Focus Facilitation and Non-associative Sets

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One of the primary challenges for interpreting prosodic phenomena is determining the meaning of contrastive focus. Contrastive focus is frequently analyzed as introducing into a derivation other constituents that may serve as alternatives to a contrastively focused constituent (c.f. Rooth 1992). For instance, in 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 set of individuals, C.

1) Jane loves Mark.
   a) ordinary semantics: \( \exists x \exists y. x = Jane \& y = Mark \& \text{loves}(x,y) \)
   b) alternative semantics: \( \exists x \exists y. x \in C \& y = Mark \& \text{loves}(x,y) \& C = \{ Jane, Sue, Amy \} \)

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 the target word was preceded by 'only' or 'also.' Norris et al 2006 and Braun & Tagliapietra 2009 both used cross modal priming studies to show that participants access alternatives to a contrastively focused prime faster than non-alternatives. However, the experimental evidence showing whether alternatives to a focused constituent are cognitively real is still quite limited.

**Purpose:** The current study has two purposes: 1) Provide evidence for alternative semantics by showing that alternatives to a contrastively focused prime are more salient than non-alternatives. 2) Investigate whether words that are not semantic associates can be in the set of alternatives.

**Method:** Participants (n=42) were shown four sentences, one at a time, and then a target word in a lexical decision task. The first sentence ended in a list of three items: the target word, an associate of the target word, and a non-associate of the target word. An associate was a common response to a cue word (see Nelson et al 1998’s norms). A non-associate was never a response to a cue word. The second sentence assigned a common property to the list. The third sentence began a short narrative, and the fourth sentence ended in the associated word, the non-associated word, or an unmentioned, unassociated word. This last word was focused with the word ‘only’ on half of the trials. This made for six conditions. (See example item below.)

The target word for an item was kept constant across conditions so that potential differences wouldn't favor one condition. The associated word, the non-associated word, and the unmentioned word were all matched for frequency within an item. Across the experiment, including fillers, participants saw as many real words as non-words.

2) **Example Item:** 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. The whole year she searched…

   Focused associated: …only a grave.       Unfocused associated: …a grave.
   Focused unassociated: …only a temple.    Unfocused unassociated: …a temple.
   Focused unmentioned: … only a palace.    Unfocused unmentioned: …a palace.

     Target: tomb
Results and Discussion: Participants were faster to recognize the target as a word when the prime word was preceded by the focus particle 'only' (p<.05, F1=6.62, F2=4.53) even though this study relied on silent prosody (Fodor 1998, 2002). This is further evidence that sets of alternatives are actually considered by speakers when they hear a contrastively focused word and that previous results were not just a reaction to additional salience upon hearing an accented word. Additionally, the non-associated words were able to prime the target word in both the focused and the unfocused conditions (focused: p<.05, t1=-3.2, t2=-2.2; unfocused: p1<.05, t1=-2.1, p2=.067, t2=-1.8). Other work (McKoon & Ratcliff 1979) has shown the importance of episodic memory; this study shows that episodic information is also considered when composing a set of alternatives for a contrastively focused constituent. There is some slight ambiguity with this result though as priming was determined by comparing the non-associated conditions with the unmentioned conditions which, in addition to being unrelated, were also not given. Therefore, it should also be mentioned that that the focused unassociated condition was marginally faster than the unfocused unassociated condition (p1= .076, p2= .097; t1= -1.8, t2= -1.6). This further shows that participants are included unassociated items in their list of alternatives for a focused constituent.

Works Cited


