Frege and Russell on Names and Descriptions
Russell's Theory of Descriptions

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The story so far

- We looked at Frege's theory of meaning.
- Terms, predicates and sentences have *sense* and *reference*.
- The theory solves all of the problems under consideration.
- But it relies on the mysterious notion of *sense*?
- Will anything less do?

Talk outline

Introducing the theory

- Russell first put forward his theory of descriptions in 'On Denoting' (1905).
- A more accessible presentation can be found in *Introduction to Mathematical Philosophy* (1919).
- The theory is now viewed as a watershed moment of philosophical analysis.

Definite Descriptions

- *Definite descriptions* are expressions of the form 'the *F*'.
    - The chair of the Philosophy faculty
    - The author of *Principia Mathematica*
    - The present King of France
    - The largest prime number
    - The man responsible for the Haddonfield murders
- Let's also include expressions that can be paraphrased as 'the *F*':
    - My lecture on Russell: the lecture I gave on Russell
    - *Halloween*'s director: the director of *Halloween*

Descriptions and names

- Consider:
  - (1) Russell is a philosopher.
  - (2) The author of *Principia Mathematica* is a philosopher.
- In (1), 'Russell' refers to Russell.
- (1) and (2) look grammatically alike.
- In (2), perhaps 'The author of *Principia Mathematica*' refers to Russell.
- Thought: definite descriptions function semantically like names.

Frege on descriptions

- This was Frege's view.
- He grouped names and definite descriptions together as *singular terms*.
- A singular term purports to refer to a single object.
- Like names, definite descriptions have sense:
  - The star of *Halloween* = Jamie Lee Curtis
- These singular terms are alike in reference but distinct in sense.

Russell on descriptions

- Russell denied this.
  - (1) Donald Glover stays woke.
  - (2) The creator of *Atlanta* stays woke.
- (1) has the form singular term/ predicate.
- (2) looks grammatically similar.
- But (2) works semantically very differently.
- In a slogan: grammatical form can be misleading.

Russell's theory of definite descriptions

- 'The creator of *Atlanta*' is not a name.
- 'The creator of *Atlanta* stays woke' should be analysed as:
  1. There is at least one creator of *Atlanta*; and
  2. There is at most one creator of *Atlanta*; and
  3. Every creator of *Atlanta* stays woke.
- There is exactly one creator of *Atlanta*, and they stay woke.

Russell's theory of definite descriptions

- The F is G:
    1. There is at least one F; and
    2. There is at most one F; and
    3. All Fs are Gs.
- There is exactly one F, and it is G.
- Russell has analysed expressions of the form 'the F'.
- On analysis, 'the F' has disappeared.
- $\exists x (Fx \wedge \forall y (Fy \rightarrow x = y) \wedge Gx)$
- $\exists x (\forall y (Fy \leftrightarrow x = y) \wedge Gx)$

Talk outline

Informative identity

- ► Consider:
  - (1) Donald Glover = Donald Glover
  - (2) Donald Glover = The creator of *Atlanta*
- ► On Russell's analysis, (2) becomes:
  - (2′) There is at least one creator of *Atlanta*; AND
        there is at most one creator of *Atlanta*; AND
        every creator of *Atlanta* is identical to Donald Glover.
  - (2″) Exactly one person created *Atlanta* and that person is Donald
        Glover.
- ► (2) – understood as (2′) – is a substantial truth.

Indirect contexts

- Consider:
  - (1) Owen wonders whether Donald Glover = Donald Glover
  - (2) Owen wonders whether Donald Glover = The creator of *Atlanta*
- On Russell's analysis, (2) becomes:

  Owen wonders whether: exactly one person created *Atlanta*, and that person is Donald Glover

- We'll return to Frege's co-reference problem later, along with the problems of logical words and unity of the proposition.

Empty descriptions

- Consider:

  The largest prime number is my favourite number.

- On Russell's analysis, this becomes:
  - (1) There is at least one largest prime number; and
  - (2) There is at most one largest prime number; and
  - (3) Every largest prime number is my favourite number.

- There is exactly one largest prime number and that is my favourite number.

- This is perfectly meaningful but *false* because (1) is false.

- Most sentences involving empty descriptions come out false.

Negative existentials

- But we don't want them all coming out false:

    The largest prime number does not exist.

- On Russell's analysis, this becomes:
    - (1) There is at least one largest prime number; and
    - (2) There is at most one largest prime number; and
    - (3) Every largest prime number does not exist.

- Problem: this is also false because (1) is false.

- But clearly the original is true.

Existence is not a predicate

- The expression 'exists' is special.
  - (1) The largest prime number does not exist.
  - (2) There is exactly one largest prime number, and it does not exist.
- (1) should be understood as:
  - (1′) It is not the case that: there is at least one largest prime number and at most one largest prime number.
  - (1″) It is not the case that there is exactly one largest prime number.

The Law of Excluded Middle

- Classical logic includes the:
  Law of Excluded Middle $P \vee \neg P$
- Consider:
  - (1) The largest prime number is my favourite number
  - (2) The largest prime number is not my favourite number
- One of (1) and (2) must be true.
- But on Russell's account, both are false.

The Law of Excluded Middle

- ▶ Consider:
  - (1) The largest prime number is my favourite number
  - (2) The largest prime number is not my favourite number
- ▶ On Russell's analysis, (1) is the false:
  - (1′) There is exactly one largest prime number and it is my favourite number.
- ▶ But (2) is *ambiguous* between:
  - (2′) There is exactly one largest prime number and it is NOT my favourite number
  - (2″) It is NOT the case that: there is exactly one largest prime number and it is my favourite number.
- ▶ (2′) is false, contrary to LEM.
- ▶ (2″) is true.

Scope ambiguity

- The issue here is *scope* ambiguity.

  (1) The *F* is not *G*
  (1N) There is exactly one *F* and it is NOT *G*
  (1W) It is NOT the case that: there is exactly *F* and it is *G*

- In (1N), the negation has *narrow* scope: it negates just *G*
- In (1W), the negation has *wide* scope: it negates the whole sentence

  (1) The *F* is not *G*
  (1N) $\exists x(Fx \wedge \forall y(Fy \rightarrow x = y) \wedge \neg Gx)$
  (1W) $\neg\exists x(Fx \wedge \forall y(Fy \rightarrow x = y) \wedge Gx)$

Talk outline

Quick objections

- Russell's analysis cannot account for *all* expressions of the form 'the *F*'.

  Proper Names 'The Clarendon Arms'

  General Terms 'The whale is a mammal'

  Plural Terms 'The members of *Run the Jewels*'

Names

- So far, so good.
- But this has all been about definite descriptions.
- How about the same problems run in terms of names:
  - (1) Donald Glover = Donald Glover
  - (2) Donald Glover = The creator of *Atlanta*
  - (3) Donald Glover = Childish Gambino
- Similarly:
  - (4) The largest prime number is my favourite number
  - (5) Vulcan is my favourite planet

Russell on names

- Names are *disguised* descriptions.
- Names really abbreviate definite descriptions, e.g.
    - Rae Langton: The chair of the philosophy faculty
    - Kanye West: The troubled creator of *My Beautiful Dark Twisted Fantasy*
    - Donald Glover: The irritatingly talented creator of *Atlanta* and 'This is America'
    - Childish Gambino: The musical persona of Donald Glover
    - Vulcan: The planet causing the abnormality in Mercury's orbit
    - Michael Myers: The character who terrorised Haddonfield in *Halloween*

Russell on names

- In this form, the name versions can be solved:
  (1) Donald Glover = Donald Glover
  (2) Donald Glover = Childish Gambino
  (2′) The irritatingly talented creator of *Atlanta* and 'This is America' = the musical persona of Donald Glover.
  (2″) There is exactly one irritatingly talented creator of *Atlanta* and 'This is America' AND
      there is exactly one musical persona of Donald Glover AND
      they are identical

- (1) is trivial but (2) – understood as (2″) – is not.

Russell on names

- Similarly for empty names
  (1) Vulcan is my favourite planet
  (1′) The planet causing the abnormality in Mercury's orbit is my favourite planet
  (1″) There is exactly one planet causing the abnormality in Mercury's orbit and that planet is my favourite planet
- (1) – understood as (1″) – is meaningful but false.

Descriptivism

- The view that names are disguised descriptions is *descriptivism*.
- More precisely, every proper name is synonymous with a definite description.
- But different people will associate different descriptions with a name:
  (1) Donald Glover
  (2) The actor who played Troy Barnes in *Community*
  (3) The creator of *Atlanta*
  (4) The artist responsible for 'This is America'
- Russell thought this was fine, as long as the descriptions stand for the same person.

Talk outline

Conclusion

- Russell's theory of descriptions solves the problems when applied to definite descriptions.
- And it does so without invoking anything like *sense*.
- To extend the theory to *names*, we need to add *descriptivism*.
- The most important critique of descriptivism is given by Saul Kripke in *Naming and Necessity*.
- Shyane will lecture you on this next term.
- Next week, we'll ask whether Frege or Russell won.