The meaning of would and would have in conditionals

Recent research has shed new light on a striking distinction within the domain of subjunctive conditionals, where morphological differences correlate with differences in felicity conditions. While two passtext are required in order to talk about a past hypothetical situation, a future subjunctive conditional can either have one past or two pasts, as shown in (1). We will label the first type Simple Past Future Subjunctive Conditionals (SPFSC) and the second type Past Perfect Future Subjunctive conditional (PPFSC). (2) shows that the different tense morphology correlates with different felicity conditions: intuitively, PPFSC can be more counterfactual than SPFSC.

The attempts to explain the semantic and pragmatic differences between SPFSCs and PPFSCs in light of their different tense morphology have not been entirely successful (cf. Ogihara (2002), Ippolito (2002,2006), Arregui (2005)). Consider Arregui (2005). On the basis of her examples (3), (4), (5), she claims that (i) simple past SCs with eventive predicates cannot be counterfactual (cf. (4-b)); (ii) simple past SCs with stative predicates can be counterfactual (cf. (5)); (iii) past perfect SCs can always be counterfactual regardless of the type of predicate in the antecedent (cf. (4-a)). On the basis of this generalization, she proposes that (i) simple past SCs have a deictic perfective head, whereas past perfect SCs have a non-deictic perfect head. Because of the deictic nature of the perfective, the antecedent in (4-b) is about the salient event of your plants dying: however, in the context of (4), this event already happened and, because Arregui assumes that temporal properties of events are essential to the event, there is no accessible possible world where that event of your plants dying happens next week. Therefore, the conditional is vacuously true. On the other hand, following Katz (1995), she claims that, because stative predicates do not contain state/events variables to begin with, no conflict arises in (5). Similarly, since the perfect operator is not a deictic head, no conflict arises in (4-a).

I find this interesting analysis problematic for the following reasons. First, the essential nature of the temporal properties of an event is far from being uncontroversial. Take the discourse Yesterday, John’s run lasted thirty minutes. If it/that run had lasted any longer, he would have been out of breath: if temporal properties were essential, conditional sentences with pronouns and indexical expressions, would have to be either vacuously true or would have to mean something radically different from what we think they mean. Second, there are at least some cases where the event variable is plausibly ∃-bound (e.g. Q: How is Mary doing? A: John died, and she remarried). This suggests that even in the presence of a perfective head, the event variable can be bound. But if so, why is this option never available in conditionals? Third, and more importantly, there are counterexamples to Arregui’s generalization: on the one hand, (6-b) shows that sometimes even stative SCs cannot be counterfactual; on the other hand, (7-a) shows that sometimes even eventive SCs can be counterfactual. Therefore, whether a SC can be counterfactual or not does not seem to correlate with the eventive or stative nature of the predicate in the antecedent.

The correct generalization has to do not with the nature of the predicate in the antecedent but with the satisfaction of (at least some of) its presuppositions. Assuming with Musan (1997) that most predicates presuppose that their subject exists at the time of predication, (7) shows that SPFSCs and PPFSCs differ not with respect to the counterfactuality of the antecedent per se, but with respect to the counterfactuality of their presuppositions: while both SPFSCs and PPFSCs can have counterfactual antecedents, only PPFSCs can have counterfactual presuppositions.

I argue that these differences follow from the temporal structure that embeds a “bare” conditional sentence: a simple past in SPFSCs and a past perfect in PPFSCs. The SPFSC in (7-a) has this logical form: \( [S \text{PAST}_1[S \text{WOLL}[S \text{SIM}[S \text{HIST}_1[S \text{John will play tomorrow]})]_1[S \text{his team will win}]]) \) (WOLL=modal operator, HIST=time-dependent historical accessibility function, SIM=similarity function). Now, assuming a referential analysis of tense, there are two conditions that \( g(1) \) (the value that the assignment function g assigns to the index 1) needs to satisfy: (i) \( g(1) < t_c \); (ii) it was a historical issue at \( g(1) \) whether the antecedent will be true. What does it mean to say that \( \varphi \) is a historical issue in \( w \) at time \( t \)? Where (i) \( H \) is the set of worlds historically accessible from \( w \) at \( t \) closest to the actual world and (ii) \( H \) is compatible with both \( \varphi \) and \( \neg \varphi \): \( \varphi \) is a historical issue in \( w \) at \( t \) just in case for every world \( w' \in A, \varphi \) is either true or false in \( w' \). (8) shows the truth conditions for our SPFSC.

Let’s look at the data. Why is (7-b) infelicitous? (7-b) is defined if \( t_1 < t_c \) and there is a world \( w \) such that whether John will play tomorrow is a historical issue in \( w \) at \( t_1 \). Let us suppose that \( w \) is \( w_c \) and \( t_1 \) is the
time immediately before the time when John broke his legs. Besides \( w_c \) itself, the worlds closest to \( w_c \) are worlds where John didn’t die and will play, and worlds where he didn’t die and will not play: this is because, even though they differ with respect to whether John died, they are otherwise just like \( w_c \) (see Lewis (1979)). The problem is that this set does not satisfy the historical issue condition: there is a world, i.e. \( w_c \), where it is neither true nor false that John will play tomorrow, because the existence presupposition is not satisfied. Therefore, the historical issue condition is not satisfied and the conditional is infelicitous. Note that there are times after \( t_1 \) and before \( t_c \) that would satisfy the historical issue requirement: the problem, though, is that, if any of these times is chosen, the conditional will be vacuously true because at these times antecedent-worlds are no longer accessible from \( w_c \).

Why is (7-a) felicitous? Suppose again that \( w \) is \( w_c \) and \( t_1 \) is the time immediately before John broke his legs. Again, besides \( w_c \) itself, the worlds closest to \( w_c \) are worlds where John didn’t break his legs and played and worlds where he didn’t break his legs but didn’t play. Is the historical issue condition met with respect to this set of worlds? Yes, because each world in this set is such that it is either true or false that John will play tomorrow (since in all these worlds John is alive). The contrast in (6) is explained exactly along the same lines.

Now take the PPFSC in (7-c), whose logical form is: \([S \ PAST_1[S \ PAST_2[S \ WOLL[ SIM [HIST_2[S \ John will play tomorrow]]]] [S his team will win]]]\). The truth conditions are given in (9). Recall our dilemma: (i) if \( t_1 \) is the time immediately before John died, then \( t_1 \) does not satisfy the historical issue condition; (ii) if \( t_1 \) is a time later than (but before \( t_c \)), the conditional is vacuously true, since antecedent-worlds are no longer accessible from \( w_c \) at that time. The second past (\( PAST_2 \)) rescues the conditional: \( t_1 \) is still the time required to satisfy the historical issue condition, but the set of worlds quantified over by the modal is a subset of the set of worlds accessible at a time \( t_2 \) before \( t_1 \). Since there is a time before \( t_1 \) when worlds where John will play tomorrow were accessible from \( w_c \) (i.e. a time immediately before John died), the conditional is not vacuously true and therefore is felicitous.

**Examples**

1. a. **SPFSC**: If John played the last game tomorrow, his team would win.
   b. **PPFSC**: If John had played the last game tomorrow, his team would have won.

2. John’s team played the last game yesterday. The weather was terrible and they lost. Tomorrow the weather is expected to be beautiful.
   a. #If they played the last game tomorrow, they would win.
   b. If they had played the last game tomorrow, they would have won.

3. Could you look after my plants next week while I am away?
   B: Of course, but I am rather nervous. If your plants died next week, I would be very upset.

4. a. B: I am sorry, but also a bit relieved. If your plants had died next week, I would have been very upset.
   b. B’: I am sorry, but also a bit relieved. #If your plants died next week, I would be very upset.

5. Your plants do not have enough light. If they had enough light, they would be fine.

6. a. John is not in love with Mary. If he were in love with Mary, he would marry her.
   b. #John is dead. If he were in love with Mary, he would marry her.

7. a. John broke his legs and he is not going to play tomorrow. Too bad. If he played, his team would win.
   b. John is dead. Too bad. #If he played tomorrow, his team would win.
   c. John is dead. Too bad. If he had played tomorrow, his team would have won.

8. Where (i) \( t_1 < t_c \) and (ii) there is a w.s.t. is a historical issue in \( w \) at \( t_1 \) whether John will play the last game tomorrow: \([S PAST_1[S WOLL[ SIM [HIST_1[S John will play tomorrow]]]] [S his team will win]]\)\(^{a,c} \)
   \[= 1 \text{ if } \forall w'' \in SIM_{w_c}(HIST_{w_c, t_1}) \land \text{John will play tomorrow in } w'' : \text{his team will win in } w'' \]

9. Where (i) \( t_1 < t_c \) and (ii) there is a w.s.t. is a historical issue in \( w \) at \( t_1 \) whether John will play tomorrow: \([S PAST_1[S PAST_2[S WOLL[ SIM [HIST_1[S John will play tomorrow]]]] [S his team will win]]\)\(^{a,c} \)
   \[= 1 \text{ if } \exists t_2 < t_1 \forall w'' \in SIM_{w_c}(HIST_{w_c, t_2}) \land \text{John will play tomorrow in } w'' : \text{his team will win in } w'' \]