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Perfecting imperative conditionals

Introduction. This paper deals with the compositional interaction of two phenomena related to conditionals that to our knowledge have been treated separately so far: (i) **conditional perfection (CP)** (Geis & Zwicky 1971 a.m.o.) and (ii) **conditional imperatives (CIs)** (Schwager 2006, Kaufmann & Schwager 2009). CP is the pragmatic step from *if p, q* to *if **and only** if p, q*. Under a simplified construal, this amounts to the assertion that p verifies q, enriched with the implicature that ¬p falsifies q.

(1) If you mow the lawn, I'll give you $5 — Geis & Zwicky (1971)
⇝ if **and only if** [$_p$ you mow the lawn], [$_q$ I'll give you $5].

CIs are conditionals with imperative clauses as consequents (*if p, Q*-imp).

(2) If you see something, say$_{imp}$ something! — [Kaufmann as] Schwager (2006)

We identify the *question under discussion* (QUD) as shaping the perfected reading in two regards: (a) by determining whether or not there is perfection to begin with (von Fintel 2001) and (b) by 'priming' whether the imperative consequent has a necessity (□) or a possibility (◇) reading. We conclude with implications for the LF-architecture of ICs.

The QUD-approach to CP. According to a proposal by von Fintel (2001), whether or not a given conditional *if p, q* is perfected depends on the type of QUD in which it appears. Two basic types of QUD are distinguished: the first one, which we call QUD1, leaves p open and keeps q stable (*under which conditions q?*); with the other, QUD2, it is the other way around (*what if p?*). QUD1 favors CP because it activates alternative *antecedents*. An exhaustive interpretation of this QUD1 hence identifies p as the only condition to make q true. QUD2, by contrast, does not favor CP: it activates alternative *consequents*, so from an (exhaustive) answer, nothing can be inferred about whether p is the only q-verifying alternative or not.

Approaches to imperatives. Imperatives are wellknown to vary between strong readings (□) and weak readings (◇). For example, the imperative *Stay!* can be read as an order (□) or as a permission (◇) to stay. von Fintel & Iatridou (2017) distinguish between modal and nonmodal approaches to this variation. Among some modal (or hybrid) approaches, the ◇-reading is the basic one (Oikonomou 2016, 2022). For concreteness, we will follow Grosz (2011) in taking imperatives to *have* a modal semantics, and to be **ambiguous** between □- and ◇-readings.

CP as permission under □-readings. Under the □-reading for the imperative, we predict perfecting an IC *if p, Q*-imp to have a *permissive* flavor: only in case of p does the addressee *have to* Q (□Q); in all ¬p-cases, s/he does not have to Q (¬□Q), and is hence *allowed to* not-Q (◇¬Q).

CP as prohibition under ◇-readings. Under the ◇-reading for the imperative, we predict perfecting an IC to have a *prohibitive* flavor: only in case of p is the addressee *allowed to* Q (◇Q); in all ¬p-cases, s/he is not (¬◇Q).

Permission and prohibition are QUD-sensitive. Which of the two readings we get is as sensitive to the QUD as whether there is CP in the first place. Under the QUD-approach to CP, what is needed for an IC to be perfected is a 'CP-favoring' QUD1 rather than a 'CP-neutral' QUD2. As mentioned above, QUD1 keeps the consequent stable, and imperatives are taken by us to be ambiguous ($\Box/\Diamond$). So the modal chosen in the QUD is predicted to 'prime' (disambiguate) the strength of the imperative consequent and, consequently, the kind of 'flavor' (permissive vs. prohibitive) that arises under CP. More concretely, putting a $\Box$-modal like *have to* into a CP-favoring QUD1 is predicted to impose a corresponding $\Box$-reading on the imperative consequent. Qua CP, we predict this IC to imply a negated *obligation* to Q ($\neg\Box$Q), hence a *permission* not to Q ($\Diamond\neg$Q), in non-p cases. This prediction seems borne out:

(3) a. **QUD1: Under which conditions do I have to stay?**
b. Stay if it rains
$\leadsto$ you do not have to stay if it does not rain [if $\neg$rain, $\neg\Box$stay]
$\equiv$ you may leave if it does not rain [if $\neg$rain, $\Diamond\neg$stay]

By contrast, putting a $\Diamond$-modal like *may* into a CP-favoring QUD1 is predicted to impose a corresponding $\Diamond$-reading on the imperative consequent. Qua CP, we predict this IC to imply a *prohibition* to Q in non-p cases, which again seems correct:

(4) a. **QUD1: Under which conditions may I stay?**
b. Stay if it rains
$\leadsto$ you may not stay if it does not rain [if $\neg$rain, $\neg\Diamond$stay]

CP as a window into the IC-architecture. The compositional interaction we observe sheds some light on the LF-architecture of ICs. Schwager (2006) and Kaufmann & Schwager (2009) discuss two options: under **option (a)**, the assumed imperative modal ($\Box_{imp}$) acts as the conditional operator restricted by the antecedent: **[$\Box_{imp}$ (if) p] q**. Under **option (b)**, $\Box_{imp}$ is distinct from the conditional operator ($\Box_{cond}$) and scopes directly above the consequent, resulting in a **'nested'** modal configuration: **$\Box_{cond}$ [(if) p] $\Box_{imp}$q**. A second look at an IC from above disfavors option (a). Under a $\Box$-reading of the imperative consequent, the IC in (5) was observed to have a *permissive* flavor, rather than conveying a prohibition to stay if it does not rain.

(5) If it rains, stay$_{\Box}$ $\not\leadsto$ [if $\neg$rain, $\neg\Diamond$stay]

This very prohibitive flavor seems wrongly predicted for (5) if we take (i) the non-nested option (a) and (ii) the CP-implicature of a conditional *if p, q* to roughly amount to the negated existential claim that no $\neg$p-world is a q-world (Herburger 2015). This is derived under Herburger's (2019) *Conditional Duality*, according to which a conditional modal's force switches from $\Box$ to $\Diamond$ under *only*. The same is predicted to happen to $\Box_{imp}$ serving as the conditional operator under option (a). More concretely, (i) and (ii) together wrongly predict the following truth conditions for (5), with the problematic CP-implicature in bold:

(6) $\Box_{imp}(_{p}$ rain)(stay) **& $\neg\Diamond_{imp}$($\neg$p)(stay)**

We take the inadequacy of (6) to speak in disfavor of the non-nested option (a). The nested option (b), which was implicitly entertained above, correctly predicts no $\neg$rain-case to be a case in which an *obligation* to stay obtains.

Selected references. von Fintel, K. 2001. Conditional strengthening. • Herburger, E. 2015. Conditional perfection. • Kaufmann, M. 2006. Conditionalized imperatives.