

## Counterfactuality is not obligatory!

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It has been claimed in the literature that when the Romance modal imperfect is used in conditionals, it obligatorily gives rise to counterfactuality (e.g. Ippolito 2004, 2006). Using data from Romanian, we present some counterexamples to this claim. Although in simple cases, the Romanian modal imperfect is interpreted counterfactually in conditionals, when focus or focus sensitive particles like *și* ‘also/even’ are added, counterfactuality disappears. We account for this observation by proposing that i) *și* ‘also/even’ scopes over the entire conditional and ii) its existential presupposition affirms the ‘true-at-the-present’ alternative, thus preventing the generation of counterfactuality.

**Background** The Romance imperfect is a remarkably versatile category. It has both indicative, (1), as well as modal uses, (2), e.g. Bazzanella 1990, Giorgi and Pianesi 1997, 2001, Ippolito 2004, a.o. Note the use of the future adverbial in (2), as opposed to (1).

- (1) *Indicative use of imperfect*  
Ieri/\*mâine la ora trei Ion **scria** o scrisoare.  
yesterday/tomorrow at hour.the three Ion write-IPF a letter  
‘Ion was writing a letter yesterday at 3 pm.’
- (2) *Modal use of imperfect (hypothetical)*  
Dacă **era** mâine acasă, ne **invita** la el.  
if be-IPF tomorrow home, us invite-IPF at him  
‘If he had been home tomorrow, he would have invited us over.’

**The puzzle** When the imperfect is used in conditionals, as in (2), it is claimed to have an obligatory counterfactual interpretation (Ippolito 2004, 2006). The obligatory counterfactuality explains the impossibility to combine the imperfect antecedent with a present/future indicative consequent, cf. (3) with (4). 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*).

- (3) Dacă Ion **venea** mâine la București, Maria **ar fi fost/era** fericită.  
if Ion come-IPF tomorrow at Bucharest Maria COND be been/be-IPF happy  
‘If Ion had come to Bucharest tomorrow, Maria would have been happy.’
- (4) \*Dacă Ion **venea** mâine la București, Maria va fi fericită.  
if Ion come-IPF tomorrow at Bucharest Maria FUT be happy  
Intended: ‘If Ion was going to come to Bucharest tomorrow, Maria will be happy.’

However, while (4) is ill-formed, once the antecedent contains *și* ‘also/even’ or strong contrastive focus, the same configuration becomes acceptable. Compare (4) with (5-a) and (5-b):

- (5) a. Dacă Ion **și** [**venea**]<sub>F</sub> la București mâine, Maria va fi fericită.  
if Ion also/even come-IPF at Bucharest tomorrow Mary FUT be happy  
‘If it’s still the case that Ion was coming to Bucharest tomorrow, Maria will be happy.’
- b. (Ei,) dacă Ion [**venea**]<sub>F</sub> la București mâine, Maria va fi fericită.  
well if Ion come-IPF at Bucharest tomorrow Mary FUT be happy  
‘Well, if it is the case that Ion was coming to Bucharest tomorrow, Maria will be happy.’

**Previous accounts** We follow Ippolito 2004, 2006 in assuming the LF representation in (6-b) for an imperfect conditional as in (6-a). The core idea of these accounts is that the PAST operator scopes over the modal relativizing the accessibility relation (Acc) to some salient time in the past. (6-a), thus, receives the simplified truth-conditions in (6-c) (relativization to the past is underlined).

- (6) a. Dacă Ion **venea** la București, Maria ar fi fost fericită.  
b. [ PAST [ WOLL [ Acc<sub>t,w@</sub> [ Ion come to B. ] ] [ Mary be happy ] ] ] (simplified)  
c.  $\exists t_1 < t_c [\forall w [ w \text{ is accessible from } w@ \text{ at } t_1 \wedge \text{ Ion come to B. in } w \rightarrow \text{ Mary be happy in } w ] ]$   
In words: there is some past time  $t_1$  (prior to the utterance time  $t_c$ ) such that in all worlds  $w$

accessible from the world of evaluation  $w@$  at this past time  $t_1$  where Ion come to B., Mary is happy

Consider two previous strategies to derive counterfactuality: 1. Ippolito 2004 proposes that sentences such as (6-a) come with a felicity condition, as in (7-a), requiring that the speaker didn't know at  $t_1$  that the antecedent was false. Imperfect conditionals compete with indicative conditionals, which have the felicity condition in (7-b). Under the assumption that knowledge can only grow, the entailment relation in (8) holds; this permits strengthening of the presupposition in the imperfect conditional via Neo-Gricean reasoning, deriving counterfactuality, as shown in (9).

- (7) a. *Felicity condition for the imperfect conditional in (6-a)*: At  $t_1$  ( $t_1$  = some past time), the speaker does not know that the proposition expressed by the antecedent is false.  
 abbr:  $\neg K \neg p$  at  $t_1 < t_c$
- b. *Felicity condition for indicative conditionals*: At  $t_c$  ( $t_c$  = the utterance time), the speaker does not know that the proposition expressed by the antecedent is false.  
 abbr:  $\neg K \neg p$  at  $t_c$
- (8) a.  $\neg K \neg p$  at  $t_c \Rightarrow \neg K \neg p$  at  $t_1 < t_c$ ; b.  $\neg K \neg p$  at  $t_c \not\Leftarrow \neg K \neg p$  at  $t_1 < t_c$
- (9) *Deriving counter-factuality*
- a. Psp of the antecedent in (6-a):  $\neg K \neg p$  at  $t_1 < t_c$
- b. Psp<sup>str</sup> of the antecedent in (6-a):  $\neg K \neg p$  at  $t_1 < t_c \wedge K \neg p$  at  $t_c$
- c. In words: at some point in the past, the speaker thought that there is a possibility for Ion to come to B. tomorrow, but now she knows that Ion will not come to B. tomorrow

2. In Ippolito 2006, counterfactuality is built in directly into the meaning of the PAST operator as a presupposition. Neither of these two strategies can directly account for the puzzle presented here.

**Proposal** While strategy 2 cannot be salvaged, we propose that strategy 1 can derive the facts, but with additional adjustments. To account for the Romanian facts, we propose: i) *Și* can take logical scope higher than operators that c-command its surface position as shown in (10). ii) Focus on the verb with its tense morphology introduces tense alternatives {PAST, PRES} (Sauerland 2008). As tense morphology scopes above the modal we have the following two alternatives in (11). Note that the PRES alternative affirms that the possibility of Ion coming to Bucharest still holds at the present.

(10) [ ALSO [ PAST [ WOLL [ Acc<sub>t,w@</sub> [ Ion come to B. ] ] [ Mary be happy ] ] ] ]

(11) ALT: { [  $\exists t_1 < t_c [\forall w [ w \text{ is accessible from } w@ \text{ at } t_1 \wedge \text{Ion come to B. in } w \rightarrow \text{Mary be happy in } w ] ]$  ]; [  $\forall w [ w \text{ is accessible from } w@ \text{ at } t_c \wedge \text{Ion come to B. in } w \rightarrow \text{Mary be happy in } w ] ]$  }

As there are only two alternatives, the existential presupposition of the additive particle *și* 'also/even', (12), affirms that the 'true-at-the-present' alternative must be satisfied by the common ground. In other words, the presence of focus and *și* ensures that the accessibility relation established at some past time still holds at the present. Therefore, the scalar implicature that derives counterfactuality cannot be generated. We propose a similar treatment for cases in which contrastive focus is not accompanied by *și*.

(12)  $[[ALSO]] = \lambda w. \lambda ALT. \lambda p. \exists q [ALT(p) \wedge q \neq p \wedge q(w)=1]. p(w)=1$

Interesting support for our proposal comes from the observation that for some Romanian speakers the imperfect conditional with the present/future consequent is saved by the addition of *mai* 'still' (13):

- (13) %Dacă Ion \*(**mai**) era mâine acasă, se va uita la Cupa Mondială.  
 if Ion still be-IPF 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 account for this observation using Beck's 2016 analysis of *still*-like operators as having high scope. Our proposal aligns with a family of recent analyses under which scalar and focus particles take wide scope above the operators that c-command them (Beck 2016 for *still*, Kilbourn-Ceron 2015 for *almost*, Sauerland and Yatsushiro 2017 for *again*, Iatridou and Tatevosov 2016 for *even*, a.o.).