for colours perception stud Kay, & Regier, (2006), studied colour

categorization in 2006 they finalized that Sapir Whorf hypothesis is half proved right and half is not proved. They said that Sapir Whorf Hypothesis is that we filtered the world thorough our language that is used by the speaker as a native language.

Hypotheses

1. Punjabi speakers from Gujranwala region will have a different perception of colours compared to English Language Learners and Native Speakers.

2. The influence of other languages on Punjabi as L1 may impact colour perception and directional usage.

3. The native language of Punjabi speakers, specifically the Majha dialect, may affect their perception of temporal order and direction usage.

4. The perception of colours among Punjabi speakers in Gujranwala region is influenced by their cultural conventions.

Material and Methods

The methodology used for this study involved purposive sampling to select uneducated participants from a village in Gujranwala, Pakistan. Face-to-face interviews were conducted with 30 participants one by one, and data collection tools such as a colour chart and glass fragmented pictures were used to assess the participants' ability to name colour shades in Punjabi and arrange glass on a board free-handedly. The participants were fluent in Punjabi but not familiar with English language words, and they were between the ages of 20 to 60 years old. All participants were volunteers and were informed that their name and address would not be mentioned with their data, and the researcher took measures to ensure the confidentiality and privacy of participant data. The research question was focused on the cognitive and behavioural process involved in naming colour shades and arranging glass on the board among uneducated Punjabi-speaking participants.

The independent variables in this study were the colour chart and glass fragmented pictures, while the dependent variables were the naming of colour shades in Punjabi and the arrangement of glass on the board. Data analysis involved using descriptive statistics to examine the frequency and patterns of colour naming and glass arrangement. Behavioural observations were also recorded and analysed. The research design was a mixed-method approach, combining both qualitative and quantitative data collection and analysis techniques. The interviews provided qualitative data, while the use of a colour chart and glass fragmented pictures provided quantitative data. However, the study had limitations, including a small sample size, the use of only one location for sampling, and the limited generalizability of the findings to other populations. Overall, the study provides insights into the cognitive and behavioural processes involved in colour naming and glass arrangement among uneducated Punjabi-speaking individuals.

Researcher has used some material and tools to collect the data, to answer the research questions. The data has been collected from Punjabi native speaker of Punjab (Gujranwala, Pakistan). Educated speaker are selected from the GIFT universities, Gujranwala, Pakistan. The material which is used to collect the data are colours chart, that chart consists of 20 colours and each color have 16 shades, the total shades are 320 that are clearly print on the colour chart. The chard is presented to the participant and purpose of the research is told to them in detail. Now they start to name the shade in their language.
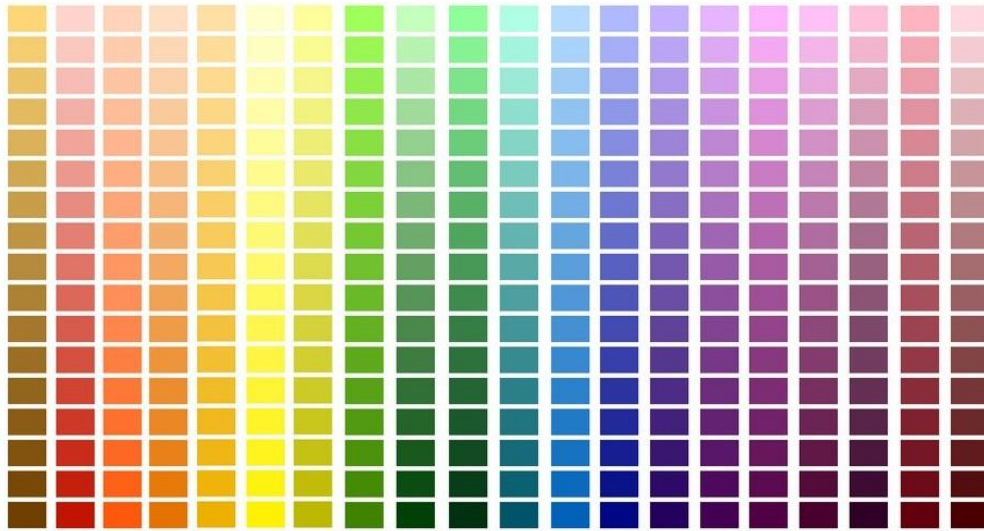
Some temporal fragments of glass picture (Filled, Half Filled and empty Glass) were presented to the participant as a tool of data collection to answer the temporal order of objects. Three glasses were arranged by the speaker on front board (as table). Participants were left free handed to arrange the glass picture according to their routine for pure and accurate data.
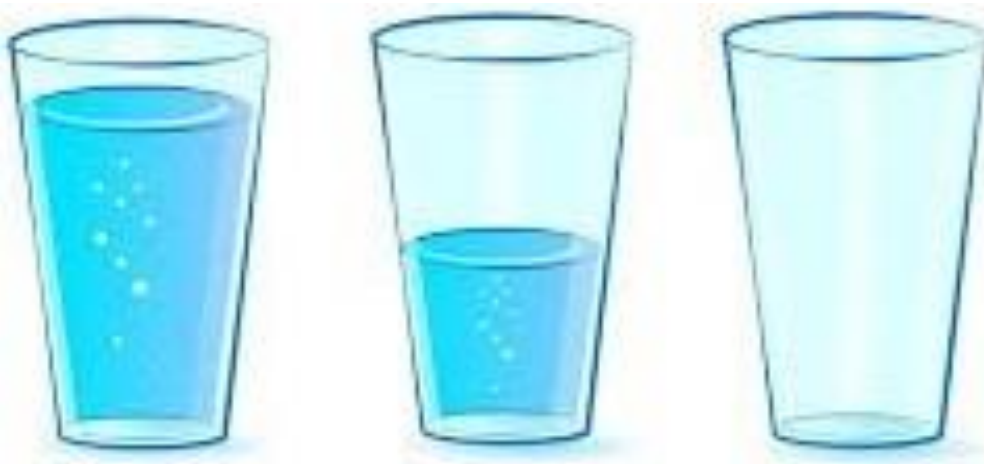

Results and Discussions

The role of language in shaping our worldview and identity cannot be overstated. While all languages are equal in terms of linguistic value, some languages have richer vocabularies than others. In the present study, the focus is on comparing the English and Punjabi languages. One notable difference between the two languages is their vocabulary for maternal and paternal relations. In English, the terms "aunt" and "uncle" are used to describe all such relations. However, Punjabi has a vast and diverse vocabulary for these relationships, including "phupho" and "phupha," "chacha" and "chahcu," "mamu" and "mumani," "khala" and "khalu," and so on.

This highlights how language can reflect cultural values and practices. In Punjabi culture, familial relationships are highly valued and regarded, and thus the language has a rich vocabulary to express and distinguish different relationships. On the other hand, in English culture, these relationships may not be as emphasized, resulting in a more limited vocabulary for them. Language plays a crucial role in shaping our cultural

identity and how we express ourselves. The comparison between English and Punjabi vocabulary for familial relations highlights the importance of language in reflecting cultural values and practices. Language has a significant impact on how we perceive and interpret the world around us. For instance, American English speakers tend to drop the "r" sound while British English speakers pronounce it. Additionally, words like "colours" and "colors" are pronounced differently, with "schedule" being pronounced as "skejul" in American English and "shedyul" in British English. These differences in pronunciation illustrate how language shapes our thoughts and perceptions.

Moreover, different languages have their unique sounds, and some individuals may struggle to produce specific sounds from other languages. For instance, Arabians may not be able to produce the "p" and "t" sounds, which limits their ability to express certain emotions and thoughts in other languages. On the other hand, multilingual and bilingual speakers tend to have more extensive vocabularies and a broader worldview than monolingual speakers. In Punjabi culture, colours play an essential role, and their language has a vast and diverse vocabulary to describe them, earning them the title "language of colours." In the present study, 320 shades were used to define the colours named in the Punjabi language. It is important to note that the naming of colours varies from language to language, and in 1991, Berlin and Kay studied the categorization of colours in 20 different languages, illustrating how language shapes our perceptions and understanding of the world.
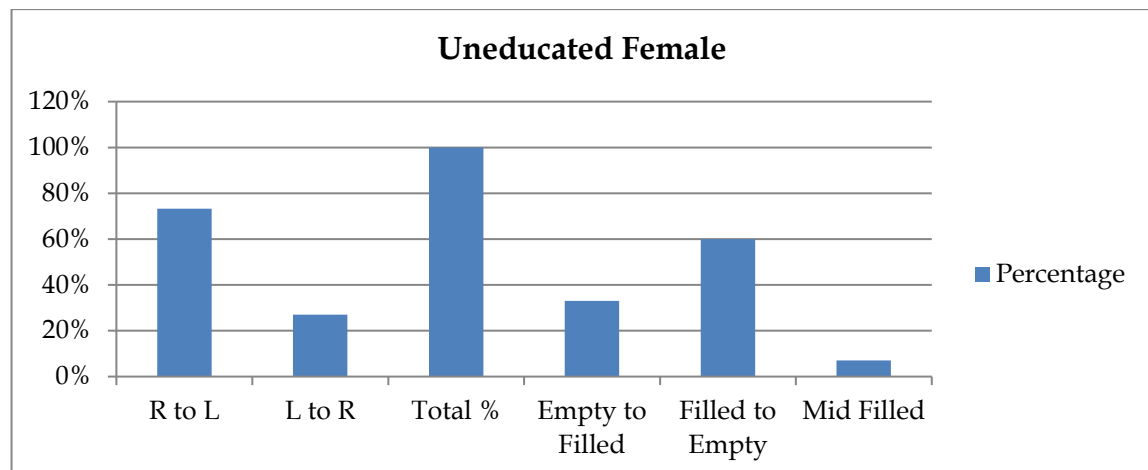
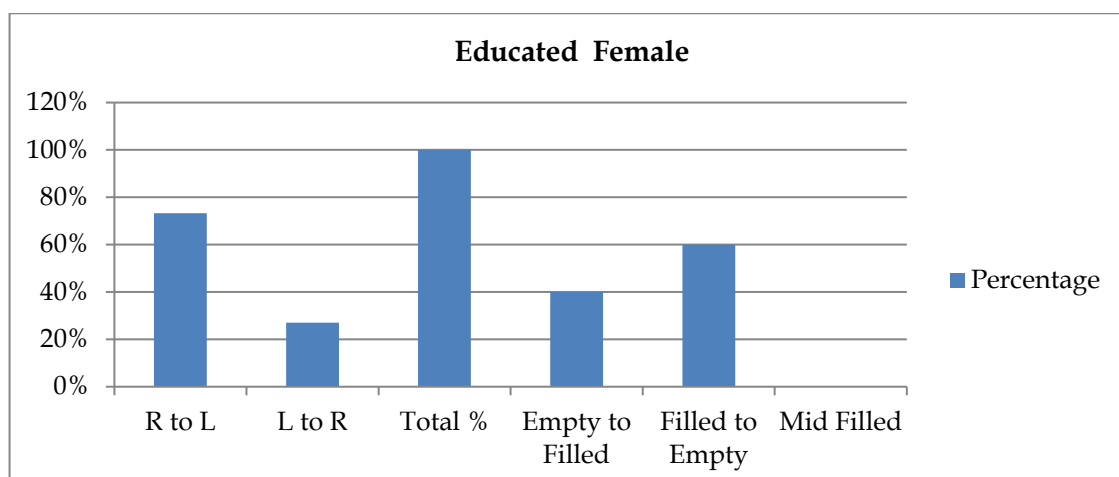Graph 1. Arrangement of Glasses by Uneducated Females

The statement implies that the data presented in a graph demonstrates the relationship between language and cognitive patterns. Specifically, it highlights the influence of the Punjabi language on the thinking patterns of uneducated females who participated in the study. The data suggests that a large majority of these participants arranged the glass from right to left, which is consistent with the writing direction of Punjabi. Moreover, the statement further elaborates on the findings of the study by mentioning that 60% of the participants arranged the glass from filled to empty, while the remaining 40% arranged it from empty to filled. This information indicates that participants' cognitive patterns are also influenced by their perceptions and interpretations of the world around them. The majority of participants may have arranged the glass from filled to empty because it is a natural progression from full to empty, while the remaining participants may have arranged it from empty to full because it is a reversal of that progression. In summary, the statement highlights the interplay between language, culture, and cognition, and how they can influence each other. The data presented in the graph provides evidence for this relationship and suggests that

cognitive patterns can be shaped by a variety of factors, including language and cultural background.
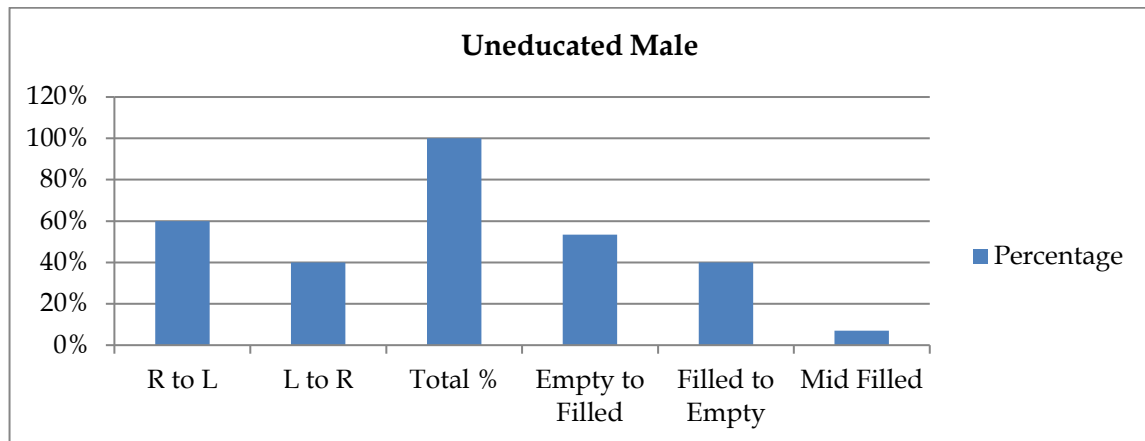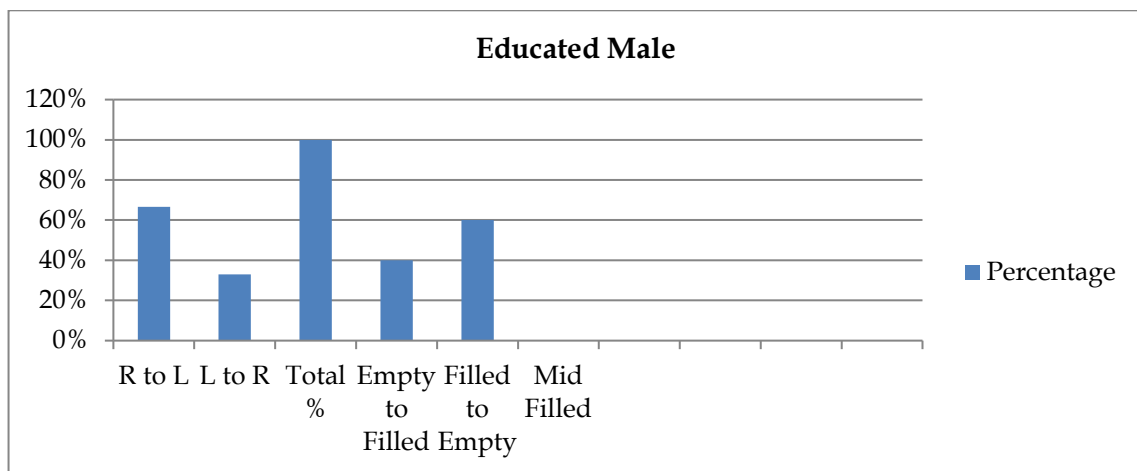

Graph 2. Arrangement of Glasses by Uneducated Males

The given statement describes the behavioral pattern of male speakers who lack formal education while arranging objects and glasses. According to the statement, a majority of 60% of male speakers without formal education arranged objects from right to left, which indicates a preference for a right-to-left reading and writing pattern. In contrast, the remaining 40% of male speakers arranged the objects from left to right, which suggests a possible influence of cultural or regional factors. This variation in the arrangement pattern highlights the impact of diversity in cultural norms and individual preferences. Furthermore, when it comes to arranging glasses, the statement reveals that 53% of the male speakers arranged them from empty to filled, which could be a reflection of the common practice of filling up glasses before consuming the beverage. However, 40% of the speakers arranged the glasses from filled to empty, indicating a contrasting perspective towards the process of consumption. Interestingly, the statement also highlights a unique behavior exhibited by 7% of male speakers, who placed the filled glass in the center, which distinguishes them from the rest. This particular difference in the arrangement pattern could signify a personal preference, a distinct cultural tradition, or a deliberate attempt to deviate from the norm. The statement provides valuable insights into the behavior and preferences of male speakers who lack formal education while arranging objects and glasses, highlighting the diversity and individuality that exists within a group.

Graph 3. Arrangement of Glasses by Educated Females

The act of arranging the glasses indicates a level of attention to detail and organization, which can be attributed to the knowledgeable woman who carried out this task. Interestingly, the woman's arrangement of the glasses was not entirely uniform. Out of the total number of glasses, 77% were arranged from left to right, suggesting that this direction was the woman's preferred method of arrangement. On the other hand, 23% of the glasses were arranged from right to left, indicating that there may have been some specific reason or preference for this particular arrangement. Moreover, the woman's approach to arranging the glasses extended beyond just their orientation. She also took into account their content, with 40% of the glasses arranged from empty to filled, and 60% arranged from filled to empty. This deliberate arrangement of glasses based on their contents could potentially serve practical purposes, such as making it easier to identify which glasses are clean and which ones need to be washed. Overall, the knowledgeable woman's attention to detail and organization in arranging the glasses is impressive and reflects a keen eye for efficiency and practicality.

Graph 4. Arrangement of Glasses by Educated Males

The statement suggests that an experiment was conducted involving a group of educated men. They were given a set of glasses to arrange in a specific order. The experiment aimed to observe the preferences and tendencies of the participants in arranging objects. As per the statement, it was observed that the majority of the participants, precisely 63%, arranged the glasses from right to left. This indicates that the participants might have a tendency to arrange objects in a particular direction, or it could be a personal preference. On the other hand, 37% of the participants arranged the glasses from left to right, which suggests that this group of people might have a different preference or tendency. It could also be possible that they were left-handed individuals.

Furthermore, the statement also reveals that 40% of the participants arranged the glasses from empty to filled, while 60% arranged them from filled to empty. This observation indicates that the majority of the participants preferred to arrange objects based on their level of fullness. In conclusion, the experiment provided interesting insights into the preferences and tendencies of educated men in arranging objects. It is worth noting that these observations may not be generalizable to the entire population, as individual differences may play a significant role in how people arrange objects.

Table 1
Number of Colours Named by Uneducated Females

Sr. No.	Gender	Colour Identification	Total No. of Asked Colours	Colours They Named	Colours They couldn't Name	Colours They Named %
1	Female	Yes	98	17	81	17%

2	Female	Yes	98	24	74	24%
3	Female	Yes	98	22	76	22%
4	Female	Yes	98	22	76	22%
5	Female	Yes	98	27	71	28%
6	Female	Yes	98	22	76	22%
7	Female	Yes	98	30	68	31%
8	Female	Yes	98	24	74	24%
9	Female	Yes	98	22	76	22%
10	Female	Yes	98	35	63	36%
11	Female	Yes	98	25	73	26%
12	Female	Yes	98	23	75	23%
13	Female	Yes	98	22	76	22%
14	Female	Yes	98	27	71	28%
15	Female	Yes	98	25	73	26%

Uneducated female named the colours in different ratios, such as 17% to 36%. The behavior toward native language is too much important because the native language is the base of thoughts and worldview. In this way in Pakistan, especially in Punjab, people are using other's language instead of native language, Punjabi. Researchers think they are not aware about the importance of native language. They do not know if the native language will die, they cannot survive and cannot represent themselves among the web of thousands language.

Around all over the world, almost 6909 languages are spoken and according to Ethnologies language of the world, 7097 languages exist. Different people of different regions influenced by the other languages and it is a quiet natural phenomenon, no one do it intentionally. Basically they learn another language to communicate with them to get benefits but later they influenced by their advancement and they start borrowing words from their language. Normally, different language speakers borrow words from other languages because they have no words for some objects because these objects are being introduced by the other cultures or they have difficult word for those objects. But this type of borrowing cannot change the worldview of the people.

In Pakistan, many languages are spoken by different people who are living in different regions of Pakistan. Pashto, Punjabi, Sindhi, Balochi and Urdu are major languages of Pakistan, there are many dialects of a language that are being spoken in different. Punjabi language also has many dialects such as Hindko, Majhi, Potohari, Gujrati, Sialkoti dialect and etc. almost all these dialects are belong to Indo-Iranian family. But English is also play an important role in Pakistan because it is the official language of Pakistan and it is fact that Pakistan was a colony of Britishers and Punjabi is the major language of Punjab that is also influenced by the English.

Table 2
Number of Colours Named by Uneducated Males

Sr. No.	Gender	Colour Identification	Total No. of Asked Colours	Colours They Named	Colours They couldn't Name	Colours They Named %
1	Male	Yes	98	11	87	11%
2	Male	Yes	98	10	88	10%
3	Male	Yes	98	10	88	10%
4	Male	Yes	98	14	84	14%
5	Male	Yes	98	16	82	16%
6	Male	Yes	98	11	87	11%
7	Male	Yes	98	11	87	11%
8	Male	Yes	98	10	88	10%
9	Male	Yes	98	10	88	10%

10	Male	Yes	98	12	86	12%
11	Male	Yes	98	12	86	12%
12	Male	Yes	98	12	86	12%
13	Male	Yes	98	15	83	15%
14	Male	Yes	98	12	86	12%
15	Male	Yes	98	12	86	12%

10% to 16% colours are named by the uneducated male speakes. As the result of Prompuraaw's people language can easily defined north, south, east and west without hesitation and delay, although they are not educated. He said that language is a way to shape the thought. He proved his argument by the example of Prompuraaw's 5 year girl can define direction by calling North, East, West, and South. While an educated person of Princeton as well as Stanford University's gold medalist cannot define the directions easily by calling North, East, West and South. But they can define better right, left, front and back. This example shows that a language shapes thought of speakers as well their worldview. In short we can say that a 5 year old girl of one culture can defined directions or do a thing with ease but the other culture's scholars cannot do, because they have different worldview about the things. It is as similar to that a specialist doctor can operate operation but he cannot change the ROM of a computer. When a person did not use a thing how he/she can operate that? But language has a broad perspective than this example. Language is an identity as well as a worldview.

From hundreds of years, linguists especially psycho-linguists want to explore the relation between language and world-view, there are many questions about language and world-view but in 20th century, linguists are paying special attention to solve this problem. Benjamin Lee Whorf was first linguist who studied Hopi Language (Whorf,. 1956.), a native language of America, which is spoken in Northeastern Arizona. He claimed that different speakers of different languages have different views to see the world. His hypothesis was based on Hopi and English language speakers. Almost in the world there are more than 7000 (seven thousand) languages. To learn and talk about all the languages as a reference is not possible.

Language and mind was subjected by the (Gumpers and Levinson). Pragmatism is based by the Dewey, who thinks that language is a tool of thinking. But as researcher is a native speaker of Punjabi language; Majha dialect, present research is also concerned with same dialect of language. "Pakistan has a complex linguistic demography". Almost all over the Pakistan people of different languages are influenced by the English language but they do not know this fact, can they express their feelings, emotion and thoughts etc. through English language exactly as they can share through their native language? The question is answered by the Whorf Hypothesis. They cannot do that because language shapes thought and we cannot imitate an incident or story of one culture through another language in different culture. Culture is defined as "the customary beliefs, social forms, and material traits of a racial, religious, or social group"

Table 3
Number of Colours Named by Educated Females

Sr. No.	Gender	Colour Identification	Total No. of Asked Colours	Colours They Named	Colours They couldn't Name	Colours They Named %
1	Female	Yes	98	11	87	11%
2	Female	Yes	98	12	86	12%
3	Female	Yes	98	11	87	11%

4	Female	Yes	98	14	84	14%
5	Female	Yes	98	17	81	17%
6	Female	Yes	98	11	87	11%
7	Female	Yes	98	12	86	12%
8	Female	Yes	98	13	85	13%
9	Female	Yes	98	11	87	11%
10	Female	Yes	98	15	83	15%
11	Female	Yes	98	11	87	11%
12	Female	Yes	98	12	86	12%
13	Female	Yes	98	12	86	12%
14	Female	Yes	98	12	86	12%
15	Female	Yes	98	13	85	13%

Educated females named these colours in 11% to 17%. Dr. Nadia Anwar discusses in the TNS (The News on Sunday), Pakistan has a complex linguistic demography. Language is something that can be used for many different purpose and to achieve different goals. In the interview to Spanish linguist Dr. Maria Isabel Madonado Gracia said that Pakistan has facing a problem that Pakistan has 72 languages and no one can even think about all the languages. Some of languages are near to die or struggling to survive. The literacy rate of Siraiki's literature is very low and they are struggling for a separate province. As we have Urdu as a national language but the speaker of Urdu is very less as compare to Punjabi, In Urdu there is no linguistic work in Pakistan. Official language of Pakistan is English but almost more than fifty percent people do not understand English and it is dilemma of Pakistan.

Punjabi is the major language of Punjab and Pakistan almost 48 percent people in Pakistan speak it as L1. But it has no prestige in Punjab as Sindhi in Sindh. This attitude towards the language is so dangerous for our identity because we have discussed that language is only way to express our thoughts, if we have no native language we have no identity in the world. A learned language is a language that can fulfill our needs but it cannot develop our worldview. Every language is a reflection of a specific culture. We cannot generalize a language to all the cultures.

Table 4
Number of Colours Named by Educated Females

Sr. No.	Gender	Colour Identification	Total No. of Asked Colours	Colours They Named	Colours They couldn't Name	Colours They Named %
1	Male	Yes	98	12	86	12%
2	Male	Yes	98	11	87	11%
3	Male	Yes	98	12	86	12%
4	Male	Yes	98	11	87	11%
5	Male	Yes	98	10	88	10%
6	Male	Yes	98	14	84	14%
7	Male	Yes	98	11	87	11%
8	Male	Yes	98	12	86	12%
9	Male	Yes	98	11	87	11%
10	Male	Yes	98	10	88	10%
11	Male	Yes	98	12	86	12%
12	Male	Yes	98	13	85	13%
13	Male	Yes	98	14	84	14%
14	Male	Yes	98	11	87	11%
15	Male	Yes	98	11	87	11%

Educated male, L1, speaker named 10% to 14%. The participants in the study encoded the basic colors differently, such as red being represented as both "lal" and "surkh," yellow being represented as both "peela" and "khatta," green as "hara," blue as "neela," purple as "jamni," and brown as "bora." Additionally, different shades were represented using terms like "halka" (light), "madham" (medium), "tez" (dark), and "ghora" (very dark). Interestingly, many colors were represented metaphorically by referencing natural things, particularly fruits. In comparison to Punjabi speakers, English language has a more diverse vocabulary when it comes to colors. For instance, English has numerous shades of pink such as baby pink, rose pink, tea pink, salmon pink, brink pink, coral pink, ultra pink, and deep pink, whereas in Punjabi language, regardless of whether the speaker is educated or uneducated, male or female, they simply use the term Gulabi to represent the color pink, and its different shades are described using terms like Halka, Madham, Tez, and Ghara or Ghura.

Data collection is a crucial aspect of research, and it is interesting to note that people use the temporal order according to their native language and are influenced by the religious script of writing and morals. This observation could have significant implications for understanding how people perceive and interact with the world around them. One interesting finding from the data collection is that some people arrange objects, such as glasses, according to their language. This means that they place objects in a particular order based on the grammatical rules and structure of their native language. For example, in some languages, the verb comes at the end of the sentence, while in others, it comes at the beginning or in the middle. This can influence how people order and arrange objects.

Another factor that influences how people arrange objects is their religious beliefs. For example, some participants explained that they arrange glasses starting from the right hand because Islam teaches them to start work from the right hand. This shows how religious beliefs and teachings can influence people's behavior, even in seemingly mundane tasks such as arranging glasses. The value of an object can also influence how people arrange it. For example, some participants set filled glasses first because they believe that water is more valuable than an empty glass. This demonstrates how people's cultural values and beliefs can influence their actions.

The data suggest that people arrange objects based on a complex interplay of language, culture, and beliefs. While some may follow established rules and customs, others may prioritize certain values or beliefs in their arrangement. Understanding these factors can help researchers gain insights into how people perceive and interact with the world around them, and can inform the development of new theories and models of human behavior.

Findings

The study's finding that a speaker's native language shapes their perception of colors is significant. The study was conducted on Punjabi speakers, both educated and uneducated, and found that they use metaphors to describe different shades of colors. The study also found that Punjabi speakers are influenced by English, their L2 language, to some extent. While the study provided valuable insights, it would be interesting to extend it further by collecting data from transgender Punjabi speakers and Punjabi speakers who speak other dialects of the language. This could potentially reveal whether there are variations in color perception and naming across different communities.

Moreover, the study's broader implications about how language shapes thought can be further explored in different ways. For instance, researchers could test whether the use of different objects with the same colors impacts how people perceive and name them. Additionally, the use of directionality in color perception could also be investigated to understand the temporal aspect of color perception. The study's findings highlight the importance of language in shaping how we perceive and name colors. Further research could help uncover more about the intricacies of color perception across cultures and dialects.

Conclusion

The color chart displays numerous colors with varying shades, some of which do not have unique names. When one color is blended with another, a new shade emerges, and this process results in the creation of many shades over time. Although our language cannot assign specific names to every possible shade, speakers associate them with familiar objects, both living and non-living. Punjabi speakers use metaphors to describe new colors and shades, and they classify colors into different spectrums, such as reddish-orange, which is a combination of two colors but does not denote a precise shade.

In conclusion, some languages have a limited number of basic colors and use them to name other colors by adding dark and light shades. This is the case with the language spoken by the Danni people in Guinea, West Africa, where blue and green represent the dark shades and red and yellow represent the light shades. However, research has shown that speakers of other languages, such as Punjabi and English, are able to perceive and name a wider range of colors. Our perception and categorization of colors are influenced by the language we speak, as we group colors based on linguistic categories such as light and dark, shiny and dull. Additionally, the interaction between languages is influenced by geographical and political boundaries.

Recommendations

Based on the understanding that the naming of colors is largely influenced by language, there are a few recommendations to consider. Firstly, it may be useful to conduct further research on how different languages categorize and name colors. This can help us understand the limitations and nuances of color perception across languages. Secondly, it may be helpful to promote cross-cultural exchange and awareness of different linguistic categories for colors. This can broaden our understanding of how different cultures perceive and categorize colors. Thirdly, for languages that lack specific names for certain shades of colors, it may be useful to create new terms or adopt terms from other languages to better describe them. This can help avoid the use of vague or imprecise metaphors, which can be confusing or misleading. By recognizing the influence of language on color perception, we can work towards creating a more nuanced and accurate understanding of how different cultures perceive and name colors.

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