Still as an additive particle in subjunctive conditionals

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The interaction of the particle ‘still’ with modal environments is known to be problematic [5], but its behavior in counterfactual conditionals remains largely unstudied. This paper shows that ‘still’ can function as an additive particle in counterfactual contexts. A unified analysis is given for regular aspectual ‘still’, semifactuals, and a third use of ‘still’ newly introduced here. The common semantic core of ‘still’ is a dependency on a salient eventuality. The scope of ‘still’ and the modal operator determine whether this dependency is w.r.t. times or w.r.t. worlds. This work thus helps to understand how event dependencies can exist across possible worlds (cf. [8]).

1. Data

Three uses of ‘still’ in the consequent of a counterfactual conditional are given below:

(1) [This afternoon it was raining, and Mary left the office at 4pm.]
   [uttered at 6pm]: If it hadn’t been raining, she would still have been here now. [INTERNAL]

(2) (Even) if John had worn his seatbelt, he would still have been injured. [SEMIFACTUAL]

(3) [Mary studied at MIT, and she now works on organic chemistry]
   If she had gone to Harvard, she would still have worked on organic chemistry. [EXTERNAL]

(1–3) appear to have the same surface structure, but in fact illustrate an important and unexplored contrast. One difference relates to counterfactuality: in (1), Mary is not at the office now, and ‘still’ conveys that under some hypothetical condition her presence would have continued. In (2) and (3), the consequent is true in the context (John did get injured; Mary does work on organic chemistry). This intuition can be further diagnosed by observing that in (2)/(3) ‘still’ may be replaced by ‘also’ without changing the meaning, but not in (1). A second difference is that ‘still’ in (1) and (2) can be left out (with a possible meaning change, but it remains a good sentence), but not in (3) (doing so would elicit a response ‘Wait a minute! She DOES work on organic chemistry.’).

I argue that (1) is the straightforward case in which ‘still’ is embedded inside the consequent, i.e. “[if p], would [stillasp q]”. As for (2) and (3), I argue that ‘still’ takes wide scope over the conditional, and behaves like an additive particle that adds different conditions for the consequent (different conditions for John’s injury, or for Mary’s working on organic chemistry).

2. Internal ‘still’

In (1), aspectual ‘still’ is embedded inside the consequent of the conditional. The standard event-based semantics [6, 10] of aspectual ‘still’ has the problem that it does not depend on the world of evaluation, so when ‘stillasp’ appears inside a modal context (such as a conditional), the quantification over worlds is vacuous. I fix this shortcoming by introducing world-dependency both in the predicate P, and in the eventuality argument e:

(4) \[ \text{stillasp } e_1 \]^{\text{g},w} is defined iff \( \exists s < w & \[ e_1 \]^{\text{g},w}(s) = 1 \), and \( \exists t' < t. \[ P \]^{w}(e_1, t') = 1 \).

When defined, it is true of a time t and a VP P iff \( \[ P \]^{w}(e_1, t) = 1 \). (my revision of [10])

Unlike [10], I assume that the salient eventuality in (4) is provided by an event pronoun (written \( e_1 \)) in the sense of [2], which builds on a Lewisian view of events as spatio-temporal regions of worlds [12]. The import of the event pronoun is that it introduces a presupposition that the denoted event exists in the world of evaluation, formally \( \exists s < w & \[ e_1 \]^{g,w}(s) = 1 \) (from [2, p. 239]). When ‘stillasp’ is in the scope of a modal operator, it now requires that the event \( e_1 \) exists in all worlds quantified over (written MB here). The relevant presuppositions of (1) now compute to:

(5) i. \( \forall w' \in MB : \exists s < w' & \[ e_1 \]^{g,w'}(s) = 1 \) [i.e., \( e_1 \) exists in each \( w' \in MB \)]
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ii. \(e_1\) is an eventuality of Mary being at the office in \(w\) at \(t' < t\)

The revised version of ‘still\(_{ap}\)’ in (4) also provides a precise analysis of [5]’s case of \textit{At that point, I could still have won the race}, by applying ‘still\(_{ap}\)’ to the modal state of being able to win the race.

3. Semifactual and external ‘still’

(2) is an example of a semifactual, a type of conditional characterized by factivity of the consequent, and the lack of a causal relationship between antecedent and consequent ([3, 4, 7], etc.). My novel case of external ‘still’ in (3) is different from (2) for two reasons: first, (2) expresses that John would have been injured \textit{no matter what}, but (3) does not express that Mary would have worked on organic chemistry no matter what (only if she studied at MIT or Harvard). Second, there is a likeliness ordering involved in (2), but not in (3).

I argue that in both (2) and (3), ‘still’ behaves like an additive particle, focus-associating with the antecedent. The initial plausibility for this approach comes from inspecting the meaning of (2) and (3): in both of them, ‘still’ serves to add a second condition to an existing one for the truth of the consequent (wearing a seatbelt to not wearing one, and going to Harvard to going to MIT, respectively). This is further supported by the substitutivity of ‘still’ with ‘also’ in (2) and (3). Phonetic analysis supports F-marking on the antecedent (cf. the role of focus in semifactuals; [7]). Moreover, there is both psycholinguistic and cross-linguistic evidence that semifactuals often contain a purely additive particle [7, 13]. Finally, the dependency on a salient eventuality of ‘still’ is similar to the dependency of a presupposed alternative of (canonical) additive particles.

(6) \(\langle \text{still}_{add} e_1 \mid \text{if } p_F, \text{ would } q \rangle\)^c\(_{g, w}\) is defined iff \(\exists s \in w \& \|e_1\|^{c\(_{g, w}\)}(s) = 1\), and \(e_1\) is true of a distinct alternative to \(p\). If defined, it asserts ‘if \(p\), would \(q\)’.

The first definedness condition is the same as in (4), the second one is the additive presupposition with the antecedent \(p\) as associate. We thus find a ‘temporal’ (= (4)) and a ‘modal’ (= (6)) version of ‘still’, the latter only appearing in counterfactuals, reminiscent of the temporal and modal versions of past tense in the analysis of counterfactuals [9].

Because ‘still’ takes wide scope over the conditional (as opposed to (1)), \(e_1\) is required to exist in the actual world, which explains why in (2/3) ‘still’ in a counterfactual context presupposes an event in the actual world (if Mary never worked on organic chemistry, (3) is indeed infelicitous).

The difference between (2) and (3) is whether or not the salient and asserted conditions exhaust the set of worlds. As has been proposed in earlier literature, the joint exhaustivity of ‘wearing a seatbelt’ and ‘not wearing a seatbelt’ explains the factivity of the semifactual (explained in different ways in [7] and [10]). In (3), however, ‘going to MIT’ and ‘going to Harvard’ do not exhaust all possibilities: there are many other places Mary could have gone, and she might not have worked on organic chemistry in those cases. Hence, there is no no-matter-what interpretation in (3).

There is disagreement in the literature whether semifactual properties are contributed by ‘even’ or by ‘still’. I argue, contra [10], that the likeliness component is contributed not by ‘still’ but by ‘even’ (the normal scalar meaning of that particle). My analysis suggests an answer to the open problem why ‘even’ and ‘still’ may both occur in a semifactual: they both have an additive meaning. When only ‘still’ is present, I claim that the conditional is not a true semifactual (as is sometimes claimed, [10, fn. 4]), but rather an instance of my external ‘still’.

Finally, recall that ‘still’ is obligatorily present in (3). This is directly parallel to the behavior of obligatory additive particles in non-conditional contexts [1, 11, 14, 15]:

(7) Q: Where do John and Mary live?
A: John\(_{CT}\) lives in New York\(_{F}\), and Mary\(_{CT}\) lives in New York *(too)*.
References


