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# **Does Language Affect Perception and Memory? -Comparative study of Japanese and Chinese Speakers under the condition of using language or not-**

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Does what we say influence our event perception and memory? Do native speakers in different languages have different perceptions of the world? Despite manipulating different languages, do we share universal cognitive ability? Humans acquire language through living environment and experience, and at the same time they learn verbal cognitive strategies and habitual thinking unconsciously.

In this study, we investigate the influence of language on human event perception and memory from the viewpoint of linguistic relativity. Linguistic relativity, supposing language influences our cognition/thought, is studied on how language affects cognition by comparing cognition of different language speakers. There is a dispute about if the influence of language is pervasive or limited. It is shown that language affects event perception and memory when language is potentially used in coding events, there is controversy about the existence of this influence from language when language no used in the description or verbal thinking. In this research, to clarify if the influence of language is pervasive or limited, we focus on whether

event perception and memory are still affected by language when language is blocked. We compared native speakers of two languages that use different means of expressing motion (Chinese and Japanese) to investigate whether this cross-linguistic difference affects people's perception and memory when language is blocked. We recorded participant's eye movements as they watch animated motion events in the linguistic task and non-linguistic (language blocked) task, and investigated the accuracy of memory in the non-linguistic (language blocked) task.

The result indicates that Japanese speakers with expression preference tend to fixate on the motion event's instrument area in the linguistic task, and there is no fixation preference in the non-linguistic task. Also, there is a significant difference between the linguistic task and non-linguistic task in Japanese speakers. However, Chinese speakers with no expression preference tend to fixate on the motion event's instrument area both in the linguistic task and non-linguistic task. However, there is no significant difference between the linguistic task and non-linguistic task in Chinese speakers. Moreover, there is no significant difference between Chinese speakers and Japanese speakers in the memory test under the non-linguistic condition. Together, our finds indicated that cognitive preferences eliminated by blocking the language used in event perceiving and memorizing, it suggested the influence of language is limited, only when using language for cognitive behavior.