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

- “$C(a\text{ man})$” 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 $x."$"
- “$C(\text{ all men})$” 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 $C(\text{the father of Charles II})$.
  - The father of Charles II was executed.
- The general analysis of $C(\text{the father of Charles II})$ 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 consequences 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.