Russell on Denoting

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Denoting in *The Principles of Mathematics*

- "This notion [denoting] lies at the bottom (I think) of all theories of substance, of the subject-predicate logic, and of the oppositions between things and ideas, discursive thought and immediate perception." (*Principles of Mathematics*, Section 56).

- "A concept *denotes* when, if it occurs in a proposition, the proposition is not *about* the concept, but about a term connected in a certain peculiar way with the concept."

- Any finite number is odd or even.

- The concept "any finite number" is not odd, nor is it even.

- So, the concept "any finite number" denotes in the proposition "Any finite number is odd or even."

- In general, any concept beginning with *all*, *every*, *any*, *a*, *some*, and *the* denotes.

Denoting in "On Denoting"

- "The subject of denoting is of very great importance, not only in logic and mathematics, but also in the theory of knowledge."

- No general characterization of denoting is given, only a list of "denoting phrases."

    - A man,
    - Some man,
    - Any man,
    - Every man,
    - All men,
    - The present King of England.

- "A phrase is denoting solely in virtue of its *form*."

Denoting Phrases and Denotation

- A denoting phrase may or may not denote an actual object.

- In 1905:

    - "The present King of England" denoted a certain man.
    - "The present King of France" denoted nothing at all.

- Some denoting phrases denote ambiguously.

    - In "I saw a man," "a man" denotes an "ambiguous" (or undetermined) man.

- A good theory of denoting will accommodate all three kinds of cases without paradox.

Variables

- The notion of a variable is fundamental to the theory of denoting.

- A variable x "is essentially and wholly undetermined."

- Variables play three key roles in the theory, allowing for:

    - A general characterization of a proposition,
    - Generalization,
    - Cross-reference.

- These roles of the variable will become apparent in succeeding slides.

The Proposition

- A proposition is always of the form $C(x)$.

- In terms of *Principles of Mathematics*, C is the assertion and (x) stands for the subject about which the assertion is made.

- A proposition results from replacing the variable with a denoting phrase, as with C(a man).

- Russell's general thesis is that propositions containing denoting phrases are *reducible* to propositions not containing them.

The Truth of Propositions and Values of Variables

- "$C(x)$ is always true" is taken to be ultimate and indefinable.

- In symbolic logic, this is expressed as "$C(x)$ for all values of x."

- In other words, what is asserted in the proposition truly applies to all things.

- In what follows, we will use the symbolic logic formulation, which is clearer and simpler.

- "$C(x)$ for some values of x" is equivalent to "It is not the case that, $C(x)$ for no values of x."

The Reduction

- "C(a man)" means "$C(x)$ and x is human for some values of x."

  - "I met a man" means "I met x, and x is human for some values of x."

- "C(all men)" means "If x is human, then $C(x)$ for all values of x.

  - "All men are mortal" means "If x is human, then x is mortal for all values of x."

- We now say that "a man" and "all men" are *contextually defined*: they have meaning only when embedded in a larger context.

Definite Descriptions

- Denoting phrases preceded by "the" are "by far the most interesting and difficult of denoting phrases."

- We now call them "definite descriptions."

- Like the other denoting phrases, definite descriptions are contextually defined.

- Strict use of a denoting phrase in the sentence "The father of Charles II was executed" involves:

  - Existence: x was father of Charles II, for some value of x.

  - Uniqueness: if y was father of Charles II, then y is identical with x, for any value of x who was father of Charles II and any value of y.

The Reduction of Definite Descriptions

- The definite description "the father of Charles II" may occur in propositions of the form C(the father of Charles II).

    - The father of Charles II was executed.

- The general analysis of C(the father of Charles II) combines existence and uniqueness:

    - For some value of x, x was father of Charles II, and $C(x)$, and if y was father of Charles II, then y is identical to x, for any value of y.

- So equivalent to "The father of Charles II was executed" is:

    - For some value of x, x was father of Charles II, and x was executed, and if y was father of Charles II, then y is identical to x, for any value of y.

A Puzzle About Identity

- One merit of the contextual definition of definite descriptions is its ability to solve philosophical puzzles.

- One such puzzle is a variant of Frege's case of the morning star and the evening star.

- George IV wished to know whether Sir Walter Scott was the author of the novel *Waverly*.

- In fact, Scott was the author of *Waverly*.

- It seems to follow from the identity that George IV wished to know whether Scott was Scott, which is very unlikely.

- One approach is to say that identicals may not be freely substituted for identicals in "intentional" contexts such as "George IV wished to know that . . . ."

Analysis of an Identity Proposition Containing a Denoting Phrase

- According to Russell, "Scott is the author of *Waverly*" is not a simple assertion of an identity, due to the occurrence of the denoting phrase "the author of *Waverly*."

- Instead, it should be analyzed as follows:

    - For some value of x, x wrote *Waverly*, and Scott is identical with x, and if y wrote *Waverly*, then y is identical to x, for any value of y.

    - In English: One and only one man wrote *Waverly*, and Scott was that man.

Primary and Secondary Occurrence of Denoting Phrases

- The sentence "George IV wished to know whether Sir Walter Scott was the author of *Waverly*" is ambiguous.

  - George IV wanted to know whether there was one and only one man who wrote *Waverly* and Scott was that man (normal meaning).
  - There was one and only one man who wrote *Waverly*, and George IV wanted to know whether Scott was that man (alternate meaning).

- In the first case, the denoting phrase has a *secondary* occurrence.

  - It is analyzed within the context of the subordinate sentence "Sir Walter Scott was the author of *Waverly*."

- In the second case, the denoting phrase has a *primary* occurrence.

  - It is analyzed within the context of the whole sentence, "George IV wished to know whether Sir Walter Scott was the author of *Waverly*."

Meinong's Theory

- According to Meinong's theory, all denoting phrases denote.

- Thus, "the round square" denotes even though there are no round squares.

- The denoted object is said not to subsist, but it remains an object.

- But this allows one to derive a contradiction.

  - The round square is round.
  - The round square is square, and since whatever is square is not round, the round square is not round.

- On Russell's account, both sentences are false, in the way the first one is:

  - x is round and x is a square, and x is round, for some value of x.

Frege's Theory

- Frege distinguishes between the meaning (*Sinn*, sense) and denotation (*Bedeutung*, reference, nominatum) of denoting phrases.

- The meaning expressed by "the author of *Waverly*" is complex, involving authorship and the book *Waverly*.

- The denotation of "the author of *Waverly*" is simple, a single person.

- The identity in "Scott is the author of *Waverly*" is at the level of denotation.

- But "Scott" and "the author of Waverly" have distinct meanings.

- Thus, George IV can be construed as wondering whether the two meanings have the same denotation.

Criticism of Frege's Theory

- Frege must account for the denotation of denoting phrases such as "the round square" and "the present King of France."

- The sentence "The King of England is bald" (uttered in 1905) is about a person.

- By parity of reasoning, "The King of France is bald" (uttered in 1905) should be about a person.

- There is no such person, so it seems that the sentence would have to be nonsense.

- But the sentence makes sense and in fact is false.

- Russell can account for the fact that the sentence makes sense although the denoting phrase it contains has no denotation.

- Frege concocts a denotation, "but this procedure, though it does not lead to actual logical error, is plainly artificial, and does not give an exact analysis of the matter."

A Very Brief Treatment of a Second Criticism

- Frege's theory also suffers from some "curious difficulties" which show that it "must be wrong."

- When a denoting phrase is embedded in a proposition, the proposition is about the denotation of the phrase.

    - The first line of Gray's Elegy states a proposition.
    - "The curfew tolls the knell of parting day" states a proposition.

- The only way to make an assertion about the meaning *of the denoting phrase* is to put it in quotation marks.

    - "The first line of Gray's Elegy"

- But to get the meaning we want, we really should be putting the denotation in quotation marks:

    - The meaning of "The curfew tolls the knell of parting day," not
    - The meaning of "The first line of Gray's Elegy."

- But a quoted denotation is not the meaning of a denoting phrase: the meaning is based on the components of the phrase.

Acquaintance and Description

- The theory of denoting has conequences for knowledge.

- We know things in two ways:

  - By being acquainted with them,
  - Through descriptions of them.

- If we can apprehend (think about) a proposition, then we are acquainted with all its constituents.

- If we know an object (say, someone else's mind) only by description, then our knowledge can be expressed in propositions with denoting phrases, which do not contain the object itself.

- We then know only the properties of the object and do not know any propositions which contain the object itself.