

# Disjuncts must be mutually excludable<sup>1</sup>

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The following is odd, unless ‘American’ can be contextually understood to imply ‘not Californian’:

- (1) # Jake is an American or a Californian.

Hurford (1974, 410) uses (1) to argue that “The joining of two sentences by *or* is unacceptable if one sentence entails the other [...]” (‘Hurford’s Constraint’). Stalnaker (1975, 278) equivalently hypothesized that “a disjunctive statement is appropriately made only in a context which allows either disjunct to be true without the other.” (‘Stalnaker’s Constraint’). This snippet raises novel issues with HC/SC looking at n-ary disjunction.

HC/SC, when stated as above, fail to explain (2):

- (2) a. # Jake is an American, (or) a Canadian, or a Californian.  
b. # Jake is a Californian, (or) a Canadian, or an American.

At least the parse in which *Canadian or Californian* forms a constituent does not violate HC/SC, since it neither entails *American* nor is it entailed by it. To account for (2), we could apply HC/SC in pairwise fashion to the set of all disjuncts. If disjunctions introduce sets of alternatives (Aloni, 2003; Alonso-Ovalle, 2005; Simons, 2005; Alonso-Ovalle, 2006, 2008), then grammar should have access to this set. A pairwise HC/SC, however, fails to rule out (3):

- (3) a. # Sally left, (or) Sally didn’t leave, or Jake left.  
b. # Sally left, (or) Jake left, or Sally didn’t leave.

The same effect arises with contextual entailment:

- (4) # Sally is left-handed, (or) right-handed, or from Montréal.

We can generalize HC/SC instead as follows:

- (5) Mutual excludability (‘ME’):

*Stalnakerian formulation:*

Each disjunct must be contextually compatible with the negation of all others

*Equivalent Hurfordian formulation:*

No disjunct may contextually entail the disjunction of all others

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ME has some interesting properties: It requires that disjunctions be maximally ‘strengthenable’, such that each disjunct *could* be the only true one. Disjunctive expressions are usually assumed to be strengthened in competition with conjunctive alternatives (Sauerland 2004, and Alonso-Ovalle 2008 for *n*-ary disjunction). Fox (2007) argues that strengthening excludes all innocently excludable alternatives, i.e. those excludable without arbitrary choices. ME guarantees that the exclusion of any conjunctive alternative will be innocent (the reverse is not true, as (1) shows—IE is not context sensitive). In (3), however, *J* is incompatible with excluding both *S&J* and *not(S)&J*, so neither is innocently excludable.

ME in fact permits to strengthen disjunctions by strengthening individual disjuncts with the negation of the others, without reference to conjunctive alternatives (see Singh 2008 for a related idea of exhaustifying individual disjuncts relative to a question under discussion.)

What could explain ME, especially in unstrengthened disjunctions? Stalnaker argues that SC follows from pragmatic constraints on assertability: “...the disjunction would be equivalent to the assertion of one of the disjuncts alone. So the disjunctive assertion would be pointless, hence misleading, and therefore inappropriate.” Mayr and Romoli (2016) and Meyer (2016) develop related pragmatic accounts for HC/SC.

This rationale could explain (2). It is also compatible with the felicity of (6): the second conjunct is crucial to convey ignorance (Zimmermann, 2000):

- (6) Sally left or Sally didn’t leave.

However, it is not clear that it can explain (3) and (4), where dropping a disjunct should not lead to the same meaning. Consider:

- (7) a. Sally is left-handed or from Montréal.  
b. Sally is left-handed or right-handed.

Unlike (4), (7a) entails that if Sally is right-handed, she is from Montréal; and (7b) fails to convey ignorance about whether Sally is from Montréal. It seems that (3) and (4) pose a new puzzle for pragmatic accounts for HC/SC, or at least they do for Stalnaker’s. It should also be noted that Zimmermann (2000) and Singh (2008) argue for constraints even stronger than ME, which would cast a different light on what might explain ME.

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