When and How is Concord Preferred? An Experimental Approach

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Double Negation (DN) and Negative Concord (NC)

Negative concord is a phenomenon which occurs when a sentence containing two negative items (1) is interpreted as having only one negation (1a), as opposed to the second negative "canceling" out the first, which would lead a double negation (1b)

(1): "Nobody said nothin'"
a."Nobody said anything"
b."Everybody said something"
(Since no person said nothing)

In standard French, this ambiguous construction is quite common, both with pronouns (Pro) (e.g.: rien, personne or nothing, noone) or noun phrases (NP) (e.g.: aucun elève, aucune feuille or no student, no leaf).

Background

A longstanding debate in the study of negative dependencies asks whether negative concord (NC) and negative polarity items (NPI) involve largely identical or fundamentally distinct linguistic relations. Deep disagreements remain as to how the meaning is obtained in each case. There are debates as to the role of parallelism and syntactic complexity (Pro vs full NP) in these structures, and how they affect the interpretations of the sentence. Parallel structures involve sentences with identical NPs (e.g.: "Aucun éleve ne lit aucun livre" or "No student reads no book") or two pro-forms (e.g.: "Personne ne pense rien" or "Nobody thinks nothing"). By contrast, non-parallel structures mix forms as with NP-Pro (e.g.: "Aucun enfant ne boit rien" or "No child drinks nothing") or Pro-NP (e.g.: "Personne ne chante aucune chanson" or "Nobody sings no song"). It remains unclear to what degree the structural parallelism and complexity favor an NC or DN interpretation of the sentence.

Research Question

Various semantic models explain NC only, some predict the existence of double negative readings, but none predict what factors can influence the choice of readings by native speakers. N-words syntactic complexity (NP vs Pronoun), their parallelism and syntactic position have been said to matter; so has prosody and processing cost. Our work is designed to test the significance of some of these factors experimentally.

Methods

Participants: Native French speakers (20), French L2 speakers (8)
Task: Forced choice between 2 pictures, each representing one possible reading of an ambiguous sentence.
Computerized experiment using the Presentation software.
Participants read aloud a sentence presented on a computer screen, then pick a scene through mouse clicking
Reading is recorded for intonation analysis and so is picture choice through mouse tracking.
Timing also recorded between picture appearance (bar-pressing) and picture choice (final mouse click)

Stimuli

•96 items total
•32 fillers removed from analysis
•64 critical items left without fillers:
- 8 NP-NP (fig. 1 - No student reads no book.)
- 8 Pro-Pro (Nobody thinks nothing.)
- 8 NP-Pro (fig. 2 - No child drinks nothing.)
- 8 Pro-NP (Nobody sings no song.)
- 32 controls for (8 double negatives), (8 NPIs), (8 simple negative Q) and (8 universal reading)

•Pseudorandomization of slide order (to avoid ordering effects) & of left right picture order (to avoid systematic choice)

Fig. 1

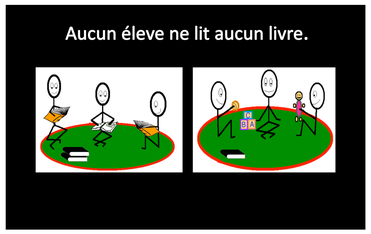
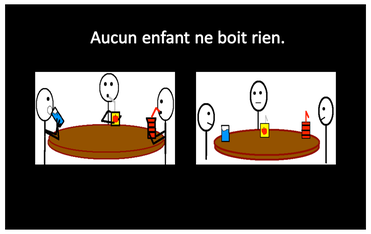


Fig. 2

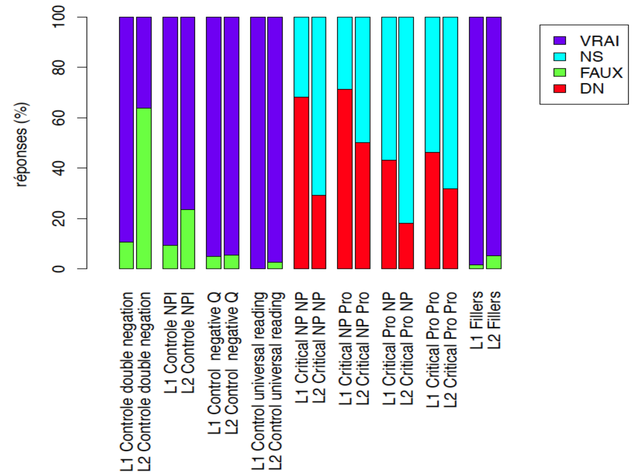


Predictions

The design produces experimental data on the effects of:
1) parallelism
2) structural complexity
3) syntactic position on interpretation preference,
4) processing time for NC vs. DN,
5) intonation contours paired to readings.

On a resumptive quantification analysis of NC, theoretical predictions are as follows:
a) Syntactically simple structures (Pro-Pro) should produce strong NC preference while more complex ones NP-NP should decrease this preference; non-parallel structures (Pro-NP & NP-Pro) should favor DN (Déprez 2000).
b) DN readings should lead lengthened choice time as compared to NC (Corblin)
c) NC and DN preference should manifest characteristically distinct intonation contours (Corblin, Déprez, Larrivée)

Preliminary Results



L1 speakers slightly preferred NC over DN readings for only the Pro-Pro (53.75% NC/ 46.25% DN) and the Pro-NP (56.87% NC/43.12% DN) critical cases. Yet the difference is slight enough to be due to chance. DN readings were preferred in the NP-NP (68.12% DN over 31.88% NC) and NP-Pro (71.25% DN over 28.75% NC) cases. Preference for DN appears governed more by the presence of a complex NP in subject position than by lack of parallelism.

L2 speakers preferred NC in almost all cases. Only NP-Pro yields a choice of DN equal to NC.

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Acknowledgments

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