



Activation of Behavioral Trait Inferences: Impression Formation in the Reading Process



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Introduction

When reading text it is likely that readers make inferences about main characters. For example, if you read a passage about a woman who is described as someone who enjoys being very social with others and is outgoing, it is likely that you would describe this woman as friendly. If your description of the woman included the word friendly, it would be a behavioral trait inference because it was not explicitly mentioned in the text that the woman was friendly. Cognitive psychologists are interested in studying whether or not these types of inferences are made during reading.

Goal

To examine whether or not behavioral trait inferences for main characters become active in memory while participants read text in which the inference is supported but not explicitly stated.

Method

Participants. Thirty-two Minnesota State University, Mankato undergraduates from the Psychology Department received partial course credit for their participation.

Materials.

- Twenty-four passages similar to that presented in Table 1 were used.

- E-Prime 2.0, Psychology Software Tools, Inc. was used to present the passages and their probe words to the participants.

- Microphone: Connected to computer program (E-Prime 2.0) and used to record reaction time when participants were prompted to say a probe word aloud following each passage.

Norming. To ensure that each passage described the main character in a way to invoke the proper inference, a norming study was conducted. Forty participants were asked to read each passage and write down three one-word responses to describe the main character in the passage. Modifications were made to the original passages based on these responses.

Procedure. Participants read passages line-by-line on a computer by pressing a line-advance key. Immediately following each passage, a probe word was presented. Participants were asked to name the probe word aloud as quickly as possible. A comprehension question immediately followed each passage. The time it took participants to name the probe word was recorded.

Table 1.

Introduction

Josh had qualified to be in his school's yearly spelling bee because he was the best speller in his classroom. Josh and 50 other students would compete to determine who the best speller in school was. This was Josh's first spelling bee so he wasn't sure what to expect during the competition.

Trait 1 Elaboration

Josh did not like having a lot of attention given to him. Even though he was a very good speller he would never brag or look for attention. He was glad to be in the spelling bee but he didn't want people to think it was a big deal. Josh did not want it to seem like he thought he was better than other students.

Probe Word (Trait 1): Modest

Trait 2 Elaboration

Josh loved getting attention. Ever since he was very young, he has tried to get as much attention and compliments as he could. Josh loved to be at the center of everything and he would not pass up an opportunity to make clear he was better than other students. He was looking forward to the spelling bee because he saw it as an opportunity to outdo his fellow classmates.

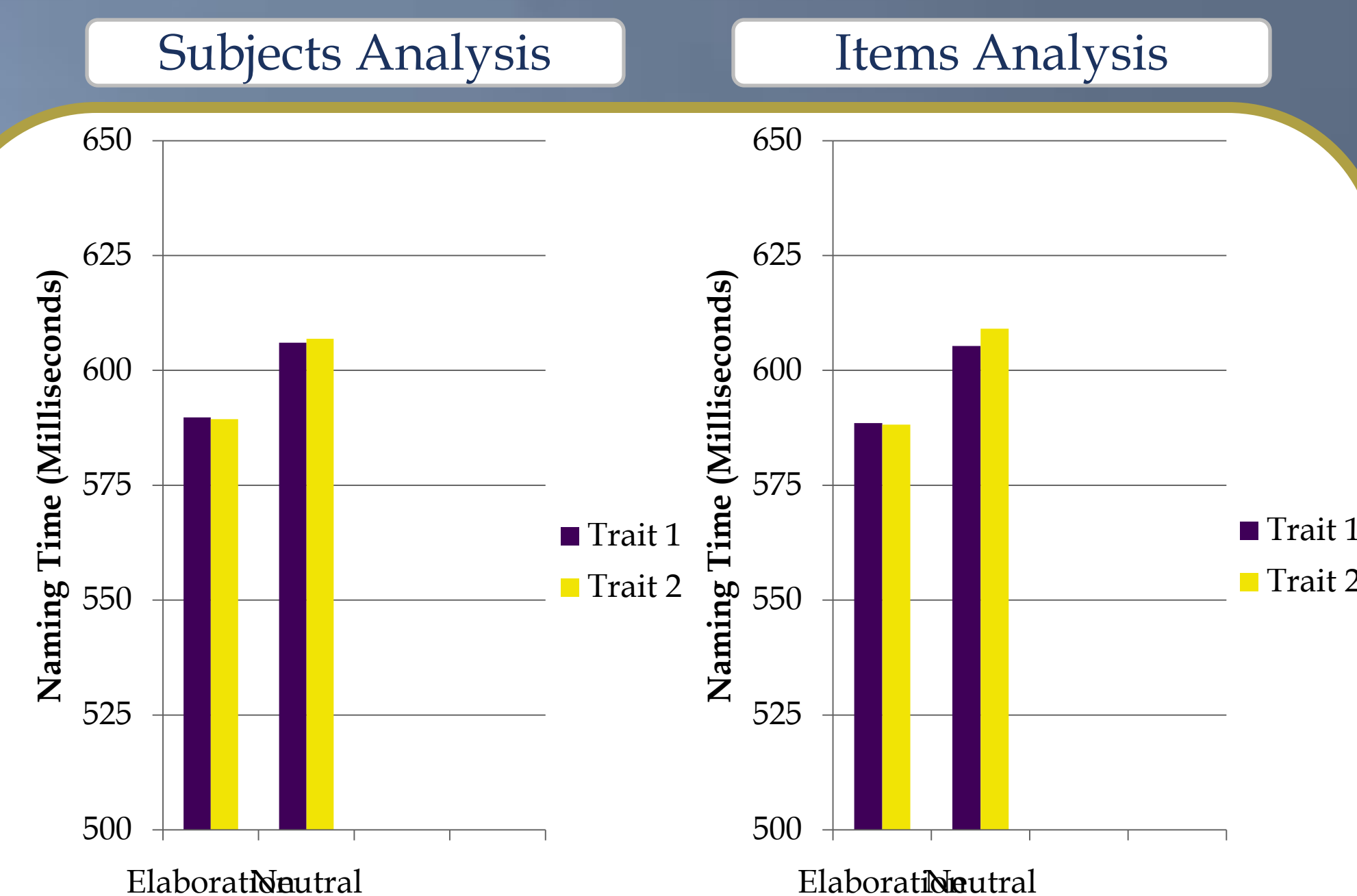
Probe Word (Trait 2): Show-off

Neutral Elaboration

Josh was indifferent about performing in the spelling bee. Josh seemed to always act appropriately with his classmates; taking credit when credit was due and complimenting others when they had accomplished something. He viewed the spelling bee as an assignment and would try his best but if he did not win, it would not bother him much. He decided that he would just try to have fun with it.

Comprehension Question:

Was this John's first spelling bee? (YES)



	Trait 1	Trait 2
Subjects		
Elaboration	589.76	589.39
Neutral	606.04	606.88
Items		
Elaboration	588.53	588.19
Neutral	605.29	609.06

Results

- Probe words were quickly named following text in which information related to the trait was elaborated compared to probe words that followed neutral text, for both participants, $F(1, 28) = 4.83$, $Mse = 1,888$; and for items, $F(1, 20) = 7.35$, $Mse = 1,156$.

- These results demonstrate that the elaboration section of the passage facilitated activation of information in memory related to the probe word. More specifically, the results of this study verify that behavioral trait information becomes activated in memory when it is inferred and not directly stated.

Discussion

- In a future study, we will use these passages to assess whether or not the activated inferences influence comprehension of subsequent text.

- For example, if readers infer a trait and then read text that is consistent with this trait, comprehension will likely be facilitated. However, if subsequent text is inconsistent with the inferred trait, comprehension will likely be disrupted.

- This series of studies will result in an understanding of how such inferences affect comprehension and more broadly, the implications of how this cognitive process can be used in impression formation in social contexts.

References

Uleman, J.S., Hon, A., Roman, R.J., & Moskowitz, G.B. (1996). On-line evidence for spontaneous trait inferences at encoding. *Personality Social Psychology Bulletin*, 22 (4), 377-394.