

# Factivity and Presuppositions

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## 1 Introduction

Factive predicates are generally taken as one of the canonical classes of presupposition triggers (Beaver and Geurts 2011, many others). The goal of this work is to investigate whether it is the factive verbs themselves that trigger presuppositions, or whether the real trigger is some other element which merely tends to co-occur with a verb of the class traditionally thought of as factive. The two possible analyses are illustrated as (1), the more common assumption (von Stechow 1999, etc.), and (2) the one I will argue for (implied by Kiparsky and Kiparsky 1970, Peterson 1997 but not explicitly defended against the alternative until now).

- (1) a.  $\llbracket \text{regret} \rrbracket = \lambda p \lambda x \lambda w$ . defined iff  $p(w) = 1$ , where defined = 1 iff  $x$  has a negative attitude toward  $p$  in  $w$ .  
b.  $\llbracket \text{that Mary left early} \rrbracket = \lambda w$ . Mary left early in  $w$ .
- (2) a.  $\llbracket \text{regret} \rrbracket = \lambda f \lambda x \lambda w$ .  $x$  has a negative attitude toward  $f$  in  $w$ .  
b.  $\llbracket \text{that Mary left early} \rrbracket = \lambda w$ . defined iff Mary left early in  $w$ ; where defined = the unique fact that Mary left early in  $w$ .

## 2 Basic Data and Framing Assumptions

The family-of-sentences test shows the basic presuppositions associated with factive verbs; the sentences in (3) all presuppose that Mary left early:

- (3) a. John doesn't regret that Mary left early.  
b. Perhaps John regrets that Mary left early.  
c. If John regrets that Mary left early, some ice cream will comfort him.

I also limit attention to the class of factives referred to as true factives by Hooper (1975), and sometimes referred to as strong factives or emotive factives, such as *regret*, *glad*, and *sorry*, and ignore those referred to as semifactives or weak factives, such as *know*.

An important role will be played by a class of expressions known variously as simple subjunctives (Kasper 1992) or implicit conditionals (ICs) (Schueler 2008), the term I will use here. Implicit conditionals are sentences which contain a subjunctive mood marker (*would* in the cases considered here, but also *could*, etc.), but no *if*-clauses in the normal structural position for conditional antecedents, such as (4).

- (4) a. John would hate Paris.  
b. John would hate for Mary to leave.

In the case of ICs, we limit our attention to those which contain factive predicates. I take the judgments to be as follows. Some ICs have no presuppositions at all, and are felicitous in an out-of-the-blue context (as long as the names refer successfully), such as (5).

- (5) a. John would hate a war.
- b. John would hate for Mary to leave.
- c. John would regret Mary leaving early.

Others, such as (6) (though there is dialectal variation on the type in (6c)), impose requirements on their context of utterance in order to be felicitous.

- (6) a. John would hate the war.
- b. John would hate that Mary left early.
- c. John would regret Mary's leaving early.

In order for the sentences in (6) to be felicitous, they require a previously specified hypothetical circumstance; that is, they require modal subordination (Roberts 1989). That is, sometimes presuppositions can be filtered by a hypothetical modal base previously introduced (7).

- (7) a. There might have been a king of France. The/that king of France would be bald.
- b. There might be a war. John would regret the war.

But the sentence out of the blue sounds strange or incomplete (6), as crucially contrasted with (5).

### **3 implicit Conditionals and Factive predicates**

If the presuppositionality associated with factive predicates came from the predicates themselves, then we would expect propositional clause-types to behave uniformly with respect to IC vs. non-IC constructions as concerns their degree of presuppositionality. However, this is not the case: difference clauses give different effects when it comes to ICs. Note that the judgments here are given for an out-of-the-blue context; # here means "strange without a prior modal-subordination context." We classify the two types of complements to factive verbs as weak clauses and strong clauses, as follows:

#### **Weak Clauses: Only presuppositional in a non-IC context.**

- (8) a. John would regret Mary leaving early. — Acc-Ing
- b. John would regret leaving early. — PRO-Ing
- c. John would regret the destruction of that city. — Nominalization
- d. John would hate (for Mary) to leave early. — Infinitival.
- e. #John regrets Mary leaving early. — Acc-Ing
- f. #John regrets leaving early. — PRO-Ing
- g. #John regrets the destruction of that city. — Nominalization

h. #John hated to leave.<sup>1</sup> — Infinitival

### Strong Clauses: Presuppositional Everywhere.

- (9) a. #John would regret that Mary left early. — Finite Clause  
b. #John would regret Mary's leaving early. — Poss-Ing  
c. #John would regret the war. — Definite DP  
d. #John regrets that Mary left early. — Finite Clause  
e. #John regrets Mary's leaving early. — Poss-Ing  
f. #John regrets the war. — Definite DP

I argue that the best explanation available of the # judgments in (9a-c) is that the clauses themselves are contributing presuppositions which require a modal subordination context to filter. (See van Rooij 2005 for more discussion of the connection between presupposition and modal subordination.) Since we know that a factive verb in an IC frame does not itself have presuppositions (8a-d), the presuppositions in (9a-c) can't be coming from that factive verb. And given that factive verbs sometimes do not contribute presuppositions, the simplest hypothesis becomes that they never do; the presuppositions associated with factive verbs are always due to the complements of those verbs, and not the verbs themselves.

One might object that there could be an alternative explanation of the judgments in (9a-c) that didn't require presuppositionality at all, but some other reason for the failure of filtering. For example, perhaps it is solely due to the fact that weak clauses can be mapped into their own understood conditional antecedents (e.g. "if Mary left" for 8a)), while strong clauses could not. However, it is unclear what would else besides presuppositionality could cause this difference, given the that, for example, there is systematic categorial difference between weak and strong clauses; finite clauses and infinitivals are both CPs, and Acc-Ing and Poss-Ing are both DPs (Abney 1987). Furthermore, the parallel behavior between strong clauses and definites (9f) suggests that presuppositionality is the very reason for this difference.

## 4 Implementation

Of course, not all *that*-clauses are presuppositional. I propose, following Kratzer 2006, that there are at least two *that*'s, one introducing propositional clauses (11) and another introducing factive clauses (12). Factive verbs (of the emotive type) s-select for arguments that denote facts, which are ontologically distinct from propositions or events (Peterson 1997) (10). Factive verbs cannot s-select propositional *that*-clauses, only factive *that*-clauses, which explains their typical presuppositional behavior

(10)  $[[\text{regret}]] = \lambda f \lambda x \lambda w. x \text{ has a negative attitude toward } f.$

(11)  $[[\text{that}_P \text{ TP}]]^w = [[\text{TP}]]^w$

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<sup>1</sup> For independent reasons (see Pesetsky 1991, Pesetsky and Torrego 2001), infinitivals in non-ICs (realis contexts) cannot take overt subjects.

- (12) a.  $\llbracket \text{that}_F \text{TP} \rrbracket^w = \lambda f. \text{fact-that}(f, \llbracket \text{TP} \rrbracket, w)$ ,  
 b. For a fact  $f'$ , a proposition  $p'$ , a world  $w'$ ,  $\text{fact-that}(f', p', w')$  iff<sub>def</sub>  $f'$  makes  $p'$  true in  $w'$

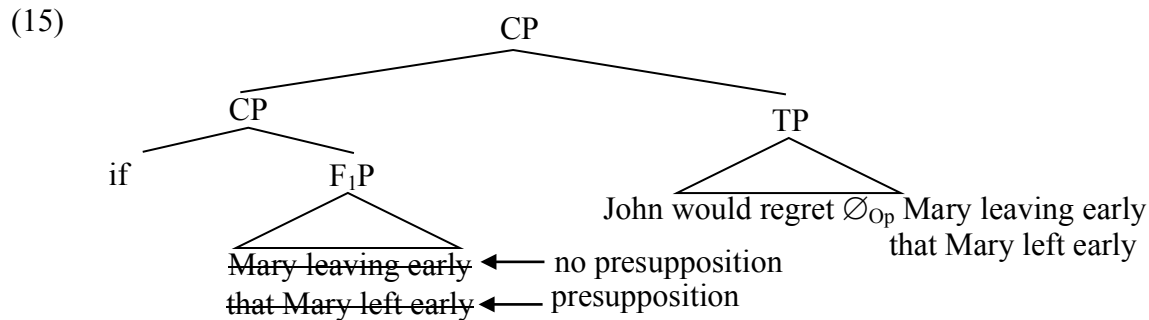
We have not yet explained why it is only in ICs that the weak clauses lack presuppositions when combined with a factive predicate; otherwise, the presuppositions remain (8a-d, 13). Given my claim that presuppositions from factivity come solely from the clause, this means that weak clause-types are optionally factive, while strong ones are obligatorily so.

- (13) a. Perhaps John regrets Mary leaving early. — Acc-Ing  
 b. Perhaps John regrets leaving early. — PRO-Ing  
 c. Perhaps John regrets the destruction of that city. — Nominalization

I propose that weak clauses like Acc-Ing inherently denote (nonpresuppositional) properties of facts (14a), but in order to appear as arguments of factive verbs, they must be coerced by a definite operator into denoting a single fact (14c).

- (14) a.  $\llbracket \text{Mary leaving early} \rrbracket^w = \lambda f. \text{fact-that}(f, [\lambda w'. \text{Mary left early in } w'], w)$   
 b.  $\llbracket \text{John [regrets } [\emptyset_{Op} \text{ Mary leaving early}] \rrbracket$   
 c.  $\llbracket \emptyset_{Op} \rrbracket = \lambda P. \lambda f. P(f)$

This brings us back to the question of how weak clauses can be nonpresuppositional in ICs (while finite clauses still cannot). This is because, after being s-selected by the verb, the content of the original property denoted by the weak clause can be construed as the understood antecedent of the conditional, and hence filter the presuppositions triggered by the operator (14c) But if a factive finite clause is so construed, it will bring its presuppositions along to the antecedent, so that such a sentence will still be predicted to be presuppositional.



## 5 Conclusion

We have shown that if we assume the complements of factive attitude verbs have presuppositional semantics, but that of the attitude verbs themselves, do not, we can obtain a parsimonious treatment of the behavior of various clause types in implicit conditionals and in non-conditional sentences. The conclusion argued for here may have far-reaching ramifications for the nature of presuppositions, leading to a characterization of which types linguistic elements trigger presuppositions and which don't.

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