

University of London
Birkbeck College

M.A. Seminar - Logic and Metaphysics 2000-1

Term 1: Classes 1-5

Reference and Quantification

Handout 1 4/10/00

- (1) Why examine the workings of names and definite descriptions?
It provides a focus for exploring fundamental issues about how language and thought latch onto the world and a good paradigm case study for logic and semantic theory.
- (2) Frege demonstrated the need for systematic analysis of language to understand how sentences get to be true or false and to stand in logical relations to one another.
- (3) For Frege, each significant sentence is true or false. Each significant expression in a sentence makes a contribution to determining the sentence's truth value. Roughly: in "Clinton smokes", "Clinton" introduces the man and "smokes" ascribes the property of smoking. The sentence is true iff the object introduced by "Clinton" has the property ascribed by "smokes". Hence it is true iff Clinton smokes.
- (4) But the model fails for "someone/no-one/everyone smokes". Quantifiers do not introduce objects to which properties are ascribed by predicates. Rather, they qualify predicates. "Everyone smokes" says of the property of smoking that it belongs to everyone. The quantifier expresses a property of the property of smoking; it tells you how many things have that property.
C.p. Messenger: "Nobody arrived here before I did", King: "Next time I'll

send Nobody, since he walks faster than you".

(5) A Noun Phrase is an expression that occurs in certain positions in sentences: subject, object, indirect object etc.:

(a) Everyone laughed when Al fell into the water.

(b) This man gave a book to Mary on Saturday.

(c) She gave them some money yesterday.

(d) The first female president of the U.S. will be a democrat.

(6) Although Noun Phrases appear to comprise a single syntactic category, they appear to belong to different logical and semantic types.

(7) Frege's view:

(N) All NPs are either quantifier phrases or referring expressions.

The latter category, Frege called Proper Names (his own technical use); they included names of people, places and things and definite descriptions like 'the point of intersection of a and b'. Frege says 'I call anything a proper name if it is a sign for an object' and 'the singular definite article always indicates an object' ('On Concept and Object' pp 47, 45)

(8) Frege used logical criteria to distinguish quantifiers from referring expressions by considering the behaviour of NPs in certain patterns of inference. Referring expressions license two inference patterns: (i) 't is F and t is G' entails 't is F and G'. (ii) 't is either F or G' entails 'either t is F or T is G'. He claimed that quantifier expressions all fail at least one of these: 'someone is F and someone is G' doesn't entail 'someone is F and G'; 'everyone is either F or G' doesn't entail 'either everyone is F or everyone is G'.

(9) What about definite descriptions (dds.)? What about 'the first female president of the U.S.' in (5d)? This passes the logical tests, but is it really a referring expression? If we are not prepared to include it within the category of referring expressions, what should we make of Frege's (N)? Should we look for further criteria to add to our test? Or should we say that the syntactic category of definite descriptions does not belong exclusively to one or other side of the distinction. (Viz.: Are some dds referring expressions and others quantifiers?) These are the options we'll

explore in the rest of this lecture series.

(10) Bertrand Russell keeps Frege's division of semantic categories but argues that we should put dds in the category of quantifiers. Motivations: (i) Epistemological. For Russell, the meaning of a 'logically proper name' is the object it stands for: if there is no object, there is no meaning. To know the meaning of a l.p. name is to know which object it stands for. For Russell, this requires us to be acquainted with the object. However, there are many objects we can talk about with which we never have and never will be acquainted. Instead of knowing about these objects by acquaintance, we know about them by description. Thus we can understand dds (know their meanings) without knowing what object, if any, they stand for.

(ii) Semantic. Intuitively, we can appreciate the difference between utterances whose truth conditions depend on which object we are talking about and those which don't.

(11) 'London is the largest city in the U.K.' The truth-conditions of this sentence depend essentially on whether London alone has the ascribed property. So 'London' is a referring expression. Generalising:

(R) A term t in a sentence ' $P(t)$ ' in an utterance u refers to an object o

iff the truth conditions of u depend essentially on whether P is true of o

Whether u is true depends essentially on o : it is true iff o , in particular, falls under P . If there were no object for which t stood, u would lack truth conditions (and on some views, meaning). If t had referred to some other object, then u would have had different truth conditions and expressed a different proposition.

(12) 'A man is helping police with their inquiries'. The truth conditions of this sentence do not depend essentially on any particular individual, and whether that individual alone has the property of helping police with their inquiries. The sentence would still express a proposition if 'a man' failed to pick anyone out: a false one. Moreover, in the case where it is true and just one man, x , is helping the police with their enquiries, the identity of x is irrelevant to the truth conditions of the utterance and to

the identity of the proposition expressed.

(13) By reference to (R) names and demonstratives count as referring expressions, but indefinite descriptions do not. What about definite descriptions?

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