Contrastive negation and the theory of alternatives
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Contrastive negation (CN) describes a negated sentence containing an accented constituent, which is contrasted with some true alternative sentence. It has been analyzed as a kind of association with focus, in which the contrasted alternative is selected from a set of focus-alternatives (Jackendoff 1972; Rooth 1999). Here we consider contrastive negation with presupposition-bearing items, and find that this empirical domain gives insight into the theory of alternative sets. We find evidence for two properties of alternative sets: (i) alternatives are tightly constrained to those items which have equivalent assertions or presuppositions; (ii) alternatives are constructed via lexical substitution and deletion. We also make a distinction between two types of CN: presupposition-denying CN, and presupposition-preserving CN. We discover that the constraints on alternatives in presupposition-denying CN gives rise to alternative sets similar to those that are needed in the theory of Maximize Presupposition (MP), used to generate antipresuppositions. This similarity suggest that both of these empirical domains (MP and CN) may be used as probes to investigate the theory of alternatives.

Presupposition-denying CN. Example (1) shows presupposition-denying CN of the, which evokes the alternative set (2). Notice, crucially, that only the uniqueness presupposition can be denied, not the existence presupposition.

(1) a. Jake isn’t THE student who failed the midterm, many students failed the midterm.
   b. # Jake isn’t THE student who failed the midterm, no one failed the midterm.

(2) \{ [[Jake is D student who failed the midterm]] \in D_{\langle\langle e,t\rangle,\langle\langle e,t\rangle, t\rangle}\rangle} \}

Although negation is usually a hole for presuppositions, the presupposition-denying behaviour can be captured by assuming that local accommodation applies (Heim 1991). As a first step, the unavailability of (1b) can be captured by appealing to two aspects of the alternative set: (i) one member of the set is true (the so-called existential presupposition of focus, cf. Jackendoff 1972; Rooth 1999), (ii) the alternative set is constrained to only those items which are Strawson-equivalent to the focus-less affirmative version of (1) (based on Strawson-entailment in von Fintel 1999). The attested reading (1a) can be generated if the only alternative to the is a: in such a case, existence is preserved (since a is an existential quantifier) but uniqueness is not, as desired. The only alternative quantificational determiners that deny uniqueness without necessarily preserving existence are no and every (assuming their purely logical denotations). The alternative with no is not a valid alternative according to (ii), since replacing the in (1) with no does not lead to a Strawson-equivalent sentence. The alternative with every entails that the definite’s presupposition is true, a contradiction, since the presupposition is denied by negation and local accommodation.

Presupposition-preserving CN. The in (1) lacks a presupposition-preserving reading, but both, in (3), has both readings.

(3) a. Jimi isn’t bringing BOTH of his guitars, he’s bringing all three of them.
   b. Jimi isn’t bringing BOTH of his guitars, he’s bringing neither of them.

The presupposition-denying reading is (3a), where both’s presupposition — that Jimi has exactly two guitars — is denied via local accommodation, and the true alternative is all, which respects the constraint in (ii), since all shares both’s assertion. The presupposition-preserving reading is
(3b), where the true alternative to both is neither. Notice that neither the same presupposition as both but the opposite assertion, violating constraint (ii). Then, this case requires a different, but related constraint: (ii\textsuperscript{'}): the alternative set is constrained to those items whose presuppositions are equivalent to the focus-less affirmative version of (3). Constraints (ii, ii\textsuperscript{')}) will be formalized below.

**Substitution and Deletion.** Why does (1) lack a presupposition-preserving reading? To comply with (ii\textsuperscript{')}), we require an alternative which has the same presupposition as the, but a different assertion. There are no such quantificational determiners in English. This suggests that alternatives are constrained to lexical alternatives. But this is not the only way to construct alternatives, consider the presupposition-denying (4).

(4) Emilia didn’t come to Montréal AGAIN (, this was the first time she came).

The salient alternative to (4) is Emilia came to Montréal, where again is deleted. This alternative is Strawson-equivalent to the focus-less affirmative version of (4). (4) lacks a salient presupposition-preserving reading, since there is no lexical alternative to again with the same presupposition. The hypothesis that both substitution and deletion are permitted in constructing alternatives converges with the theory of structurally-defined alternatives of Fox and Katzir (2011) and Katzir (2007), who propose that the alternatives to a sentence \( \phi \) can be as complex or less complex as \( \phi \).

**Two general proposals on alternatives.** We propose that (5) constrains alternative sets.

(5) a. **Definition.** If \( \phi = X[Y]_F Z \), where \( X \) and \( Z \) may be empty, and \( Y \) focus-marked, then: 
\[
\left[ \left[ \phi \right] \right] = \left\{ \left[ X\alpha Z \right] : \left[ \alpha \right] \in \text{Dtype}(Y) \wedge \alpha \in \text{LEX} \right\} \cup \{ [XZ] \}. \text{ (notation from Rooth 1992)}
\]

b. **Constraint.** Either (i) \( \forall \psi \in [\phi] : \psi \) is Strawson-equivalent to \( [\phi]^o \), or (ii) \( \forall \psi \in [\phi] : \psi \)’s presupposition is equivalent to \( [\phi]^o \)’s.

Definition (5a) expresses that alternatives may be constructed via substitution of a lexical item of the same type as the focus-constituent or deletion of the focus-constituent. (5b) expresses that all the alternatives in \( \phi \)’s focus set must be equivalent in their presupposition or assertion to \( \phi \)’s ordinary semantic value.

The proposals in (5) suffice to generate the necessary sets of alternatives; they are (in abbreviated form) \{the, a\} for (1), \{both, all\} for (3a), \{both, neither\} for (3b), and \{again, \emptyset\} for (4). The sets for presupposition-denying cases (1, 3a) mirror the alternatives evoked in MP (Heim 1983; Percus 2006; Sauerland 2008), who account for the anti-uniqueness inference of a by competition with the, and the >2 inference of all by competition with both. Chemla (2008) evokes our alternative set for again to give an MP analysis of exhaustivity inferences in sentences that lack again. In light of these parallels, we suggest that (5) are not only rules for the construction of focus alternatives, but may serve as the basis for a general theory of alternative sets.

**Conclusion.** By examining contrastive negation of presuppositional items, we find evidence for two constraints on focus-alternatives, not present in the unconstrained theory of Rooth (1992): that alternatives formed by substitution must be lexical alternatives, and that alternatives must be equivalent either to the presupposed or asserted content of the prejacent. We also find evidence that deletion is permitted in constructing alternative sets. Our proposals on alternative sets show parallels with the literature on Maximize Presupposition and on structurally-defined alternatives. These parallels suggest that contrastive negation may serve a new methodological tool to advance our general understanding of alternative sets.
References


