

The dynamic prominence status of thematic roles in simulated Mandarin conversations

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In discourse the prominence status of an entity changes across time. Language systems employ syntactic and information-structural operations to reflect such dynamic status (see [1] for a review). For example, Mandarin constructions (2) – (6) all assign prominence to the Patient (Beckham) but with different magnitude. Specifically, BA-construction (6) encodes the Patient before the verb rendering it conceptually more prominent than a neutral Patient in a canonical SVO structure (1) but still less prominent than the sentence-initial Agent (Obama in (6)), whereas topicalisation (TOP), left-dislocation (LDT), focalisation (FOC) or passive encodes the Patient in the sentence-initial position ranking it more prominent even than the Agent (2-5). However, we still know little about how speakers in conversation accommodate discourse constraints when generating messages that reflect the dynamic prominence status of thematic roles in an event [2]. Do they maintain the prominence status of one particular thematic role across different messages? Do they take into consideration their interlocutors' information-seeking goals?

We investigated this with Mandarin speakers in three experiments (N=48, 64 & 39) using a confederate-scripted priming paradigm in which participants and a confederate took turns to describe pictures to each other and used a keyboard to indicate whether their pictures matched or mismatched their interlocutor's descriptions (mismatched pictures had one difference in either Patient or Agent). The confederate always gave descriptions first using SVO, TOP, LDT or an intransitive baseline in Expts 1&3, or using SVO, TOP, FOC or an intransitive baseline in Expt 2. Participants then described a different picture depicting the same action with different Agent (animate) and Patient (inanimate). Additionally, in Expt 3 interlocutors asked each other a scripted question before the other gave descriptions and the Patient in the target picture was always topicalised in a question (e.g. *the table, who knocked-over?*). Across all experiments, participants showed a tendency to maintain the prominence status of the Patient when generating different messages: they were more likely to produce patient-prominent responses after a TOP ($p < .001$ in Expts 1&2; $p < .01$ in Expt3) or FOC ($p < .001$ in Expt 2) than an SVO prime. Interestingly, LDT led to more patient-prominent responses than SVO did ($p < .01$) but less than TOP did ($p < .05$) in Expt1, however, both differences disappeared in Expt 3 ($p = .52, .28$). Given that LDT shares prominence representation with TOP and (at least partially) syntactic representation with SVO, and that the topic-setting question interfered with primes in Expt 3, these results cannot be explained by purely syntactic priming but better explained by a priming effect of prominence independent of syntax.

Moreover, even while maintaining prominence status, participants used constructions that were not used by their interlocutor. In Expts 1&2, they tended to use BA-construction (98% of patient-prominent responses in Expt 1; 86% in Expt 2) to elevate the prominence status of the Patient to a higher gradient but not as high as the animate Agent, suggesting that while maintaining prominence of the Patient, speakers adjust its magnitude to accommodate discourse constraints (e.g. animacy hierarchy). In contrast, in Expt 3 where participants' descriptions constituted an answer to their interlocutor's topic-setting questions, when producing patient-prominent responses they tended to use an ellipsis (45%), passive (20%) or TOP construction (25%) to rank the Patient more prominent even than the Agent despite the constraints of animacy hierarchy (significant effect of experiment in a combined analysis of Expts 1&3: $pMCMC < .01$). This suggests that speaker's knowledge of their addressee's communicative goals influences their encoding of entity prominence in message planning in a top-down fashion that outweighs animacy.

Taken together, our studies show that speakers maintain the prominence status of a thematic role across different messages and in doing so they accommodate pragmatic constraints in dialogue.

Table 1. Prominence status of the Patient in different constructions in Mandarin

Example	Construction	Prominence status of the Patient
(1) <i>Aobama ti-dao le</i> Obama kick-fall aspect-marker(ASP) LE <i>Beikehanmu.</i> Beckham	SVO	Neutral
(2) <i>Beikehanmu, Aobama ti-dao le.</i> Beckham Obama kick-fall ASP-LE	TOP	Topicalised
(3) <i>Beikehanmu, Aobama ti-dao le ta.</i> Beckham Obama kick-fall ASP-LE him	LDT	Left-dislocated
(4) <i>Shi Beikehanmu bei Aobama ti-dao le.</i> Focus-marker Beckham BEI Obama kick-fall ASP-LE	FOC	Focalised
(5) <i>Zhuozi bei Chenglong ti-dao le.</i> table BEI Jackie Chan kick-fall ASP-LE	BEI (Passive)	BEI-subject
(6) Chenglong <i>ba zhuozi ti-dao le.</i> Jackie Chan BA table kick-fall ASP-LE	BA	BA-object
(7) Chenglong <i>ti-dao de.</i> Jackie Chan kick-fall ASP-DE	Ellipsis	Null-pronominalised

References

- [1] Von Heusinger, K., & Schumacher, P. B. (2019). Discourse prominence: Definition and application. *Journal of Pragmatics*, 154, 117-127. <https://doi.org/10.1016/j.pragma.2019.07.025>
- [2] Ünal, E., Ji, Y., & Papafragou, A. (2019). From Event Representation to Linguistic Meaning. *Topics in Cognitive Science*. <https://doi.org/10.1111/tops.12475>