

Testing lexical and pragmatic factors of ‘conditional perfection’ on its analyses

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Conditional perfection (CP) refers to the phenomenon where a bare conditional (i.e., *if p, q*) receives a bi-conditional (*iff*) interpretation [3]. Different accounts cite different “invited” **Pragmatic Inferences (PIs)**, as shown in (1), range from **PI(i)** ‘denying the antecedent’ (not-P) or **PI(ii)** ‘exhaustification’ (only) to **PI(iii)** — a weaker version of conditional strengthening [5, 7, 8]. Furthermore, it has been shown that the extent of CP is subject (dis)favoring factors. The **Focus Particle (FP)** *only if* is a lexical CP-favoring factor, as *only if p, q* contains an overt exhaustifier (see **PI(ii)**) and semantically encodes **PI(i)** [1, 2, 4]. With conditional promises, the condition stated in the antecedent can lie in **Hearer Control (HC)** (i.e., *giving 5\$*), leading to higher amounts CP interpretations than those where the antecedent does not (i.e., *the sun shining*) [6]. We predict that the lexical factor **FP** has a stronger effect than the pragmatic factor **HC** in generating CP, but how do these factors interact? Moreover, how do the three PIs compare with one another in relation to CP?

Three experiments in German (ItemN/FillerN=12/24; SubjN=100/100/96 in **Exp1/2/3**, after outlier removal) were conducted online (on Prolific). All used the same 2x2 factorial design (**FP**:*if/only if* x **HC**:nonHC/HC). Critical items, see (2) for an example with translations in English, each contained a context sentence (S1) followed by a conditional sentence with or without **FP** and with or without **HC** (S2). (S3) asked a rating question on a 7-point scale (1-7: absolutely no-yes), which differed across the experiments: **Exp1** asked ‘*q if ¬p?*’, targetting **PI (i)**. **Exp2** asked ‘*q anyway?*’, targetting **(iii)** in **Exp2**. Lastly, **Exp3** asked ‘*q only if p?*’, targetting **(ii)**. Lower ratings in **Exp1** and **Exp2** are taken as an indication of CP, whereas higher ratings in **Exp3** indicate CP.

Data was analyzed using a cumulative link function with R in the RStudio environment. Results (cf. Figure 1) show: All experiments showed a main effect of **FP** ($p < 0.01$), with *nur wenn* < *ratings wenn* in **Exp1** and **Exp2** and *nur wenn* > *ratings wenn* in **Exp3**. Second, a main effect of **HC** ($p = 0.03$) was present in **Exp2**, with *HC* < *ratings nonHC*; this effect was not significant in **Exp1** or **Exp3**. None of the studies found an interaction effect between **FP** and **HC**. Furthermore, planned comparisons show that when *nur wenn* is present, no significant difference between HC and nonHC can be found across all experiments, whereas the HC and nonHC conditions differed significantly in **Exp1** and **Exp2** (*HC* < *ratings nonHC*: $p < 0.01$) with bare *wenn*.

Altogether, our study provides convergent evidence for the CP-favoring effect of **FP** and **HC**. It also gives insight into the different strength of the effects, with an effect of the pragmatic factor **HC** only being visible in absence of the lexical factor **FP**. We attribute the lack of a significant difference between *wenn*-HC and *wenn*-nonHC in **Exp3** to a methodological deficit in that “nur” was present in both independent and dependent variables. In future work, we intend to perform **Exp3** with a different setup to draw reliable conclusions (e.g., with the question of ‘What if p?’ or ‘q if r?’). Moreover, we plan to test the differences in CP generation between inferences **PI(i)-(iii)** in one experimental setup (to be presented at the conference).

- (1) **If/Only if** you give me 5\$ / If the sun shines today, I'll mow the lawn for you. [*if p, q*]
- (i) If you **don't** give me 5\$ / the sun **doesn't** shine, I **won't** mow the lawn for you. [*if $\neg p$, $\neg q$*]
- (ii) **Only if** you give me 5\$ / the sun shines today will I mow the lawn for you. [*only if p, q*]
- (iii) It's **not** the case that I will mow the lawn for you **anyway**. [*$\neg(q \text{ no matter what})$*]
- (2) (S1-S3) Ziad did schoolwork and said to Paula: "If/Only if there is a movie about the topic/you write the introduction for me, I'll make that poster for you." What did Ziad mean:
- Exp1**— Would he make that poster if there is **no** movie about the topic / if Paula does **not** write the introduction form him?
- Exp2**— Would he make the poster **anyway**?
- Exp3**— Would he **only** make the poster for Paula if there is a movie about the topic / if she writes the introduction for him?

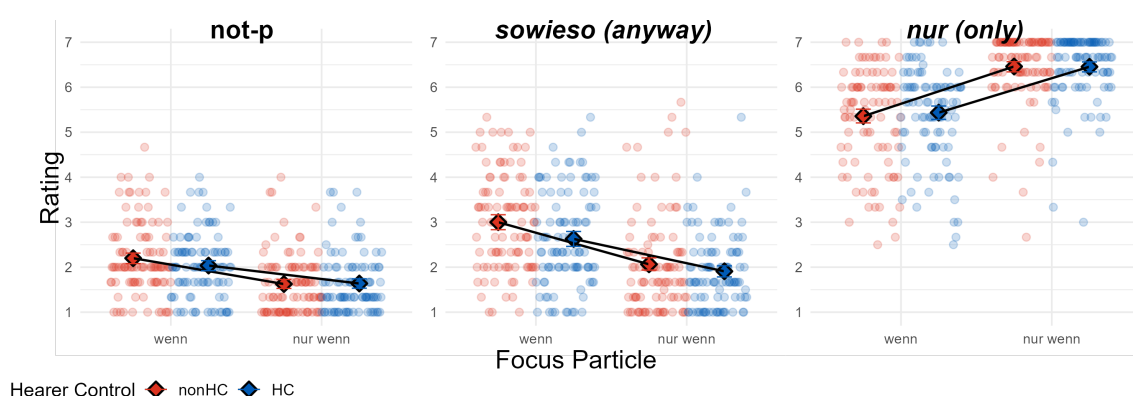


Figure 1: Grand and subject means of Exp1 (*not-P*), Exp2 (*sowieso* 'anyway') and Exp3 (*nur* 'only').

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