

No, No, and No.¹

Fabien SCHANG

National Research University, HSE (Moscow)

While the occurrence of “no” and “not” is largely widespread in natural languages, it is often argued that a formal logical treatment of negation is not able to render the variety of linguistic negations. The present talk wants to argue that, on the contrary, a proper formal semantics should be able to render both the pragmatic nature of negation as a force-indicator and the possibility of various unary operators of negation.

Four main theses will be defended for this purpose.

(1) There are three distinctive occurrences of negation, namely: as a *speech-act* of denial (no-answer); as a *quantifier* embedded into a predication; as the resulting content of a negative sentence (the classical constant of negation).

(2) A representation of this tridimensional aspect of negation requires a special formal semantics, namely: *Question-Answer Semantics* (thereafter: **QAS**) with alternative, non-Fregean logical values; these are ordered answers to corresponding questions about arbitrary objects, and the result is a set of finite bitstrings that individuate objects in terms of related differences.

(3) The primacy of speech acts in **QAS** also brings out the self-defeating character of self-referential expressions like “Do not obey!”, or “It is forbidden to forbid”. Beyond the famous Liar Paradox, we attempt to show that there is a common, illocutionary flaw behind all these negative iterated expressions. These could be summarized by the basic statement “Do you answer ‘no’ to this question?”.

(4) Our algebraic framework is based on the theory of opposition and helps to throw some light on a variety of negations like neg-raising (“Julie is not beautiful” meant as “Julie is ugly”), litote (“Julie is not beautiful” meant as “Julie is gorgeous”), and the like; we see how these lead to a set of six negative expressions, including four unary difference-forming operators and two additional metalinguistic negations.

A general conclusion for the preceding is that **QAS** favors a pragmatic approach to logical constants, borrowing from Searle’s illocutionary logic while assuming a primary set of speech-acts: *affirmation* (yes-answer), and *denial* (no-answer). Finally, it enlarges the meaning of negation beyond the usual criterion of incompatibility and endorses rejectivism: negation has to be explained in terms of a primary speech act of denial, rather than the contrary.

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