Counterfactuality and imperfect

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The Romance imperfect (IPFV) in conditionals has been claimed to obligatorily generate counterfactuality (e.g. Ippolito 2004). Using data from Romanian and Italian, we present a number of counterexamples to this claim. In particular, we show that with narrow focus on the verb, counterfactuality is not present. Building on Fox and Spector 2018 (F&S), we propose that narrow focus on the verb allows the generation of an *anti-counterfactuality* scalar implicature (SI) via embedded exhaustification. This account reduces (anti-)counterfactuality to the better understood interaction between focus and embedded exhaustification and provides support for views of counterfactuality as SI (e.g. Iatridou 2000, Ippolito 2004, Leahy 2011), rather than a presupposition (e.g. Ippolito 2006, Karawani 2014).

<u>Imperfect and counterfactuality.</u> Obligatory counterfactuality (among other things) explains the impossibility to combine the IPFV antecedent with a present/future indicative consequent, compare Romanian (1) with (2). This derives from the long-standing observation that the antecedent of an indicative conditional should be compatible with common grounds (Stalnaker 1975) (thus, *#John is dead. If he stays home tomorrow, he will watch the World Cup*).

(1) Dacă Ion **venea**   mâine   la Bucureşti, Maria **ar**   **fi fost/era**   fericită.
     if   Ion come-IPFV tomorrow at Bucharest Maria COND be been/be-IPFV happy
     'If Ion had come to Bucharest tomorrow, Maria would have been happy.'

(2) #Dacă Ion **venea**   mâine   la Bucureşti, Maria **va**   **fi** fericită.
     if   Ion come-IPFV tomorrow at Bucharest Maria FUT be happy
     Intended: 'If Ion was going to come to Bucharest tomorrow, Maria will be happy.'

Our novel observation is that (2) becomes acceptable with strong pitch accent on the verb in the antecedent, (3). The same holds for Italian.

(3) Dacă Ion **VENEA**$_F$ mâine   la Bucureşti, Maria **va**   **fi** fericită.
     if   Ion come-IPFV tomorrow at Bucharest Maria FUT be happy
     Lit. 'If Ion came to Bucharest tomorrow, Maria will be happy.'

The interpretability of examples like (3) indicates that the counterfactuality inference of the antecedent is absent. The contrast between (2) and (3) cannot be accounted for by any of the existing analyses of counterfactuality in Romance IPFV conditionals.

<u>Proposal.</u> We assume that counterfactuality-related inferences are generated as SIs, e.g. Ippolito 2004, Leahy 2011. It is well known that the scalar item must be focused for an SI to be embedded under a downward-entailing operator (Horn 1989, a.o.). Recently, F&S derive the contrast in (4-a) using an Economy condition on exhaustification (which, roughly speaking, bans exhaustification if it leads to weakening). F&S assign (4-a) the parses in (4-b,c) where focus manipulates the alternatives for *exh*$_1$. Narrow focus on *or* supplies the alternatives in (4-b). A broader focus supplies the alternatives in (4-c) (with at least one additional alternative *d*). Exh_1 in (4-c) leads to weakening and thus, is banned by Economy (therefore, no SI is generated and (4-a) with broad focus is infelicitous).

(4) a. John didn't do the reading #or/✓OR$_F$ the homework. He did both.   (F&S)
     b. exh$_{2\{\neg(p\vee q)\}}$ ($\neg$ exh$_{1\{p\wedge q\}}$ (p *or*$_F$ q))   (derives p $\wedge$ q)
     c. exh$_{2\{\neg(p\vee q)\}}$ ($\neg$ [exh$_{1\{p\wedge q,d\}}$ (p *or* q)]$_F$)   (exh$_1$ is banned by Economy)

We extend this analysis to the conditionals in (2)/(3). Based on Ippolito 2004, IPFV in the antecedent has the implication that the speaker at some past time t_1 before the utterance time t_c did not know that the antecedent is false (abbreviated for our example as '$\neg$ K$_{t1<tc}$ $\neg$ Ion-come'). Unlike Ippolito 2004, we take this implication to be part of the asserted content, rather

than a presupposition. Like other ignorance implications (e.g. in *whatever*-constructions, see von Fintel 2000, Condoravdi 2015), the ignorance implication in IPFV conditionals cannot be targeted by denial and shows a mixed projecting behaviour. We assume the strict conditional semantics in (5) (the ignorance implication is underlined):

(5) $[\![(2)/(3)]\!]^w = 1$ iff Acc(w) $\subseteq$ ($\neg$(Ion-come $\wedge$ $\underline{\neg\ K_{t1<tc}\ \neg\ \text{Ion-come}}$)) $\vee$ Marry-happy

For the antecedent to be compatible with the indicative consequent the ignorance implication should extend to the utterance time t_c. In other words, we need to derive an *anti-counterfactuality SI*: '$\neg\ K_{tc}\ \neg$ Ion-come' (the speaker's knowledge at t_c is compatible with Ion coming). We show that using F&S' mechanism the anti-counterfactuality SI is generated only when there is narrow focus on the verb, (6-b). With the broad focus, exh_1 is banned by Economy and counterfactuality surfaces, (6-c). For expository purposes, in (6-b,c), we omit irrelevant material and show only the ignorance part and its alternatives.

(6)   a.   'if Ion #came/✓CAME$_F$ to Bucharest, Mary will be happy.'   (= (2) and (3))
        b. $exh_{2\{\neg\ (...\neg K_{t1<tc}\ \neg Ion-come)...\}}$ ($\neg\ exh_{1\{(...\neg K_{tc}\ \neg Ion-come)...\}}$ (... $\neg\ K_{t1<tc}\ \neg$ Ion-come)...)
             (narrow focus on 'CAME'; derives $\neg\ K_{tc}\ \neg$ Ion-come = anti-counterfactuality SI; therefore, fine with the indicative consequent)
        c. $exh_{2\{\neg\ (...\neg K_{t1<tc}\ \neg Ion-come)...\}}$ ($\neg\ exh_{1\{(...\neg K_{tc}\ \neg Ion-come)...,d\}}$ (.. $\neg\ K_{t1<tc}\ \neg$ Ion-come)..)
             (broad focus, thus at least one additional alternative; exh_1 is weakening, thus banned by Economy; derives counterfactuality, thus infelicitous with indicative)

Our proposal correctly predicts that in Romanian the same 'rescuing' effect as in (3) can be achieved when scalar particles like *şi* 'also/even' and (for some speakers) *mai* 'still' are used in the antecedent (but not consequent) of the conditional:

(7)   Dacă Ion **şi**   venea$_F$ la Bucureşti mâine,   Maria va fi fericită.
        if   Ion also/even come-IPFV at Bucharest tomorrow Mary FUT be happy
        'If it's still the case that Ion was coming to Bucharest tomorrow, Maria will be happy.'

(8)   %Dacă Ion **mai** era$_F$ mâine   acasă, se va uita la Cupa   Mondială.
        if   Ion still be-IPFV tomorrow home, SE FUT look at Cup.the World
        'If it is still the plan for Ion to be home tomorrow, he will watch the World Cup.'

We show that non-rescuing by the Italian 'even' is explained by its independent properties:

(9)   #Se Gianni era   anche a casa domani,   guarderà   la Coppa del   Mondo.
        if Gianni be-IPFV even   at home tomorrow, watch-FUT the cup   the-GEN world
        Intended: 'If there is still the plan that Gianni is at home tomorrow, he will watch the World Cup.'

Selected references von Fintel, Kai. 2000. Whatever. In Proceedings of SALT X, ed. Brendan Jackson and Tanya Matthews, 27–39. Ithaca, NY: Cornell University. Fox, Danny, and Benjamin Spector. 2018. Economy and embedded exhaustification. Natural Language Semantics 26:1–50. Horn, Lawrence R. 1989. A natural history of negation. Chicago: The University of Chicago Press. Iatridou, Sabine. 2000. The grammatical ingredients of counterfactuality. Linguistic Inquiry 31:231–270. Ippolito, Michela. 2004. Imperfect modality. In The syntax of time, ed. Jacqueline Gueron and Jacqueline Lecarm, 359–389. Cambridge MA: MIT Press. Ippolito, Michela. 2006. Semantic composition and presupposition projection in subjunctive conditionals. Linguistics and Philosophy 29:631–672. Karawani, Hadil. 2014. The real, the fake, and the fake fake in counterfactual conditionals, crosslinguistically. Doctoral Dissertation, Universiteit van Amsterdam. Leahy, Brian. 2011. Presuppositions and antipresuppositions in conditionals. Proceedings of SALT 21 257–274. Stalnaker, Robert. 1975. Indicative conditionals. Philosophia 5:269–286.