

DISCOURSE CONTEXT IMMEDIATELY OVERRIDES GENDER STEREOTYPES DURING DISCOURSE READING: EVIDENCE FROM ERPS

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This study investigated how local gender stereotype information interacts with discourse context during Chinese discourse reading, to shed light on how social knowledge is used in language comprehension, an issue that has not been well addressed. Event-related potentials were recorded while 47 participants read – besides 200 filler discourses of various constructions – 160 critical two-sentence discourses, in which the first sentence provided the discourse context that either introduced a gender stereotype-countering attitude towards roles, such as “*One should strive for the target job, and getting a job should not be restricted by gender*” in (1a) and (1b) in Table 1, or was neutral, as in (2a) and (2b). The second sentence contained the critical clause in which the stereotypical gender of the object noun (a role name) was either consistent or inconsistent with the gender specified by the head noun (a kinship term) of the subject noun phrase, as in “*Li’s [daughter/son] became a nurse...*”. The object nouns elicited a significantly larger N400 and a significantly larger late negativity (LN) for the inconsistent compared to the consistent conditions in the neutral contexts. Crucially, when the discourse context offered information countering gender stereotypes, both the N400 and LN effects were reversed, with the negativities being significantly smaller for the inconsistent compared to the consistent conditions. The reversal of the N400 effects suggests that discourse contexts can immediately override the processing of gender stereotypes, and thus readers compute discourse context and local pragmatic information simultaneously during discourse reading. Therefore, although there has been evidence for a functional priority of local (syntactic and/or semantic) phrase-structure processing over the processing of discourse contexts (Nieuwland & van Berkum, 2008, Brain and Language; Yu, Zhang, Boland, & Cai, 2015, Brain Research), local sentence-level computations do not always necessarily precede the processing of discourse contexts.

Table 1. Design and discourse examples for all four critical conditions. Examples are given in English translations of Chinese discourses. The critical words are in bold.

Condition	Example
Stereotype-countering, consistent	(1a) One should strive for the target job, and getting a job should not be restricted by gender./ After much effort,/ Li’s/ daughter/ became/ a/ nurse ,/ and now/ works very well.
Stereotype-countering, inconsistent	(1b) One should strive for the target job, and getting a job should not be restricted by gender./ After much effort,/ Li’s/ son/ became/ a/ nurse ,/ and now/ works very well.
Neutral, consistent	(2a) One should strive for the target job, and should not be afraid of difficulties./ After much effort,/ Li’s/ daughter/ became/ a/ nurse ,/ and now/ works very well.
Neutral, inconsistent	(2b) One should strive for the target job, and should not be afraid of difficulties./ After much effort,/ Li’s/ son/ became/ a/ nurse ,/ and now/ works very well.