

## DISCOURSE-BASED EFFECTS IN COMPREHENSION: WHEN HEARERS EXPECT NEW INFORMATION

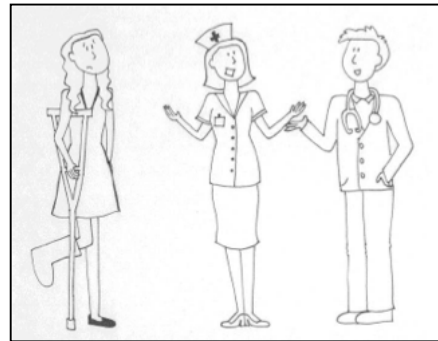
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The distribution of information in the discourse is affected by information status; for example, it has been shown that there is a strong tendency amongst many languages to place old information before new information in a sentence (see Arnold et al. 2013 for a review). In English, this ‘information shuffling’ can be achieved through the use of non-canonical syntax, such as passives and inversions. Our focus here is on English Existentials (e.g., *There’s a fly in my soup*). In this construction, the post-verbal noun after “There is” (e.g. ‘fly’) introduces information that the speaker believes to be *new* to the hearer (Prince, 1992). We investigated how quickly listeners use this kind of information during real-time language processing (see also Kaiser & Trueswell 2004 in Finnish). Can hearers anticipate that new information will be mentioned as soon as they encounter an existential, even before they have heard the noun?

**Experiment:** Thirty-three monolingual English speakers participated in a visual-world eye-tracking study. They heard sentences like ex.(1,2) while viewing images like the example shown.

(1) *A nurse was discussing new procedures with the doctor. There was a sad patient with a broken leg in the reception area, waiting for her turn.* [target]

(2) *A nurse was discussing new procedures with the doctor. That day a sad patient with a broken leg was in the reception area, waiting for her turn.* [control]



On targets, the first sentence introduced two out of the three pictured characters (e.g., nurse and doctor). This was followed by a second sentence, which was an Existential (ex.1) or a control sentence initiated by a temporal expression (ex.2). (Fillers involved images with differing numbers of characters, and not all of them were mentioned in the auditory stimuli.)

**Predictions:** If listeners are sensitive to the discourse properties of the existential construction, they should start to look at the new, unmentioned patient *even before hearing the noun ‘patient.’* In the control condition, no such anticipatory looks are expected.

**Results.** We analyzed the proportion of looks to the unmentioned entity during a 400ms time window starting at the onset of the existential (“There was...”). Crucially, this window ends *before* the onset of the NP. We find that during this time, participants are significantly more likely to look at the new character in the Existential than the Control condition ( $p < 0.05$ , see figure). Thus, even before hearing the noun, participants are able to predict that the upcoming noun will refer to a new, previously unmentioned entity.

**As a whole,** our results indicate that hearers expect new information to be mentioned immediately following an Existential construction, and can use this information rapidly during real-time language processing to guide their expectations about who will be mentioned next. This points to a rapid integration of syntactic and discourse/pragmatic information.

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## References

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