Conditional Perfection in promises and threats

The paper reports on two experiments that investigate whether polarity, clause order and strength influence the derivation of Conditional Perfection (CP) in two types of inducements (promises and threats) in Russian. Both experiments were designed as inference tasks, additionally measuring reading of conditionals and reaction to inferences. The 1st experiment had a 2 x 4 x 2 within-subject design ($N_{subjects}$ = 148, N_{items} = 128): Speech acts (promises vs. threats) x Polarity (N-negation, A-negation, C-negation, A/C-negation)[1] x Strength (high vs. low)[2] = 16 conditions. The materials and procedure of the 2nd experiment were similar to the ones of the 1st experiment. The experiment had a 2 x 2 x 2 within-subject design ($N_{subjects}$ = 71, N_{items} = 64): Speech acts (threats vs. promises) x Order (direct vs. inverse) x Strength (high vs. low) = 8 conditions. Both experiments support the view that the CP derivation is not a costly cognitive phenomenon (cf. also Van Tiel and Schaeken 2016). However, several factors that interplay with each other influence the CP derivation. Polarity and speech acts play a key role in the CP derivation, whereas the role of clause order and strength is moderate. Furthermore, the paper points out that, at least with respect to the CP derivation, the negative conclusion bias (that is, dispreference of the negated conclusion/consequent, cf. Evans and Handley 1999, Oaksford et al. 2000 a.o.) is sensitive to a speech act: it is observed in threats and is absent in promises. It is restricted to the C-negation pattern and does not extend to the A/C-negation pattern. The negative conclusion bias is the most time-consuming across all the types of polarity. Moreover, the paper argues for the *parallel double negation effect*. The evidence comes from the fact that the CP derivation in the A/C-negation pattern and in the N-negation pattern is processed at a similar rate. In addition, at least in threats, the A/C-negation pattern facilitates the CP derivation. All said above implies that threats are heterogeneous with respect to the CP derivation. The paper also provides evidence for some further distinctions between the two types of inducements. Firstly, in case of the direct order and N-negation, threats are read faster than promises, presumably because the identifiability of costs that threats bring about is more important than the identifiability of benefits that promises do. Secondly, promises cannot be reformulated as negated threats and vice versa. The paper argues that the denial of benefits/rewards is understood and processed differently from the affirmation of costs/punishments, and the denial of costs/punishments is understood and processed differently from the affirmation of benefits/rewards. This line of thought also suggests that promises, which preserve the hearer's positive face, do not affect the derivation of a quantity inference (that is, CP), whereas threats, which threaten the hearer's negative face, affect it.

References

Evans, J., and Handley, S. (1999). *The quarterly journal of experimental psychology* 52 (3), 739–769. Oaksford, M., Chater, N., and Larkin, J. (2000). *Journal of Experimental Psychology: Learning, Memory, and Cognition* 26(4), 883–899. Searle, J. (1979). *Expression and meaning.* Cambridge: Cambridge University Press. Searle, J., and Vanderveken, D. (1985). *Foundations of illocutionary logic*. Cambridge: Cambridge University Press. Van Tiel, B., and Schaeken, W. (2016). *Cognitive Science* 41, 1119–1154.

[1] No-negation (from "If p, then q" to "If not p, then not q"), Antecedent-negation (from "If not p, then q" to "If p, then not q"), Consequent-negation (from "If p, then not q" to "If not p, q"), Antecedent/Consequent-negation (from "If not p, then not q" to "If not p, then not q").

[2] Following Searle (1979) and Searle and Vanderveken (1985), the idea is that speech acts are hierarchized with respect to the strength. The promise *If you mow the lawn, I will give you a luxury car* seems to be stronger than the promise *If you mow the lawn, I will give you five dollars*.