

Even in Hurford disjunctions

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Overview. Our goal is to account for the fact that *even* can save Hurford disjunctions. We observe that *even* facilitates inferences that are otherwise impossible, and once these are taken into account, the effect of *even* on Hurford disjunctions is expected. We provide an account of this effect that relies on (a) the assumption that additive presuppositions block contradictory implicatures (Bade, 2016), and (b) a requirement that the set of alternatives for exhaustification partition the context set (Trinh *et al.*, 2026).

Background. *Even* can save Hurford disjunctions from infelicity (Westera, 2020; Krifka, 2024):

(1) Kim lives in France or # (even) in Paris.

On the face of it, Hurford’s constraint (HC) is violated in (1) with or without *even*, but the *even* variant is surprisingly acceptable, a fact that most theories of HC (Singh 2008; Schlenker 2009; Katzir and Singh 2014, a.o.) don’t explain. Krifka (2024) provides the only account of this effect, and argues that *even* marks a weaker commitment of the speaker, thus avoiding a violation of HC due to an LF along the lines of (2), where no disjunct entails the other.

(2) $\Box_S \text{France} \vee \Diamond_S \text{Paris}$ ($\Box_S$ and $\Diamond_S$ stand for strong and weak speaker beliefs, resp.)

This analysis faces some problems: First, the truth conditions end up too weak: (2) is true even if the speaker is unsure whether Kim lives in Paris or in London. Second, this account does not generalize to cases like (3), where *even* is embedded under an existential modal. Alluding to weaker commitments would not help here, as the speaker does not commit to Kim living in France at all.

(3) Kim might live in France or # (even) in Paris.

We thus pursue a different explanation which doesn’t face these problems, and, unlike Krifka’s, is based on standard (though not entirely uncontroversial) assumptions about the semantics of *even*.

Exhaustification with an *even*-alternative. Hurford disjunctions of the form *some or all* are known to be felicitous. Chierchia *et al.* (2012) argued that they involve an embedded *exh* operator, which exhaustifies *some* to entail *not all*, thus breaking the entailment between the disjuncts and avoiding a violation of HC. With Hurford disjunctions of the form *France or Paris* this is impossible, since usually *France* cannot be exhaustified to entail *not Paris*, even when *Paris* is a salient alternative (see Tomioka 2021 for the connection between contrast and HC):

(4) #John lives in France, and Mary lives in Paris. $\nrightarrow$ John doesn’t live in Paris

We however observe that, crucially, when *France* has *even Paris* as a salient alternative, it becomes possible to derive this inference:

(5) John lives in France, and Mary even lives in Paris. $\leadsto$ John doesn’t live in Paris

Given that exhaustification of *France* to entail *not Paris* is possible when *even Paris* is a salient alternative, *France or even Paris* is expected to behave just like *some or all*, leading to felicitous Hurford disjunctions by breaking the entailment via exhaustification:

(6) a. Kim lives in *exh*[France] or even in Paris
b. $[\text{France} \wedge \neg \text{Paris}] \vee \text{even Paris}$

Unlike the problem noted above for Krifka’s (2), a speaker who commits to the truth of (6b) is committed to Kim living in France. And one would also correctly expect the ignorance inferences according to which the speaker is not sure whether Kim lives in Paris or somewhere else in France.

Embedding under an existential modal. The same explanation holds for the felicity of Hurford disjunctions with *even* embedded under an existential modal, as in (3), and it predicts the attested free choice inferences that Kim might live in Paris and might live somewhere else in France (assuming an implicature account of free choice, Fox 2007):

(7) a. $\text{exh} \Diamond [\text{exh}[\text{France}] \vee \text{even Paris}] = \text{exh} \Diamond [[\text{France} \wedge \neg \text{Paris}] \vee [\text{Paris}]]$
b. $\leadsto \Diamond [\text{France} \wedge \neg \text{Paris}] \wedge \Diamond [\text{Paris}]$

Our analysis of the felicity of (1) and (3) is compatible with all accounts of HC where exhaustification rescues from violations of HC. The remaining question is how *even* enables this exhaustification. **The additive presupposition of *even*.** A crucial assumption for our account is that *even* has an additive presupposition (Karttunen and Peters 1979):

$$(8) \quad \llbracket \text{even} \rrbracket(C)(p) \text{ is only defined if } \exists q[q \in C \wedge q \neq p \wedge q = 1]$$

This presupposition is contested (Rullmann 1997, Crnič 2011, Greenberg 2016, a.o.), but see Francis (2024) for arguments in its favor. With (8), $\text{even}(\{\text{France}, \text{Paris}\})(\text{Paris})$ presupposes *France*.

Good and bad alternative sets. We propose that the additive presupposition is responsible for the felicity of Hurford disjunctions with *even*, because it creates logical entailment between *even Paris* and *France*, which makes these alternatives a good alternative set for exhaustification. Specifically, we rely on a proposal by Trinh *et al.* (2026) (who build on Fox 2018; Katzir 2024), according to which alternative sets for exhaustification need to be good questions, and good questions must induce a partition of the context set by point-wise exhaustification of their alternatives:

- (9) a. **Partition by Exhaustification (PbE):** An alternative set Q is a good question given a context set C only if E_Q is a Partition of C .
b. $E_Q = \{\text{exh}(Q)(p) | p \in Q\}$

Assuming *exh* doesn't derive logical contradictions but does derive contextual contradictions (Fox 2007; Magri 2009), point-wise exhaustification of Q in (10a) (where *even* is not present) yields a contextual contradiction in E_Q in (10b), because *Paris* entails *France* contextually but not logically:

- (10) a. $Q = \{\text{France}, \text{Paris}\}$
b. $E_Q = \{\text{France} \wedge \neg \text{Paris}, \text{Paris} \wedge \neg \text{France} (\Leftrightarrow_c \perp)\}$

A set with a contextual contradiction cannot satisfy PbE (Bar-Lev and Fox, 2023), hence Q in (10a) is not a possible domain for *exh*. With *even*, in contrast, the contradiction is avoided: Due to its additive presupposition, $\text{even}(\{\text{France}, \text{Paris}\})(\text{Paris})$ *logically* entails *France*, hence the contradiction is avoided (in this we follow Bade 2016, who makes the same assumptions concerning additive presuppositions and exhaustification), and the set induces a partition (we use S_p to indicate that S presupposes p):

- (11) a. $Q = \{\text{France}, \text{even}(\{\text{France}, \text{Paris}\})(\text{Paris})\} = \{\text{France}, \text{Paris}_{\text{France}}\}$
b. $E_Q = \{\text{France} \wedge \neg \text{Paris}_{\text{France}}, \text{Paris}_{\text{France}}\}$

Therefore, when the alternative of *France* is *even Paris*, exhaustification of *France* to entail *not Paris* is possible; *even* ensures logical (rather than merely contextual) entailment between the alternatives, thus avoiding deriving a contradiction. The set in (11a) then ends up completely parallel to the set {some, all}, where the logical entailment between the alternatives allows exhaustification.

Conclusion. We proposed an account of the felicity of Hurford disjunctions of the form *France or even Paris* based on the novel observation that *France* can imply *not Paris* when its alternative is *even Paris*. We proposed an explanation for this by assuming that sets of alternatives are required to satisfy PbE, which can be satisfied in the presence of *even* due to its additive presupposition. The advantages of this account are the standard semantics for *even* that it assumes, the adequate truth conditions it derives, and its ability to extend to disjunctions under existential modals.

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