

# Mind, Matter, and Language

## Lecture 7: Russell on Descriptions

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## Russell on language

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## Russell on language

Bertrand Russell (1872–1970): British philosopher, logician, historian, essayist, political activist.



Russell's views on language in the early 1900s:

- The world is composed of **propositions**.
- An **atomic proposition** is a structure of basic objects and properties/relations:  $(a, F)$   $(a, b, R)$ .
- Atomic propositions can be combined to conjunctive, disjunctive, and universal propositions.
- If 'a' refers to a basic object and 'F' to a basic property, then 'a is F' expresses the proposition  $(a, F)$ .
- **Logical analysis** reveals which propositions are expressed by which sentences.



Russell rejects Frege's introduction of sense.

We can think and talk about objects directly, unmediated by modes of presentation.

Russell rejects Frege's compositional theory of reference.

- '*a* is *F*' expresses  $(a, F)$ .
- '*b* is *G*' expresses  $(b, G)$ .
- '*a* is *F* and *b* is *G*' expresses  $[(a, F), (b, G)]$ .

### Problems for referential semantics:

- What does 'the' (or 'someone', or 'of') refer to?
- What about non-referring expressions like 'Vulcan' and 'Santa Claus'?
- Replacing co-referring expressions can turn uninformative statements into informative statements.
- In attitude reports, replacing co-referring expressions can affect the truth-value of a sentence.
- How can things in the world be combined to give us the meaning of a sentence? A sentence isn't a list.

## The problem of “denoting phrases”

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## The problem of “denoting phrases”

Russell has a problem with what he calls “denoting phrases”:

- ‘Somebody’
- ‘Nobody’
- ‘Everything’,
- ‘a woman’
- ‘the author of Waverley’
- ‘the inventor of bifocals’
- ...

Grammatically, these seem to behave like names. But Russell thinks they do not function like simple names: they are not “logically proper names”.



## The problem of “denoting phrases”

(1) ‘Bob smokes’

The proposition expressed by (1) might be (Bob, Smoking).

(2) ‘Somebody smokes.’

What is the proposition expressed by (2)?

- (Somebody??, Smoking)?

## The problem of “denoting phrases”

(3) ‘The author of Waverley was born in Edinburgh.’

What is the proposition expressed by (3)?

- (Scott, Edinburgh, Being-Born-In)?
- ((The??, Writing, Of??, Waverley), Edinburgh, Being-Born-In)?

## The problem of “denoting phrases”

Russell concludes that denoting phrases do not have reference.

There is no propositional constituent corresponding to these expressions.

## The problem of “denoting phrases”

*‘Everything’, ‘nothing’, and ‘something’, are not assumed to have any meaning in isolation, but a meaning is assigned to every proposition in which they occur. This is the principle of the theory of denoting I wish to advocate: that denoting phrases never have any meaning in themselves, but that every proposition in whose verbal expression they occur has a meaning.*

Russell, “On Denoting” (1905)



## The problem of “denoting phrases”

*If “the author of Waverley” meant anything other than “Scott”, “Scott is the author of Waverley” would be false, which it is not. If “the author of Waverley” meant “Scott”, “Scott is the author of Waverley” would be a tautology, which it is not. Therefore, “the author of Waverley” means neither “Scott” nor anything else – i.e. “the author of Waverley” means nothing.*

Russell, “My philosophical development” (1959)



## Russell's theory of descriptions

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## Russell's theory of descriptions

A **definite description** (in English) is an expression of the form 'the *F*'.

- the author of Waverley
- the inventor of bifocals
- the present king of France

Russell: We can find the meaning of 'The author of Waverley was born in Edinburgh' through logical analysis.

What has to be the case for 'the  $F$  is  $G$ ' to be true?

1. There is an  $F$ .

- 'The author of Waverley was born in Edinburgh' entails that there is an author of Waverley.
- 'The bus to Waverley leaves in 5 minutes' entails that there is a bus to Waverley.



## Russell's theory of descriptions

What must be the case for 'the  $F$  is  $G$ ' to be true?

1. There is an  $F$ .
  2. There is no more than one  $F$ .
- 'The author of Waverley was born in Edinburgh' entails that there is only one author of Waverley.
  - Compare 'The glass of wine I had last night was delicious' and 'A glass of wine I had last night was delicious'.

## Russell's theory of descriptions

What must be the case for 'the  $F$  is  $G$ ' to be true?

1. There is an  $F$ .
2. There is no more than one  $F$ .
3. Every  $F$  is  $G$ .

1 and 2 ensure that there is exactly one  $F$ . 3 adds that this unique  $F$  is  $G$ .

'The author of Waverley was born in Edinburgh' is true iff

1. There is an author of Waverley.
2. There is no more than one author of Waverley.
3. Every author of Waverley was born in Edinburgh.

Russell: The proposition expressed by 'The author of Waverley was born in Edinburgh' is equivalent to that expressed by the conjunction of (1)–(3).

## Russell's theory of descriptions

'The  $F$  is  $G$ ' says that

1. there is an  $F$      $\exists xFx$
2. and there is no more than one  $F$      $\exists x(Fx \wedge \forall y(Fy \rightarrow x=y))$
3. and this unique  $F$  is  $G$ .     $\exists x(Fx \wedge \forall y(Fy \rightarrow x=y) \wedge Gx)$

### Russell's theory of descriptions

The **logical form** of 'The  $F$  is  $G$ ' is ' $\exists x(Fx \wedge \forall y(Fy \rightarrow x=y) \wedge Gx)$ '.

## Russell's theory of descriptions

*Thus 'the father of Charles II was executed' becomes : –*

*"It is not always false of  $x$  that  $x$  begat Charles II and that  $x$  was executed and that 'if  $y$  begat Charles II,  $y$  is identical with  $x$ ' is always true of  $y$ ".*

*This may seem a somewhat incredible interpretation; but I am not at present giving reasons, I am merely stating the theory.*

Russell, "On Denoting" (1905)



## Russell's theory of descriptions

### Russell's theory of descriptions

The logical form of 'The  $F$  is  $G$ ' is ' $\exists x(Fx \wedge \forall y(Fy \rightarrow x=y) \wedge Gx)$ '.

Russell's theory of descriptions is a hypothesis about the structure of the proposition expressed by 'the  $F$  is  $G$ '.

The theory entails a hypothesis about the truth-conditions of 'the  $F$  is  $G$ ':

### Also Russell's theory of descriptions

'The  $F$  is  $G$ ' is true iff there is an  $F$  that is  $G$  and there is no other  $F$ .

## Russell's theory at work

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## Russell's theory at work

Russell suggests that his theory of descriptions provides a response to many arguments against the referential approach to semantics.



**The identity problem:** Replacing co-referring expressions can turn uninformative statements into informative statements.

- (1) Scott is Scott.
- (2) Scott is the author of Waverley.

**Russell's response:** 'the author of Waverley' is not a referring expression.

The logical form of (2) is

- $\exists x(Ax \wedge \forall y(Ay \rightarrow y=x) \wedge x=s)$ .
- There is an author of Waverley who is identical to Scott, and there is no other author of Waverley.

That's more informative than (1).

**The attitude problem:** In attitude reports, replacing co-referring expressions can affect the truth-value of a sentence.

*If a is identical with b, [...] either may be substituted for the other in any proposition without altering the truth or falsehood of that proposition. Now George IV wished to know whether Scott was the author of Waverley; and in fact Scott was the author of Waverley. Hence we may substitute 'Scott' for 'the author of Waverley', and thereby prove that George IV wished to know whether Scott was Scott. Yet an interest in the law of identity can hardly be attributed to the first gentleman of Europe.*



**The attitude problem:** In attitude reports, replacing co-referring expressions can affect the truth-value of a sentence.

- (1) George IV wished to know whether Scott is Scott.
- (2) George IV wished to know whether Scott is the author of Waverley.

**Russell's response:** 'the author of Waverley' is not a referring expression.

*When we say, 'George IV wished to know whether Scott was the author of Waverley', we normally mean 'George wished to know whether one and only one man wrote Waverley and Scott was that man'.*

Russell, "On Denoting" (1905)



**The problem of empty names descriptions:** What about non-referring descriptions like 'the present king of France'?

- (1) The present king of France is bald.  
(??, Being-Bald)

**Russell's response:** 'The present king of France' is not a referring expression.

(1) means

- $\exists x(Kx \wedge \forall y(Ky \rightarrow y=x) \wedge Bx)$ .
- There is a king of France who is bald, and there is no other king of France.