Russell's Theory of Definite Descriptions
Professor Searle

I. Three (or Four) Puzzles

1. Reference Failure: e.g. “The King of France is bald”. Is this false or neither true nor false, or what?

2. Negative Existentials: e.g. “The Golden Mountain does not exist”. How can we say about something that it does not exist if we have to refer to it in order to say that it does not exist?

3. Identity statements: “Scott is the author of Waverly.”

4. Substitution: e.g George IV wanted to know whether Scott was the author of Waverly, but not whether Scott is Scott. Why does Leibniz's law fail for such cases?

II. Russell's Solution to the puzzles

1. $$(\exists x)(Kx \& (\forall y)(Ky \rightarrow y=x) \& Bx)$$

2. $$\neg(\exists x)(GMx \& (\forall y)(GMy \rightarrow y=x))$$

3. The Identity statement comes out as
   $$(\exists x)(WWx \& (\forall y)(WWy \rightarrow y=x) \& x=Scott)$$

4. There are two readings of the statement about George IV.
   
   Primary occurrence:
   $$(\exists x)(WWx \& (\forall y)(WWy \rightarrow y=x) \& \text{GIV wanted to know whether } x=Scott)$$

   Secondary occurrence:
   GIV wanted to know whether $$(\exists x)(WWx \& (\forall y)(WWy \rightarrow y=x) \& x=Scott)$$

III. How does this solve the puzzles?

1. The statement comes out as false since it makes a false existential claim.

2. In the existential statement there is no reference.

3. The singular term disappears and the statement is not longer of the form $a=b$

4. There is no singular term left to substitute. But then what about the primary occurrence cases where we do want to be able to make the substitutions?

IV. Conclusion: grammatical form is misleading as to logical form.