

The Processing of Implicit Stereotypes in Contexts of Reading, Using Eye-Tracking and Self-Paced Reading Tasks

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Abstract : The present study's objectives were to determine how diverse implicit stereotypes affect the processing of written information and linguistic inferential processes, such as presupposition accommodation. When reading a text, one constructs a representation of the described situation, which is then updated, according to new outputs and based on stereotypes inscribed within society. If the new output contradicts stereotypical expectations, the representation must be corrected, resulting in longer reading times. A similar process occurs in cases of linguistic inferential processes like presupposition accommodation. Presupposition accommodation is traditionally regarded as fast, automatic processing of background information (e.g., 'Mary stopped eating meat' is quickly processed as Mary used to eat meat). However, very few accounts have investigated if this process is likely to be influenced by domains of social cognition, such as implicit stereotypes. To study the effects of implicit stereotypes on presupposition accommodation, adults were recorded while they read sentences in French, combining two methods, an eye-tracking task and a classic self-paced reading task (where participants read sentence segments at their own pace by pressing a computer key). In one condition, presuppositions were activated with the French definite articles 'le/la/les,' whereas in the other condition, the French indefinite articles 'un/une/des' was used, triggering no presupposition. Using a definite article presupposes that the object has already been uttered and is thus part of background information, whereas using an indefinite article is understood as the introduction of new information. Two types of stereotypes were under examination in order to enlarge the scope of stereotypes traditionally analyzed. Study 1 investigated gender stereotypes linked to professional occupations to replicate previous findings. Study 2 focused on nationality-related stereotypes (e.g. 'the French are seducers' versus 'the Japanese are seducers') to determine if the effects of implicit stereotypes on reading are generalizable to other types of implicit stereotypes. The results show that reading is influenced by the two types of implicit stereotypes; in the two studies, the reading pace slowed down when a counter-stereotype was presented. However, presupposition accommodation did not affect participants' processing of information. Altogether these results show that (a) implicit stereotypes affect the processing of written information, regardless of the type of stereotypes presented, and (b) that implicit stereotypes prevail over the superficial linguistic treatment of presuppositions, which suggests faster processing for treating social information compared to linguistic information.

Keywords : eye-tracking, implicit stereotypes, reading, social cognition

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