Eén of twee negaties in filosofie en natuurlijke taal?

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ONE OR TWO NEGATIONS IN PHILOSOPHY AND NATURAL LANGUAGE?

by Rob Wiche

SUMMARY

The purpose of this enquiry is to investigate by means of a number of historical and systematic case studies the way in which a distinction is made in philosophy and/or natural language between external and internal negations and the extent to which such distinctions can be maintained and, eventually, be formalised.

Central to this investigation are the following three questions:
1. Are several kinds of negation distinguished to explain phenomena of natural language?
2. In what way can we speak under 1. of several kinds of negation? Is the distinction a syntactic, a semantic, an inferential or a pragmatic distinction?
3. Must several kinds of negation be distinguished in order to explain the phenomena mentioned under 1. and 2.? Cannot we be satisfied with one kind?

Question one is dealt with in chapters 2, 3, 4, 5, 6 and 8. Chapter 1 offers the elements to answer question 2, while question 3 will be dealt with in chapters 6 and 7.

Chapter 1 discusses four ways to characterise negation: a semantic, a syntactic, an inferential and a pragmatic way.

Chapter 2 is dedicated to answering the question whether we can speak with Aristotle of two kinds of negation or only of one. For this purpose 'Analytica Priora', book 1, chapter 46, is analysed. The result of this analysis is compared to the picture given by Aristotle's non-modal logic (non-modal syllogistic). In this connection Aristotle's distinction between contradictory, contrary, privative and relative opposition will be dealt with. In order to bridge to some degree the gap between Aristotle's negation theories and Kant's (see chapter 3) I will deal in 2.5. with the negation theory of the 13th-century philosopher Petrus Hispanus.

Horn's claim that Aristotle distinguishes between two kinds of negation should be qualified. Aristotle envisages sentences with negative terms; and in his 'Analytica Priora, I, 46' can be recognized two kinds of negation. But in his non-modal syllogistics the term negation hardly plays a role.

Aristotle distinguishes on logical grounds between contrary and contradictory oppositon even when singular sentences are concerned. This distinction could be a motive for the introduction of two kinds of negation. Outside Aristotle's 'Analytica Priora I,46' nothing of such a motive can be found back.

In chapter 3 I shall deal with various aspects of Kant's negation theory. For instance I will discuss the various kinds of opposition that are present in Kant. Kant's most important distinction in this respect is the one between dialectical and analytical opposition. This distinction is connected with Kant's so-called antinomies. Furthermore Kant's distinction

between afffirmative, negative and infinite judgements will be dealt with. Finally Kant's understanding of contradiction will be compared to that of Aristotle.

Beside some six differences between Aristotle's theories of negation and Kant's there is one important similarity: the ambivalent attitude they have with regard to negation. Both philosophers seem to put forth arguments for the distinction of two kinds of negation, although these arguments are not very convincing. As far as this ambivalence is concerned, Kant can be justifiedly called a pupil of Aristotle.

Ayer thinks that the distinctions between affirmations and negations are absolutely not maintainable. Griss pleas for the elimination of negation from constructive (intuitionistic) mathematics. Lastly, Frege thinks that the distinction between affirmations and negations should be withdrawn, until one has found a mark on which such a distinction can be made in every case. These claims are discussed in chapter 4. The most important conclusion is that it is not a very successful enterprise to trying to drive negation from natural language.

In chapter 5 Frege's distinction between judgement-negation and propositional negation and Searle's between illocutionary and propositional negation is dealt with.

Several authors, as chapter 6 shows, make a distinction between two pragmatic functions of denials. Sigwart considers the denial (negation) that has a basis in a lack, as opposed to the denial that rests on a contradiction. Mannoury distinguishes between choice-negation and exclusion-negation, Blau between strong and weak negation, Seuren between minimal (presupposing) and radical (non-presupposing) denial, Reinach between ordinary and polemic negation. A further function of denial is that of discrepancy negation, that is present in amongst others Husserl, Sartre, Wason and Johnson-Laird and Vandamme. Four formal systems, that possibly can serve as formalisation of Mannoury's negation theory are presented in chapter 6: the three-valued systems of Blau, Kleene, Łukasiewicz and Bochvar. Of these systems Blau's is the most adequate.

The functions of exclusion-negation, discrepancy-negation and choice-negation discussed in chapter 6 do not cover all cases: Kant's infinite judgements (chapter 3), Reinach's ordinary negative judgements, Seuren's minimal (presupposing) negation and Blau's strong (asserting, presupposing) negation cannot be brought under those functions. I call these negations minimum-negations in a narrow sense (see the schematic view in 6.9.).

Horn's distinction between truth-functional (descriptive, logical) and metalinguistic (non-descriptive, non-logical) negation is treated in chapter 7. The negations discussed in chapter 6 all belong to what Horn calls descriptive negations. I deal especially with the question whether or not one negation-operator is sufficient. I do this with the help of the predicate-logical system of the 'event logic', thereby making a distinction between initial and derived representations of negations. With the initial representation, knowledge of the context or background knowledge plays no role whatsoever. This conflicts with the case of derived representations. There is just one initial representation. However, more derived representations can be distinguished.

Formally de operator '-KORR' is sufficient for all negations. If on the basis of the context and/or background knowledge we already know that 'NEGα' is a metalinguistic negation,

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we may symbolise 'NEGα' as '-ADα'. If, on the contrary, we know or suspect that 'NEGα' is a descriptive negation, we may choose '-α' as initial representation. The meta-linguistic negation is a non-truth-functional negation. On the contrary all descriptive negations are truth-functional. The operator '-KORR' is semi-truth functional. It is a disjunction of the truth-functional part '-α' and the non-truth-functional part '-ADα'. The differences between the various descriptive negations concern exclusively the derived representations.

Sentences with non-eliminable, morphologically incorporated negations are preferably considered as affirmations.

For the formulation of differences in opinion, exclusion-negation seems to be most adequate (see chapter 6 and 7). But is it the only kind of negation prevailing in discussion? This question will be answered in chapter 8. The subjects relevant here are: questions and negation, stressing and negation, non-competitive versus competitive negations, minimal, intuitionistic (constructive) or classical negation, negative propositions versus negative points of view. The subjects all have to do with the question whether or not two negations have to be distinguished in discussion.

In my opinion those negations that serve primarily to express differences in opinion deserve the predicate 'competitive'. Exclusion-negations, choice- and metalinguistic negations above all can be considered competitive negations. Minimum-negations in a narrow sense and discrepancy-negations on the contrary seem to be non-competitive negations. It is not necessary to adduce a further negation operator (for non-competitive negation) for non-competitive fragments of discussions. The distinction between these fragments is that in non-competitive fragments it does not matter which logical system (minimal-logical, intuitionistic or classical) is chosen, but this choice does matter in a competitive fragment.

Aristotle's distinction between two kinds of negation in 'Analytica Priora I,46' can be characterised as inferential (see the relations between '[#G](x)' and '~G(x)', as they are expressed in the sentences (2) to (8) in 2.2.). This distinction may also be formally reconstructed as a syntactic distinction (see 2.3.).

Kant's characterisations from 3.6. are rather vague: too vague anyway to answer with success the question of what nature these characterisations are.

Searle's and Von Wright's distinctions are of an inferential nature. Von Wright's distinctions, however, can also be characterised as semantical distinctions (see 1.1.). Mannoury's distinction (6.2.3.) is pragmatic, but can also be reconstructed as a semantic distinction, preferably with the help of Blau's system (6.7.1.). Horn's distinction can be characterised as an inferential distinction with the aid of the formula '-KORRα = ADα v -α'. The definition of discrepancy negation (Def. 6.3.) is a pragmatic characterisation. The relation between discrepancy-negation and exclusion-negation is furthermore of an inferential nature. The latter follows from the former, but not the other way around. The distinction between non-competitive and competitive negation can in any case be characterised in pragmatic terms. The same goes for Keijsper's (and Carlson's) two kinds of stressed negations.