

# Comments on 'Beliefs, Propositions, and Definite Descriptions'

Sean Donahue

University of Southern California

May 23, 2017

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

- Proper names could be used in place of definite descriptions.
- A contradiction arises regardless of whether the agent has a *de re* or a *de dicto* belief concerning the truth value of the definite description in question

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

- Contradictions arise in an analogous way for sentences that do not contain definite descriptions (or proper names or self-reference).

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

- Contradictions arise in an analogous way for sentences that do not contain definite descriptions (or proper names or self-reference).
- Consider **Anti-Expert** sentences.

Buridan-Burge: *Ann does not believe this sentence is true.*

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

- Contradictions arise in an analogous way for sentences that do not contain definite descriptions (or proper names or self-reference).
- Consider **Anti-Expert** sentences.

Buridan-Burge: *Ann does not believe this sentence is true.*

F1:  $\gamma$  is  $\neg B_i^{re}T(\gamma)$

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

- Contradictions arise in an analogous way for sentences that do not contain definite descriptions (or proper names or self-reference).
- Consider **Anti-Expert** sentences.

Buridan-Burge: *Ann does not believe this sentence is true.*

F1:  $\gamma$  is  $\neg B_i^{re}T(\gamma)$

**F2:  $\gamma$  is  $B_i^{re}F(\gamma)$**

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

- Contradictions arise in an analogous way for sentences that do not contain definite descriptions (or proper names or self-reference).
- Consider **Anti-Expert** sentences.

Buridan-Burge: *Ann does not believe this sentence is true.*

No definite descriptions, proper names, or self-reference required!

F1:  $\gamma$  is  $\neg B_i^{re}T(\gamma)$

F2:  $\gamma$  is  $B_i^{re}F(\gamma)$

PAE:  $p \leftrightarrow B_i \neg p$

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

**Proposition 4.5** The formula  $B_i(\gamma \text{ is } B_i^{re}F(\gamma))$  is inconsistent in any propositional modal logic closed under Nec and containing K,  $S2^{dicto}$ , CorP, PI, Cor<sub>P</sub>, Cor<sub>N</sub>, I<sub>P</sub>, and I<sub>N</sub>.



# Reasons to Doubt that Definite Descriptions are Central to the Paradox

**Proposition 4.5** The formula  $B_i(\gamma \text{ is } B_i^{re}F(\gamma))$  is inconsistent in any propositional modal logic closed under Nec and containing K,  $S2^{dicto}$ , CorP, PI,  $Cor_P$ ,  $Cor_N$ ,  $I_P$ , and  $I_N$ .

**Proposition PAE** The formula  $B_i(p \leftrightarrow B_i\neg p)$  is inconsistent in any propositional modal logic closed under Nec and containing K, CorP, PI, CorN, and NI.

# Reasons to Doubt that Definite Descriptions are Central to the Paradox

**Proposition 4.5** The formula  $B_i(\gamma \text{ is } B_i^{re}F(\gamma))$  is inconsistent in any propositional modal logic closed under Nec and containing K,  $S2^{dicto}$ , CorP, PI,  $Cor_P$ ,  $Cor_N$ ,  $I_P$ , and  $I_N$ .

**Proposition PAE** The formula  $B_i(p \leftrightarrow B_i\neg p)$  is inconsistent in any propositional modal logic closed under Nec and containing K, CorP, PI, CorN, and NI.

(Proof Sketch: Treat  $B_i\neg p$  as an analogue for  $B_i^{re}F(\gamma)$ . Use K, Nec, and propositional reasoning to derive analogues for lines 5 and 6 of Proposition 4.5. The remainder of the proof is the same.)

# If not Definite Descriptions, Proper Names, or Self-Reference, then What?

- An agent,  $i$ , cannot believe the propositions expressed by **F2** ( $\gamma$  is  $B_i^{re}F(\gamma)$ ) or **PAE** ( $p \leftrightarrow B_i\neg p$ ) and at the same time satisfy the belief constraints of the author's logic.

# If not Definite Descriptions, Proper Names, or Self-Reference, then What?

- An agent,  $i$ , cannot believe the propositions expressed by **F2** ( $\gamma$  is  $B_i^{re}F(\gamma)$ ) or **PAE** ( $p \leftrightarrow B_i\neg p$ ) and at the same time satisfy the belief constraints of the author's logic.
- Perhaps we should accept that there are some propositions that agents whose belief satisfy strong enough constraints cannot believe. Compares to some reactions to Fitch's paradox.

# If not Definite Descriptions, Proper Names, or Self-Reference, then What?

- An agent,  $i$ , cannot believe the propositions expressed by **F2** ( $\gamma$  is  $B_i^{re}F(\gamma)$ ) or **PAE** ( $p \leftrightarrow B_i\neg p$ ) and at the same time satisfy the belief constraints of the author's logic.
- Perhaps we should accept that there are some propositions that agents whose belief satisfy strong enough constraints cannot believe. Compares to some reactions to Fitch's paradox.
- Perhaps we should reject assuming some subset of the belief constraints.

# Potentially Problematic Constraints

- An instance of the axiom schemes describing the relationship between is-statements and belief operators (either  $S1^{re}$ ,  $S2^{re}$ , or  $S2^{dicto}$ ) as well as negative correctness (CorN) and negative introspection (NI) are all common to Propositions 4.1-4.5.

# Potentially Problematic Constraints

- An instance of the axiom schemes describing the relationship between is-statements and belief operators (either  $S1^{re}$ ,  $S2^{re}$ , or  $S2^{dicto}$ ) as well as negative correctness (CorN) and negative introspection (NI) are all common to Propositions 4.1-4.5.
- Negative correctness (CorN) and negative introspection (NI) are all common to Propositions 4.1-4.5 and PAE.

# Potentially Problematic Constraints

- An instance of the axiom schemes describing the relationship between is-statements and belief operators (either  $S1^{re}$ ,  $S2^{re}$ , or  $S2^{dicto}$ ) as well as negative correctness (CorN) and negative introspection (NI) are all common to Propositions 4.1-4.5.
- Negative correctness (CorN) and negative introspection (NI) are all common to Propositions 4.1-4.5 and PAE.
- Nec, K, CorP, CorN, PI, and NI are the relevant commonalities between propositions 4.5 and PAE.