Focus Facilitation and Non-associative Sets

Contrastive focus is frequently analyzed as introducing into a derivation other constituents that may serve as alternatives to the contrastively focused constituent (c.f. Rooth 1992). For instance, in the simplified ex. (1) below, **Jane** is contrastively focused so in the alternative semantic meaning, the subject of the sentence is a variable that must be a member of a the set C. The members of set C are anyone who is determined by the context to potentially love Mark, including Jane.

(1) **Jane** loves Mark.
   a) ordinary semantics: ∃x∃y. x=Jane & y=Mark & loves(x,y)
   b) alternative semantics: ∃x∃y. x∈C & y=Mark & loves(x,y) & C= {Jane, Susan, Amy}

There is past experimental work showing that contrastively focusing a constituent makes it easier to access salient alternatives to that constituent. Kim et al 2010 used an eyetracking study to show that participants could disambiguate a target word from a cohort competitor faster when that word was preceded by 'only' or 'also.' Norris et al 2006 and Braun & Tagliapietra 2009 both used a cross modal priming studies to show that participants could correctly identify strings of letters as real words faster when the word was an associate of the last word of a contrastively focused priming sentence.

Purpose: The current study has two purposes: 1) Replicate the results of the previous experiments, showing that contrastively focusing a constituent makes alternatives to that constituent more salient. 2) Investigate whether non-associative sets can also serve in the set of alternatives.

Method: Participants were shown four sentences, one at a time, and then a target word. They pressed "f" if the target was a real word of English and "j" if the target was a nonword. Ex. 2 is an example item. The first sentence ends in a list of three items. One of these is the target word; one of these is an associate of the target word with a relatedness rating of .08-.25[1], and one of these is not an associate of the other two words. The second sentence assigns a common property to the list. The third sentence begins a short narrative that sets up the fourth sentence. The last word of the fourth sentence is either preceded by 'only' in order to contrastively focus it, or else remains bare and could be the associated word from the first sentence, the non-associated word from the first sentence, or an unmentioned word. This made for six conditions.

2) Rose lives to search old tombs, temples, and graves.
   She studies these as an archeologist.
   This year, she couldn't find very many new sites.
   Focused associated: The whole year, she searched only a grave.
   Unfocused associated: The whole year, she searched a grave.
   Focused unassociated: The whole year, she searched only a temple.
   Unfocused unassociated: The whole year, she searched a temple.
   Focused unrelated: The whole year, she searched only a palace.
   Unfocused unrelated: The whole year, she searched a palace.
   Target: tomb

All target words had a frequency between 10 and 30 words per million, but the target word for an item was kept constant across conditions so that differences in word frequency, etc wouldn't favor one condition. The associated word, the non-associated word, and the unrelated word were all matched for frequency within an item. Fillers included both words and non-words. Across the experiment, participants saw as many real words as non-words.

Results and Discussion: The study was able to replicate the results of previous work: participants were faster to recognize the target as a word when the prime word was preceded by the focus particle 'only.' This is further evidence that sets of alternatives are actually considered by speakers when they hear a contrastively focused word. Additionally, the non-associated words, but crucially not the unmentioned words, were able to prime the target word in both the focused and the unfocused conditions. Other work (McKoon & Ratcliff 1979) has shown that speakers use episodic memory as well as semantic memory in priming tasks; this study shows that episodic

1 Relatedness was based on the University of Southern Florida free association database. The number is acquired by dividing the number of people in a group who responded with the target word (ex: tomb) when given a certain prime (ex: grave) by the total number of people in the group.

information is also considered when composing a set of alternatives for a contrastively focused constituent.

Works Cited

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