

HOW MANY ROLES DO WE NEED IN SENTENCE PROCESSING?

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Theoretical approaches categorize thematic roles in two different ways: (1) lists of independent thematic roles (henceforth TR), such as Agent, Instrument, Experiencer, Patient or Theme, hierarchically organized (Fillmore, 1963, 1971). (2) Proto-Roles approach (henceforth PR) proposes only two proto-roles, Proto-Agent and Proto-Patient to determine subjecthood; the argument with most Proto-Agent entailments becomes subject (Dowty, 1991). There is ample psycholinguistic evidence for agent and patient thematic roles as core knowledge categories, but evidence for other roles is scarce (Rissman & Majid, 2019). We present evidence in favor of PR approach, looking at experiencer role processing. Experiencer role is a participant of psych and perceptual verbs. It can appear combined with a Theme (Experiencer-Theme) or with an Agent (Agent-Experiencer) (Pesetsky, 1995). PR approach considers Experiencer role to be Proto-Agent candidate since it has the proto-agent entailment of sentience. In Agent-Experiencer structures, PR approach predicts that both arguments can be proto-agent, involving larger processing load compared to prototypical Agent-Theme structures. However, in Experiencer-Theme structures, PR approach predicts that only the Experiencer can be proto-agent, facilitating processing compared to Agent-Experiencer. TR approach will not predict higher processing cost in Agent-Experiencer structures, since it considers both arguments to be independent categories, furthermore, Agents are higher in thematic hierarchies than Experiencers. There is psycholinguistic evidence that Agent-Experiencer structures involve larger processing cost in active voice than Experiencer-Theme in active voice (Do & Kaiser, 2021). **Methods.** Eye-tracking reading task. 48 Spanish native speakers. Twenty verbs per condition, repeated twice, controlled by length and frequency, were selected to create forty experimental sentences with four different versions each, as a result of crossing: Verb Type (Psych vs. Non-psych) and Argument Structure (Experiencer-Theme vs. Agent-Theme/Experiencer) variables (see table 1). Experimental sentences were normativized for naturalness with an acceptability task. Participants read 130 sentences (10 practice sentences, 40 experimental sentences and 80 fillers). **Results.** Participants' Total Duration fixations were larger on Agent-Experiencer than on Agent-Theme structures at verb region ($p=.004$). They made larger reading times also on Agent-Experiencer than on Agent-Theme ($p=.006$). There were not significant differences between Experiencer-Theme and Agent-Theme. **Discussion.** The higher processing load of Agent-Experiencer structures compared to Agent-Theme is explained with PR approach: both Agent and Experiencer are considered Proto-Agents; having two Proto-Agents participants increase difficulty to identify which one is the subject and which one is the object. If they were distinct categories, as TR argues, there should not be such processing load. We argue that only Proto-Agent and Proto-Patient role categories are needed in processing.

Table 1. Examples of experimental sentence per conditions.

Agr Stru	Verb Type	Sentence (Regions: subject/verb/object/post-object/last word)
[EXP-THEM]	Psych	La cantante / desea / al poeta / durante el recital de / poesía.
[EXP-THEM]	Non-Psych	La cantante / contempla / al poeta / durante el recital de / poesía.
[AGT-EXP]	Psych	La cantante / enamora / al poeta / durante el recital de / poesía.
[AGT-THEM]	Non-Psych	La cantante / abandona / al poeta / durante el recital de / poesía. <i>The singer /desires/contemplates/makes fall in love/abandons /the poet/during the poetry/recital.</i>
