Not that "fake" - Adults interpret the present counterfactual's "fake" past tense as real

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Counterfactual constructions such as the present counterfactual conditional (1a) express alternatives that are contrary to the actual state of affairs (cats do not have wings). The past morphology ("**had**") in such constructions is sometimes called "fake"[1], since the construction refers to an alternative state in the present. To refer to an alternative state in the past, one should use the past counterfactual construction (1b), where the past perfect expresses one layer of past temporal orientation and one layer of "fake" counterfactual past.

(1) a. If cats **had** wings, the human race would have become extinct due to flying tigers

b. If tyrannosauruses **had had** telescopes, they wouldn't have gone extinct.

In practice however, this is not always how adult native speakers of English express counterfactuals about the past. Crutchly[2,3] reported that adults spontaneously produce a wider range of tense combinations in their counterfactual constructions, showing that utterances with simple present in the antecedent (3) can also be used to encode a past counterfactual meaning. Prescriptively, the past perfect (*had taken*; *had lived*) is expected here.

(2) a. if they **took** my wages into consideration they would have let us buy next door even

b. if I **lived** with him first, I would never of married him   (Crutchley, 2013, 15&16)

A small group of adults rating this type of utterance (which accounted for ~15% of spontaneous past CF conditionals) could not agree on the grammaticality of this construction[2]. In the current study, we investigated adult's interpretations of present and past counterfactual utterances. Since spontaneous production can be influenced by speech errors or context, we aimed to test people's intuitions about the meaning of counterfactual utterances in a controlled paradigm, asking the following questions: **1**) Can the present counterfactual convey past counterfactual meaning? **2**) Does the prescriptive rule reflect an older stage of a change-in-progress, and do younger people allow for this interpretation to a greater extent than older people?)

Hypotheses: We hypothesize that the present counterfactual construction can be understood as having past counterfactual meaning by reinterpreting the "fake" past tense marker to indicate past temporal orientation. We hypothesize this to be language change in progress and expect to find a generational effect, where older participants are more conservative than younger ones.

Methods: 50 adults were recruited online via Prolific and divided into 5 equal age groups: 18-28 (M=22.1-years, SD=2.53), 28-38 (M=31.3-years, SD=3.18), 38-48 (M=41.8-years, SD=3.30), 48-58 (M=50.9-years, SD=3.13) and 58-68 (M=63.0-years, SD=3.42). All participants completed an animated referent selection task that was designed for children and hosted on PCIbex Farm[1], to test the interpretation of past and present counterfactual constructions. Three identical characters ("kippies") choose milkshakes from the Milkshake Man. After the kippies pay with a coin of the same flavor as the milkshake they picked, the Milkshake Man produces a target utterance (e.g. "If that kippie had drunk a banana milkshake, he would have given me a banana coin") referring to one of the kippies. Utterances were divided into four main conditions: CONTROL, PAST, PRESENT COUNTERFACTUAL, and PAST COUNTERFACTUAL (Figure 1A). Participants were asked to select the kippie the Milkshake Man is talking about. The three possible referents are compatible with a **Past** (having drunk the mentioned milkshake), **Present Counterfactual** (holding a different milkshake) or **Past Counterfactual** (having drunk a different milkshake) interpretation of the utterance. Participants completed 8 trials (2 per condition) total. Order of presentation was pseudo-randomized and location of possible referents and milkshake flavors was balanced across the experiment. Counterfactuals always mentioned a banana milkshake (to facilitate a counterfactual reading, since the Milkshake Man particularly loves those coins).

Results: We excluded 6 participants for failing control trials. For those remaining (n=44), we

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calculated the percentage of responses per condition and age group (Figure 2). As expected, adults picked the **Past** referent on Past trials, and the **Past CF** referent on Past Counterfactual trials, almost at ceiling. For the Present Counterfactual trials however, participants are split between choosing the **Present** or **Past CF** referent. This split was observed across all age groups. While adults selected more **Past CF** referents for Present Counterfactual wishes than for conditionals, this difference was not significant at the group level, $\chi 2=2.6$, $p=.27$.

Discussion: The results of this study show that the present counterfactual can be interpreted as having a past temporal orientation, corroborating observations from (spontaneous) production[2,3]. Surprisingly, this was the case 50% of the time, and one participant commented sometimes two referents were possible. We found evidence against our hypothesis that this availability of a past tense interpretation is due to language change in progress, reporting the same pattern of results across all 5 age groups. What thus seems to be the case, is that participants can interpret the past tense morpheme in present counterfactuals either as a "fake" past tense, or as a real past tense, which raises questions about semantic accounts that rely on the past tense morpheme to derive counterfactuality[1,4,5] and the necessity of double tense marking in past counterfactuals.
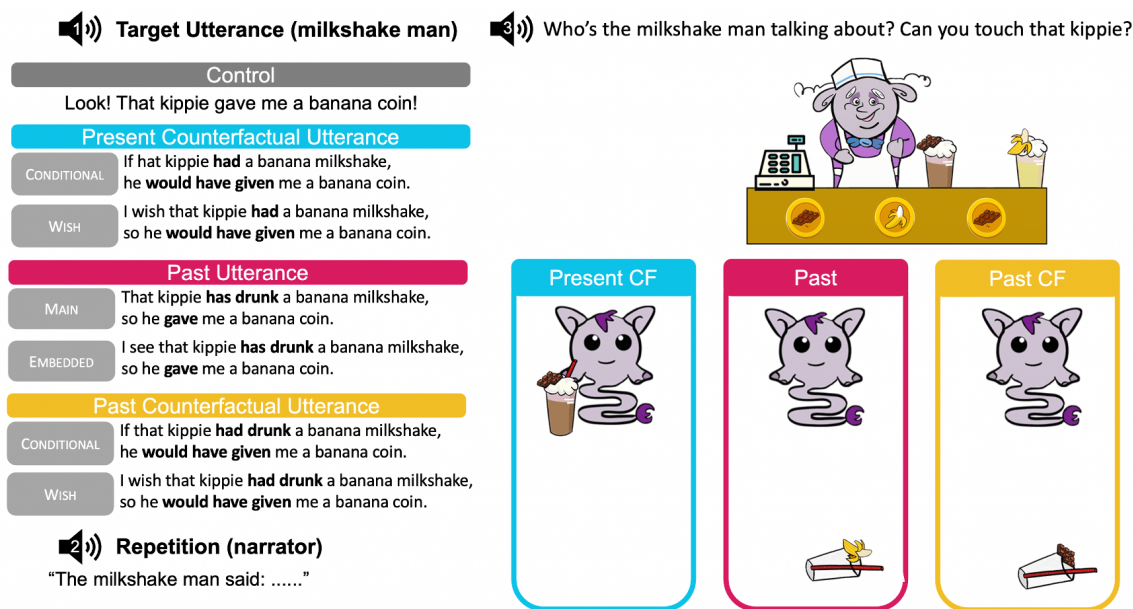
🔊 **Target Utterance (milkshake man)**   🔊 Who's the milkshake man talking about? Can you touch that kippie?

Control
Look! That kippie gave me a banana coin!

Present Counterfactual Utterance

CONDITIONAL — If hat kippie **had** a banana milkshake, he **would have given** me a banana coin.

WISH — I wish that kippie **had** a banana milkshake, so he **would have given** me a banana coin.

Past Utterance

MAIN — That kippie **has drunk** a banana milkshake, so he **gave** me a banana coin.

EMBEDDED — I see that kippie **has drunk** a banana milkshake, so he **gave** me a banana coin.

Past Counterfactual Utterance

CONDITIONAL — If that kippie **had drunk** a banana milkshake, he **would have given** me a banana coin.

WISH — I wish that kippie **had drunk** a banana milkshake, so he **would have given** me a banana coin.

🔊 **Repetition (narrator)**
"The milkshake man said: ......"

Present CF   Past   Past CF

Figure 1. **A.** Target utterances divided per condition. **B.** Task Design showing three possible referents, each corresponding to be the target referent of one of the main utterance conditions.
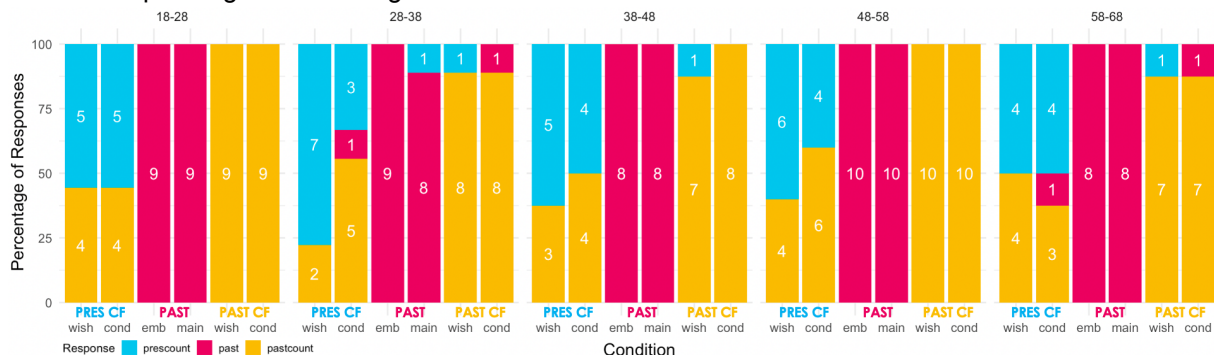

Figure 2. Count and percentage (y-axis) of responses per utterance condition split by age group.

References: [1] Iatridou, S. (2000). [2] Crutchley, A. (2004). [3] Crutchley, A. (2013). [4] Ippolito, M. (2006). [5] Karawani & Zeijlstra (2013).

References: [1] Iatridou, S. (2000). [2] Crutchley, A. (2004). [3] Crutchley, A. (2013). [4] Ippolito, M. (2006). [5] Karawani & Zeijlstra (2013).