



Attitude ascriptions: a new old problem for Russell's theory of descriptions

Stefan Rinner¹

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Abstract

In order to explain that sentences containing empty definite descriptions are nevertheless true or false, Russell famously analyzes sentences of the form 'The F is G' as 'There is exactly one F and it is G'. Against this it has been objected that Russell's analysis provides the wrong truth-conditions when it comes to non-doxastic attitude ascriptions. For example, according to Heim, Kripke, and Elbourne (*HKE*), there are circumstances in which (1) is true and (2) is false.

- (1) Hans wants the ghost in his attic to be quiet tonight.
- (2) Hans wants there to be exactly one ghost in his attic and for it to be quiet tonight.

After all, the argument goes, unlike (2), (1) can be true without Hans wanting there to be exactly one ghost in his attic. Kaplan and Neale famously reply that the *HKE* objection presupposes that non-doxastic attitudes are closed under entailment, which they are not. For Rostworowski, on the other hand, the problematic principle used by the *HKE* objection is a substitutivity principle for non-doxastic attitude ascriptions. This is further supported by the fact that, as Elbourne points out, Russell's analysis already leads to a problem similar to the *HKE* objection together with substitutivity alone. By questioning substitutivity for non-doxastic attitude ascriptions, Rostworowski tries to block both the *HKE* objection and Elbourne's variant of the *HKE* objection. In this paper, I will argue that Russell's analysis of definite descriptions leads to a variant of the *HKE* objection even in the context of doxastic attitude ascriptions. Since, as we will see, doxastic attitude ascriptions do not seem to suffer from the substitutivity problems discussed by Rostworowski in the context of non-doxastic attitude ascriptions, this will further exacerbate the problem for Russell's analysis. I will then discuss the possibility to reject substitutivity for doxastic attitude ascriptions using a contextualist analysis of attitude ascriptions. However, we will see that, independent of whether we accept substitutivity for doxastic attitude ascriptions, a complete solution of the doxastic problem has to reject Russell's analysis of the truth-conditions of sentences of the

✉ Stefan Rinner
stefan.rinner@lmu.de

¹ Ludwig Maximilian University of Munich, Munich, Germany

form ‘The F is G ’. Concluding, I will show that, unlike Russell’s analysis, the Frege–Strawson analysis of definite descriptions, according to which a sentence of the form ‘The F is G ’ presupposes that there is exactly one F , rather than asserting it, provides an explanation of the *HKE* objection, Elbourne’s variant of the *HKE* objection, and the doxastic problem presented in this paper. This will speak not only in favor of a Fregean analysis of definite descriptions, but also of a Fregean conception of propositions.

Keywords Definite descriptions · Russell’s theory of descriptions · Non-doxastic attitude ascriptions · Doxastic attitude ascriptions · Heim–Kripke–Elbourne problem

1 Introduction

In order to explain that sentences containing empty definite descriptions are nevertheless true or false, Russell (1905) famously analyzes sentences of the form ‘The F is G ’ as ‘There is an entity such that it is F and nothing else is F and it is G ’, in short: ‘There is exactly one F and it is G ’. For example, according to Russell’s analysis, (1) and (2) share their truth-conditions with (3) and (4), respectively.

- (1) The first human being on Mars is British.
- (2) It is not the case that the first human being on Mars is British.
- (3) There is exactly one first human being on Mars and it is British.
- (4) It is not the case that there is exactly one first human being on Mars and it is British.

This analysis is then also applied to definite descriptions embedded in propositional attitude ascriptions, such as (5).

- (5) George believes that the first American on the Moon is American.

Accordingly, (5) shares its truth-conditions with (6).

- (6) George believes that there is exactly one first American on the Moon and it is American.

Among other things, this should explain why in (5) the definite description ‘the first American on the Moon’ cannot be substituted *salva veritate* with the co-extensional description ‘the first man on the Moon’.¹

It has been objected, however, that when it comes to non-doxastic attitude ascriptions Russell’s analysis provides the wrong truth-conditions.² For example, according to Heim (1991), Kripke (2005), and Elbourne (2005) (*HKE*), there are circumstances in which (7) is true and (8) is false.³

¹ Such substitution failures only take place if the description takes narrow scope with respect to the attitude verb.

² Roughly speaking, doxastic attitude ascriptions are statements about the subject’s epistemic propositional attitudes, including (but not limited to) belief, whereas non-doxastic attitude ascriptions are statements about the subject’s non-epistemic propositional attitudes.

³ Again the problem only arises if the description takes narrow scope with respect to the attitude verb, i.e., if (7) is read as ‘Hans wants the following to be the case: the ghost in his attic is quiet tonight’. In what

(7) Hans wants the ghost in his attic to be quiet tonight.

(8) Hans wants there to be exactly one ghost in his attic and for it to be quiet tonight.

After all, the argument goes, unlike (8), (7) can be true without Hans wanting there to be exactly one ghost in his attic.

Kaplan (2005) and Neale (2005) famously reply that the *HKE* objection wrongly assumes that non-doxastic attitudes are closed under entailment. Thus, just like (7), (8) can be true without Hans wanting there to be exactly one ghost in his attic. For Rostworowski (2018), on the other hand, the problematic principle used by the *HKE* objection is a (weaker) substitutivity principle for non-doxastic attitude ascriptions, according to which analytically equivalent sentences, i.e., sentences with the same truth-conditions but different logical forms, can be substituted *salva veritate* in non-doxastic attitude ascriptions. Rostworowski's assessment is further supported by the fact that, as Elbourne (2010) points out, Russell's analysis already leads to a problem similar to the *HKE* objection together with substitutivity alone. By questioning substitutivity for non-doxastic attitude ascriptions, Rostworowski tries to block both the *HKE* objection and Elbourne's variant of the *HKE* objection.

In this paper, I will argue that Russell's analysis of definite descriptions leads to a variant of the *HKE* objection even in the context of *doxastic* attitude ascriptions (Sect. 3). Since, as we will see, doxastic attitude ascriptions do not seem to suffer from the substitutivity problems discussed by Rostworowski in the context of non-doxastic attitude ascriptions, this will further exacerbate the problem for Russell's analysis. I will then discuss the possibility to reject substitutivity for doxastic attitude ascriptions using a contextualist analysis of propositional attitude ascriptions (Sect. 4). However, we will see that, independent of whether we accept substitutivity for doxastic attitude ascriptions, a complete solution of the doxastic problem has to reject Russell's analysis of the truth-conditions of sentences of the form 'The *F* is *G*'. Concluding (Sect. 5), I will show that, unlike Russell's analysis, the Frege–Strawson analysis of definite descriptions, according to which a sentence of the form 'The *F* is *G*' presupposes that there is exactly one *F*, rather than asserting it, provides an explanation of the *HKE* objection, Elbourne's variant of the *HKE* objection, and the doxastic problem presented in this paper. This will speak not only in favor of a Fregean analysis of definite descriptions, but also of a Fregean conception of propositions. I will start with a more detailed discussion of the *HKE* objection and the different responses it gave rise to.

2 Russell's analysis and non-doxastic attitude ascriptions

According to *HKE*, (7) can be true without Hans wanting there to be exactly one ghost in his attic.

(7) Hans wants the ghost in his attic to be quiet tonight.

follows, I will tacitly assume the narrow scope reading when discussing definite descriptions embedded in propositional attitude ascriptions, such as (5) and (7). The problems discussed in this paper in connection with Russell's analysis of definite descriptions do not arise for the respective wide scope readings, such as 'The ghost in Hans' attic is such that Hans wants it to be quiet tonight'.

However, *prima facie*, if (7) is true, then, according to Russell's analysis of definite descriptions, so is (8).

(8) Hans wants there to be exactly one ghost in his attic and for it to be quiet tonight.

From this, in turn, it seems to follow that (9) is true.

(9) Hans wants there to be exactly one ghost in his attic.

A similar problem arises in connection with (10).

(10) Hans wonders whether the ghost in his attic will be quiet tonight.

Again it seems that (10) can be true without Hans wondering whether there is exactly one ghost in his attic. However, if (10) is true, then, according to Russell's analysis, (11) also seems to be true.

(11) Hans wonders whether the following is the case: there is exactly one ghost in his attic and it will be quiet tonight.

From this, in turn, it seems to follow that (12) is true.⁴

(12) Hans wonders whether there is exactly one ghost in his attic.

As said above, according to Kaplan (2005) and Neale (2005), the steps from (8) to (9) and from (11) to (12) are problematic, since they presuppose that non-doxastic attitudes are closed under entailment:

(EC_{ND}) If a rational subject S bears a non-doxastic attitude A towards p , and p entails q , then S bears A towards q .

Against (EC_{ND}), Kaplan and Neale object that there are circumstances in which (13) and (15) are true, while (14) and (16) are false.

(13) Hans wants there to be honest men.

(14) Hans wants there to be men.

(15) Hans wonders whether there are honest men.

(16) Hans wonders whether there are men.

Hence, the Kaplan-Neale response goes, from the fact that (8) and (11) are true it does not follow that so is (9) or (12).

However, Elbourne (2010) points out that even if we reject (EC_{ND}), Russell's analysis of definite descriptions leads to a problem similar to the *HKE* objection. For example, Elbourne notes that while (17), (18), and (19) can all be true together of a speaker who is fully rational when it comes to their propositional attitudes, i.e., an idealized speaker whose reasoning is unrestricted by cognitive limitations and who would never let inconsistent propositional attitudes pass once they recognize them as such, the same holds neither for (17) and (20) nor for (17) and (21).⁵

⁴ Conditionals (see, e.g., Elbourne, 2010) and negative existential quantifiers (see Elbourne, 2018) seem to lead to similar problems.

⁵ Strictly speaking, Elbourne (2010) says that a speaker who sincerely utters (17), (18), and (19) has consistent propositional attitudes, whereas a speaker who sincerely utters (17) and (20) or (17) and (21), respectively, does not. The formulation of the problem used in this paper is intended to take a potential contextualist solution of Elbourne's problem, such as the one discussed in Sect. 4, into account. I will discuss this in more detail in Sect. 4.

- (17) I am unsure whether there is a ghost in my attic.
 (18) I would like there to be an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it is quiet tonight.
 (19) I am wondering whether there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it is being noisy.
 (20) I would like the ghost in my attic to be quiet tonight.
 (21) I am wondering whether the ghost in my attic is being noisy.

Thus, there seem to be circumstances in which (18) and (19) are true, while (20) and (21) are false, e.g., if (17), (18), and (19) are all true together of a fully rational speaker.⁶

Elbourne's variant of the *HKE* objection supports Rostworowski's (2018) assessment that the problematic steps of the *HKE* objection are not the steps from (8) to (9) and from (11) to (12), but rather the steps from (7) to (8) and from (10) to (11).⁷ According to Rostworowski, Russell's analysis of definite descriptions is best understood as an analysis of the truth-conditions of sentences of the form 'The *F* is *G*', and not as an analysis of their logical form. Thus, the embedded sentences of (7) and (8) and of (10) and (11), respectively, have the same truth-conditions, but different logical forms.⁸ Rostworowski calls such sentences *analytically equivalent*. Starting from this, Rostworowski argues that the steps from (7) to (8) and from (10) to (11) are problematic because they presuppose the following substitutivity principle for analytically equivalent sentences in non-doxastic attitude ascriptions:

- (S_{ND}) If a rational subject *S* bears a non-doxastic attitude *A* towards *p*, and *p* is analytically equivalent to *q*, then *S* bears *A* towards *q*.⁹

Against (S_{ND}), Rostworowski (2018, p. 1316) objects that there are circumstances in which (22) and (24) are true, while (23) and (25) are false.¹⁰

- (22) Jones wants to lose the game honorably.
 (23) Jones wants to lose the game and to do it honorably.
 (24) I hope that Sarah will be only 5 min late.
 (25) I hope that Sarah will be late and her delay will be only 5 min.

As Rostworowski points out, unlike (22), (23) seems to imply that Jones wants to lose. Similarly, unlike (24), (25) seems to imply that the speaker hopes that Sarah

⁶ This does not mean that (17), (18), (19), (20), and (21) cannot all be true together. It only means that if (17), (18), (19), (20), and (21) are true, then the speaker is not fully rational when it comes to their propositional attitudes.

⁷ Note that for Rostworowski (2018) the solution to the problem presented by *HKE* cannot be to block the steps from (8) to (9) and from (11) to (12). Although Rostworowski follows Kaplan and Neale in rejecting (EC_{ND}), he accepts conjunction elimination for non-doxastic attitude ascriptions.

⁸ Rostworowski points to Neale (1990), who provides several reasons for abandoning Russell's analysis of the logical form of sentences containing definite descriptions in terms of unary quantifiers and logical connectives.

⁹ In order to avoid that mathematical truths, such as ' $2 + 2 = 4$ ' and 'Two is the smallest prime number', count as analytically equivalent, truth-conditions have to be more fine-grained than sets of possible worlds, e.g., they could be conceived of as sets of situations (see, e.g., Barwise & Perry, 1983).

¹⁰ This has been supported empirically by recent investigations of Rostworowski et al. (2023), which involved tests on ordinary speakers' judgements.

will be late.¹¹ Since both the embedded sentences of (22) and (23) and the embedded sentences of (24) and (25) are analytically equivalent, this speaks against (S_{ND}).¹²

Once we reject (S_{ND}), from the fact that (7) and (10) are true it no longer follows together with Russell's analysis of definite descriptions that so is (8) or (11). Moreover, Russell's analysis would no longer be committed to the claim that (18) and (20) or (19) and (21), respectively, have the same truth-conditions. However, next, I will argue that a problem similar to Elbourne's variant of the *HKE* objection also arises in the context of doxastic attitude ascriptions, which do not seem to suffer from the substitutivity problems discussed by Rostworowski in the context of non-doxastic attitude ascriptions. This will further exacerbate the problem for Russell's analysis of definite descriptions.

3 Russell's analysis and doxastic attitude ascriptions

According to Rostworowski (2018, p. 1326), the main reason why substitutivity fails in the context of non-doxastic attitude ascriptions is that non-doxastic attitude ascriptions seem to support conjunction elimination without supporting entailments in general. For example, while (23) seems to imply that Jones wants to lose, (22) does not, even though, if 'Jones lost the game honorably' is true, then so is 'Jones lost the game'. According to Rostworowski (2018, pp. 1326–1327), this is exactly why sentences of the form 'The F is G ' cannot be substituted *salva veritate* with their Russellian analysis 'There is exactly one F and it is G ' in non-doxastic attitude ascriptions.

The situation is different for doxastic attitude ascriptions of the form ' A is unsure whether p ' and ' A doubts that p '.¹³ Not only do these ascriptions fail to support entailments in general. They also fail to support conjunction elimination. For example, there are circumstances in which (26) and (28) are true, while (27) and (29) are false.

- (26) Jones doubts that he lost the game and did it honorably.
- (27) Jones doubts that he lost the game.
- (28) Jones is unsure whether he lost the game and did it honorably.
- (29) Jones is unsure whether he lost the game.

Even if Jones knows that he lost the game, he could doubt that the conjunction that he lost the game and did it honorably holds. Similarly, he could be unsure whether

¹¹ This is again suggested by Rostworowski et al. (2023).

¹² Note that (S_{ND}) cannot be rejected on the grounds of Frege cases for non-doxastic attitude ascriptions. Although it is generally assumed that there are circumstances in which 'Lois wonders whether Clark Kent is strong' is true, while 'Lois wonders whether Superman is strong' is false, following Kripke (1980), the received view is that their embedded sentences have both the same truth-conditions and the same logical form, which is why they are not analytically equivalent. I will get back to this in Sect. 4.

According to Russell's classical analysis of definite descriptions and proper names, the embedded sentences of 'Lois wonders whether Clark Kent is strong' and 'Lois wonders whether Superman is strong' do not even share their truth-conditions. After all, for Russell, proper names are just disguised definite descriptions. Thus, the fact that co-extensional proper names cannot be substituted *salva veritate* in propositional attitude ascriptions is explained by the fact that they can stand for different descriptions.

¹³ Roughly speaking, an ascription of the form ' A is unsure whether p ' is true if and only if the referent of A neither believes p nor $\neg p$, whereas an ascription of the form ' A doubts that p ' is true if and only if the referent of A believes $\neg p$.

the conjunction that he lost the game and did it honorably holds. But then from the fact that there are circumstances in which (30) and (31) are true, while (27) and (29) are false, we cannot infer that there are circumstances in which (30) and (31) are true, while (26) and (28) are false.

(30) Jones doubts that he lost the game honorably.

(31) Jones is unsure whether he lost the game honorably.

Thus, when it comes to doxastic attitude ascriptions of the form ‘ A is unsure whether p ’ and ‘ A doubts that p ’ the following substitutivity principle does not seem to suffer from the problems discussed by Rostworowski in the context of non-doxastic attitude ascriptions:

(S_D) If a rational subject S bears a doxastic attitude A towards p , and p is analytically equivalent to q , then S bears A towards q .¹⁴

Hence, if together with Russell’s analysis of definite descriptions (S_D) leads to a problem similar to Elbourne’s variant of the *HKE* objection, this would further exacerbate the problem for Russell’s analysis of definite descriptions.

Now, together with Russell’s analysis of definite descriptions (S_D) does indeed lead to a problem similar to Elbourne’s variant of the *HKE* objection. For example, while (17) and (32) can both be true of a fully rational speaker, (17) and (33) cannot.

(17) I am unsure whether there is a ghost in my attic.

(32) I am unsure whether there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it is being noisy.

(33) I am unsure whether the ghost in my attic is being noisy.

An agent who is unsure whether there is a ghost in their attic can be unsure whether there is an entity such that it is a ghost in their attic and nothing else is a ghost in their attic and it is being noisy without necessarily being inconsistent. An agent’s uncertainty as to whether the ghost in their attic is being noisy, on the other hand, seems to be inconsistent with their uncertainty as to whether there even is a ghost in their attic. Thus, there seem to be circumstances in which (32) is true, while (33) is false, e.g., if (17) and (32) are both true of a fully rational speaker. I will call this *the doxastic problem for Russell’s analysis of definite descriptions*.

The problem also arises in the context of ascriptions of doubt. For instance, (34) and (35) can both be true of a fully rational speaker, whereas (34) and (36) cannot.

(34) I doubt that there is a ghost in my attic.

(35) I doubt that there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it will be quiet tonight.

(36) I doubt that the ghost in my attic will be quiet tonight.

¹⁴ Note that (S_D) also seems to hold for belief ascriptions of the form ‘ A believes that p ’. Although these ascriptions support conjunction elimination, they also seem to generally support entailments, which is why there seem to be no circumstances in which ‘Jones believes that he lost the game honorably’ is true, while ‘Jones believes that he lost the game’ is false. Thus, there also seem to be no circumstances in which ‘Jones believes that he lost the game honorably’ is true, while ‘Jones believes that he lost the game and did it honorably’ is false.

Again, it follows that there are circumstances in which (35) is true, while (36) is false.

It seems that in order to block the doxastic problem advocates of Russell's analysis of definite descriptions have to reject substitutivity for doxastic attitude ascriptions of the form 'A is unsure whether p ' and 'A doubts that p '. After all, according to Russell's analysis of definite descriptions, both the embedded sentences of (32) and (33) and the embedded sentences of (35) and (36) are analytically equivalent. Together with (S_D), it would follow that (32) is true if and only if (33) is true, and that (34) is true if and only if (35) is true. Since this is not the case, we either have to reject Russell's analysis of definite descriptions or substitutivity for doxastic attitude ascriptions of the form 'A is unsure whether p ' and 'A doubts that p '.

As we have seen above, neither ascriptions of the form 'A is unsure whether p ' nor ascriptions of the form 'A doubts that p ' support conjunction elimination, which is why the examples discussed by Rostworowski in the context of non-doxastic attitude ascriptions cannot be used to establish that substitutivity does not hold for these ascriptions. Therefore, next, I will discuss the possibility to reject substitutivity for ascriptions of the form 'A is unsure whether p ' and 'A doubts that p ' by assuming a contextualist analysis of propositional attitude ascriptions. However, we will see that, independent of whether we accept substitutivity, a complete solution of the doxastic problem has to reject Russell's analysis of the truth-conditions of sentences of the form 'The F is G '.

4 Rejecting substitutivity

Both philosophers of language and normal English speakers have strong intuitions that there are circumstances in which (37) is true, while (38) is false.

(37) George doubts that John Paul II is Polish.

(38) George doubts that Karol Wojtyła is Polish.

For Russell, this showed that proper names are just disguised definite descriptions. Since even co-extensional proper names, such as 'Karol Wojtyła' and 'John Paul II', can stand for different descriptions, it would follow together with Russell's analysis of definite descriptions that the embedded sentences of (37) and (38) have different truth-conditions, providing an explanation of the fact that there are circumstances in which (37) is true, while (38) is false.

Following Kripke's (1980) arguments against the description theory of proper names, however, the received view is that the embedded sentences of (37) and (38) share their truth-conditions. Therefore, philosophers usually reject the claim that truth-conditionally equivalent sentences can be substituted *salva veritate* in propositional attitude ascriptions. For instance, in order to explain that (37) and (38) have different truth-conditions, so-called contextualists claim that attitude ascriptions of the form 'A V s that p ' refer to contextually determined modes of presentation of the truth-conditions of their embedded sentences (see, e.g., Crimmins, 1992; Crimmins & Perry, 1989). Since the contextually determined modes of presentation of (37) and

(38) differ, the explanation goes, there are circumstances in which (37) is true, while (38) is false.¹⁵

Contextualists could then try to extend this explanation to substitution failures with analytically equivalent sentences. Accordingly, from the fact that (34) and (35) can both be true of a fully rational speaker, whereas (34) and (36) cannot, it does not follow that the embedded sentences of (35) and (36) have different truth-conditions.

(34) I doubt that there is a ghost in my attic.

(35) I doubt that there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it will be quiet tonight.

(36) I doubt that the ghost in my attic will be quiet tonight.

For example, according to contextualists, the embedded sentences of (39) and (40) have the same truth-conditions.

(39) I doubt that John Paul II is Polish.

(40) I doubt that Karol Wojtyła is Polish.

Nevertheless, while (39) and (41) can both be true of a fully rational speaker, (40) and (41) cannot.

(41) I doubt that it is not the case that Karol Wojtyła is Polish.

Contextualists usually explain this with the fact that the contextually determined modes of presentation of (39) and (40) differ.¹⁶

However, there is a crucial difference between the example of (34), (35), and (36) and the example of (39), (40), and (41). According to contextualists, the reason why (39) and (41) can both be true of a fully rational speaker is not the truth-conditional content of the ascribed attitudes, but the way this truth-conditional content is presented to the speaker. After all, for these philosophers, just like a speaker who satisfies (40) and (41), a speaker who satisfies (39) and (41) doubts both a truth-conditional content and its negation.¹⁷ However, while a fully rational speaker is in a position to recognize this by (ideal) reasoning alone under the contextually determined modes of presentation of (40) and (41), the same is not true of the contextually determined modes of presentation of (39) and (41). Therefore, the contextualist explanation goes, (39) and (41) can both be true of a fully rational speaker, whereas (40) and (41) cannot.

¹⁵ A possible variant would be to claim with so-called *Naive Russellians*, such as Salmon (1986), that the contextually determined modes of presentation are only pragmatically implied by ascriptions of the form ‘A Vs that *p*’. These philosophers try to explain our intuitions regarding the truth-values of propositional attitude ascriptions such as (37) and (38) without rejecting substitutivity for truth-conditionally equivalent sentences. Accordingly, normal speakers erroneously believe that there are circumstances in which (37) is true, while (38) is false, since they mistake certain pragmatic implications of these sentences for semantic implications.

¹⁶ Again, Naive Russellians would maintain that these contextually determined modes of presentation are only pragmatically implied by attitude ascriptions such as (39) and (40). Hence, according to these philosophers, our intuitions that (39) and (41) can both be true of a fully rational speaker, whereas (40) and (41) cannot, are again mistaken.

¹⁷ Note that doubting both a truth-conditional content *C* and its negation is not tantamount to doubting the conjunction of *C* and its negation. While the former maintains that both *C* and its negation are false, the latter only maintains that *C* or its negation is false.

The example of (34), (35), and (36) is different. (34) and (35) can both be true of a fully rational speaker exactly because of the truth-conditional content of the ascribed attitudes. An agent who doubts that there is a ghost in their attic should, after all, also doubt that there is an entity such that it is a ghost in their attic and nothing else is a ghost in their attic and it is being noisy. Hence, while, according to contextualists, it is logically impossible that both the doubt ascribed by (39) and the doubt ascribed by (41) are correct, the same is not true for the doubts ascribed by (34) and (35) as it is logically possible that both the truth-conditional content of the embedded sentence of (34) and the truth-conditional content of the embedded sentence of (35) are false.¹⁸ In fact, if the truth-conditional content of the embedded sentence of (34) is false, then so is the truth-conditional content of the embedded sentence of (35). But then, contrary to Russell's analysis of definite descriptions, the embedded sentences of (35) and (36) cannot share their truth-conditions. Otherwise, it would also be logically possible that both the truth-conditional content of the embedded sentence of (34) and the truth-conditional content of the embedded sentence of (36) are false. In other words, it would be logically possible that both the doubt ascribed by (34) and the doubt ascribed by (36) are correct, precluding any kind of irrationality on the part of an agent having these doubts. Since, as we have seen above, (34) and (36) cannot both be true of a fully rational agent, this shows that, independent of whether we accept substitutivity, the embedded sentences of (35) and (36) have different truth-conditions, undermining Russell's analysis of definite descriptions.¹⁹

5 The Fregean analysis of definite descriptions

The main alternative to Russell's analysis of definite descriptions is the Frege–Strawson analysis, according to which a sentence of the form 'The *F* is *G*' presupposes that there is a unique *F*, rather than asserting it (see e.g. Frege, 1892; Strawson, 1950).²⁰ Similarly, a sentence of the form 'It is not the case that the *F* is *G*' presupposes that there is a unique *F*, rather than negating it. After all, presuppositions project from negation. For example, just like (42), (43) presupposes that John used to smoke in the past.

(42) John has stopped smoking.

(43) It is not the case that John has stopped smoking.

In connection with the problems discussed in this paper, the important question is what happens to the presuppositions made by sentences of the form 'The *F* is *G*' in the

¹⁸ A doubt is correct if and only if its truth-conditional content is false. Since it is logically impossible that both a truth-conditional content and its negation are false, according to contextualists, it is logically impossible that both the doubt ascribed by (39) and the doubt ascribed by (41) are correct. Similarly, it is logically impossible that both the doubt ascribed by (40) and the doubt ascribed by (41) are correct.

¹⁹ This also speaks against mixed views, according to which sentences with descriptions both assert and presuppose existence (see, e.g., Abbott, 2008 and Schoubye, 2013). After all, according to these analyses, the embedded sentences of (35) and (36) still share their truth-conditions.

²⁰ As Elbourne (2010) rightly points out, a Fregean analysis of definite descriptions is in principle neutral between different analyses of presuppositions. In particular, it does not have to adopt the Frege–Strawson analysis of presuppositions.

scope of doxastic and non-doxastic attitude verbs. Do they still project? According to Karttunen (1973; 1974), the answer is no. For example, although (42) and (43) presuppose that John used to smoke in the past, according to Karttunen, none of the sentences (44) to (47) makes this presupposition.

- (44) George wants John to stop smoking.
- (45) George wonders whether John has stopped smoking.
- (46) George is unsure whether John has stopped smoking.
- (47) George doubts that John has stopped smoking.

Rather, as Karttunen points out, the presuppositions of the embedded sentences come to form part of a new presupposition carried by the whole sentence, i.e., that the subject of the propositional attitude verb believes the presuppositions made by the embedded sentence. This can be illustrated by the fact that a speaker who utters one of the sentences (44) to (47) above could felicitously continue with (48), but not with (49).

- (48) But in fact John never smoked.
- (49) But he does not believe that John used to smoke.

This suggests that the sentences (44) to (47) presuppose, respectively, that George believes that John used to smoke in the past, without presupposing that John used to smoke.²¹

Starting from this, the Frege–Strawson analysis provides an explanation of the *HKE* objection, Elbourne’s variant of the *HKE* objection, and the doxastic problem presented in this paper. For example, as Elbourne (2010) points out, according to Frege–Strawson, (7) does not presuppose that Hans wants there to be exactly one ghost in his attic.

- (7) Hans wants the ghost in his attic to be quiet tonight.

Instead, (7) only presupposes that Hans believes there to be exactly one ghost in his attic. The same is true of (10).

- (10) Hans wonders whether the ghost in his attic will be quiet tonight.

In this way, the Frege–Strawson analysis provides an explanation of the fact that (7) can be true without Hans wanting there to be exactly one ghost in his attic, and that (10) can be true without Hans wondering whether there is exactly one ghost in his attic.

In addition, the Frege–Strawson analysis provides an explanation of the fact that while (17), (18), and (19) can all be true together of a fully rational speaker, the same holds neither for (17) and (20) nor for (17) and (21).

- (17) I am unsure whether there is a ghost in my attic.

²¹ But see Geurts (1998) for a different assessment. Accordingly, just like (42) and (43), (44) to (47) presuppose, respectively, that John used to smoke, while the belief-inference (i.e., that George believes that John used to smoke in the past) is only pragmatic. As we will see below, this does not affect the discussion of the Frege–Strawson analysis in this section, since all that will be required for the Frege–Strawson analysis to block the *HKE* objection, Elbourne’s variant of the *HKE* objection, and the doxastic problem is the fact that propositional attitude ascriptions allow for the belief-inference.

- (18) I would like there to be an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it is quiet tonight.
- (19) I am wondering whether there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it is being noisy.
- (20) I would like the ghost in my attic to be quiet tonight.
- (21) I am wondering whether the ghost in my attic is being noisy.

As Elbourne (2010) notes, (17) ascribes agnosticism to the speaker regarding the question of whether there is a ghost in their attic, whereas, according to Frege–Strawson, both (20) and (21) presuppose that the speaker believes there is such a ghost.

This explanation can then be extended to the doxastic problem, according to which (17) and (32) can both be true of a fully rational speaker, whereas (17) and (33) cannot.

- (32) I am unsure whether there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it is being noisy.
- (33) I am unsure whether the ghost in my attic is being noisy.

According to the Frege–Strawson analysis, just like (20) and (21), (33) presupposes that the speaker believes that there is a ghost in their attic, while (17) and (32) ascribe (or are consistent with) agnosticism with respect to the question of whether there is a ghost in the speaker's attic.

Something similar holds for the variant of the doxastic problem with (34), (35), and (36).

- (34) I doubt that there is a ghost in my attic.
- (35) I doubt that there is an entity such that it is a ghost in my attic and nothing else is a ghost in my attic and it will be quiet tonight.
- (36) I doubt that the ghost in my attic will be quiet tonight.

While (34) and (35) ascribe (or are consistent with) a disbelief that there is a ghost in the speaker's attic, according to Frege–Strawson, (36) presupposes that the speaker believes there is such a ghost.

6 Concluding remarks

Unlike the problems discussed by Elbourne and *HKE* in the context of non-doxastic attitude ascriptions, the doxastic problem presented in this paper cannot be solved by simply rejecting substitutivity for analytically equivalent sentences. Rather, a complete solution of the doxastic problem has to provide an explanation of the fact that the embedded sentences of (32) and (33) and the embedded sentences of (35) and (36), respectively, have different truth-conditions. As we have seen, this can be better accounted for by the Frege–Strawson analysis of definite descriptions than by Russell's analysis. Although this undermines Russell's analysis of definite descriptions, the question remains whether some version of the Russellian theory of propositions, according to which the propositions we say and believe are structured entities consisting of the objects, properties, and relations our thoughts and speech acts are about, could be preserved. For example, following Kripke (1980), so-called Neo-Russellians maintain that proper names are directly referential terms, i.e., that the semantic content

of a name is just its referent (see, e.g., Braun, 1998; Salmon, 1986).²² Among other things, this should account for the fact that proper names are rigid designators.

The Russellian theory of propositions is one of the reasons why Russellians analyze sentences of the form ‘The *F* is *G*’ as ‘There is exactly one *F* and it is *G*’ in the first place. This should prevent that the truth-conditions of these sentences, and, thus, their Russellian content, directly contain the denotations of the definite descriptions involved. Hence, the question is whether there could be an alternative analysis of definite descriptions achieving the same result, while blocking the doxastic problem, the *HKE* objection, and Elbourne’s variant of the *HKE* objection. It is currently very unclear how such an analysis could look like. However, a more detailed discussion of this question goes beyond the scope of this paper.

An alternative to a Russellian theory of propositions would be to claim that the propositions we say and believe are Fregean propositions, i.e., structured entities whose constituents are ways the objects, properties, and relations our thoughts and speech acts are about are presented to the speaker or agent (see, e.g., Frege, 1892, 1918–19). Such a theory is not committed to Russell’s analysis of definite descriptions, but is also compatible with the Frege–Strawson analysis. In this way, the results of the present paper speak not only in favor of a Fregean analysis of definite descriptions, but also of a Fregean conception of propositions.

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²² Direct reference goes back to Mill (1843). A similar view was advocated by Russell (1905, 1910–1911, 1912). However, according to Russell, the only directly referential terms are so-called logically proper names, i.e., demonstratives, such as ‘this’ and ‘that’, referring to sense-data or other objects of immediate acquaintance.

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