

Rearming the Slingshot

I. Introduction

“Slingshot” arguments are all the rage. And no wonder. For if they turn out to be sound, our approach to most of metaphysics, philosophy of mind, and philosophy of language would be brutally undermined. Slingshot arguments are typically reductio arguments that aim to show that an allegedly non-extensional sentential connective—such as “necessarily ()” or “the statement that Φ corresponds to the fact that ()”—is, to the contrary, an *extensional* sentential connective. That an alleged non-extensional sentential connective would turn out to be extensional is devastating for it would lead to such radical conclusions as: (i) if sentences or proposition refer to facts, then all facts collapse into one big fact, (ii) if sentences or propositions refer to anything, then they refer to their truth value (which means there is just one thing to which all true sentences refer (e.g., the True), and just one thing that all false sentences refer (e.g., the False)), (iii) modal distinctions collapse, such that ‘necessarily p’ and ‘possibly p’ reduce to ‘p,’ etc.¹

The recent resurgence of interest in slingshot arguments is primarily due to Neale (2001)—which is an expansion of Neale (1995)²—where it is argued that slingshot arguments are not only philosophically interesting in their own right, but that they put a “descriptive constraint” on certain theories of facts. Neale thinks that theories of facts are pressured by a certain reformulation of Gödel’s slingshot argument to adopt a particular semantic view of definite descriptions. More specifically, Neale thinks that theories of

¹ Slingshot arguments have been used by philosophers such as Davidson (1967), Church (1943) and Quine (1953), (1960); their validity has been attacked by Lycan (1974), Cummins and Gottlieb (1972), Barwise and Perry (1983), et. al.

² Stephen Neale, “The Philosophical Significance of Gödel’s Slingshot,” *Mind*, Vol. 104, No. 416 (Oct. 1995), 761-825; Neale *Facing Facts*, 2001, Oxford University Press.

facts are forced to adopt a Russellean or non-referential theory of descriptions, on pain of metaphysical collapse.

Neale's claims, however, are not without their critics. In particular, Graham Oppy (1997) and (2004)³ argues that no plausible theory of facts would be constrained by Neale's reformulation of Gödel's slingshot, and as a result, such slingshot arguments are *not* particularly philosophically significant.

In what follows, I will explore Neal's reformulation of Gödel's slingshot, and his claims that such an argument provides a descriptive constraint for certain theories of facts. I will also address Oppy's objections, detailing why I think at least one of them is fairly successful against Neale. My ultimate aim in this paper, however, is to present a *revised* version of the slingshot argument—one that piggy-backs on Neal's formulation, but one that strategically avoids Oppy's objections. This revised version will rely on Kaplan's notion of 'dthat'⁴—a stipulated, technical operator that will allow us to secure a referential treatment of the terms used in the principles underlying the argument. I hope that this will show that *whatever our treatment of descriptions*, the slingshot can still be found to be threatening, and perhaps even devastating.

One quick note before we get started. There is considerable back-and-forth between Neale and Oppy, primarily concerning whether Oppy's objections are ultimately successful against Neale's reformulation of Gödel's Slingshot. My own opinion—and one I hope to make clear in what follows—is that at least one of Oppy's objections *is*

³ Graham Oppy, "The Philosophical Insignificance of Gödel's Slingshot," *Mind*, vol. 104, 1995; and Oppy, "Facing Facts?" *AJP*, (2004).

⁴ David Kaplan, "Dthat," *Pragmatics, Syntax, and Semantics*, no. 9. Later reprinted in *Readings in the Philosophy of Language*, ed. Peter Ludlow (1997): 670-692.

successful against Neale.⁵ However, given that Neale disagrees with Oppy on this point—that is, given that Neale clearly thinks that his formulation *does* work, and that Oppy’s objections are misguided in some way,⁶ my weaker claim will be the following: assuming that Neale’s argument works, appealing to definite descriptions is not going to help, since we can reformulate a slingshot argument that does not rely on definite descriptions.

II. Neale’s Formulation of Gödel’s Slingshot

Neale’s formulation of Gödel’s slingshot relies on several principles of substitutivity and conversion: ι -SUBSTITUTION (ι -SUB), *The Principle of Substitutivity for Material Equivalents* (PSME), ι -INTRODUCTION (ι -INTRO), and ι -ELIMINATION (ι -ELIM).

$$\begin{array}{lll}
 \iota\text{-SUB:} & \begin{array}{l} (\iota x)\phi = (\iota x)\psi \\ \Sigma[(\iota x)\phi] \\ \hline \Sigma[(\iota x)\psi] \end{array} & \begin{array}{l} (\iota x)\phi = \alpha \\ \Sigma[(\iota x)\phi] \\ \hline \Sigma[\alpha] \end{array} & \begin{array}{l} (\iota x)\phi = \alpha \\ \Sigma\alpha \\ \hline \Sigma[(\iota x)\phi] \end{array}
 \end{array}$$

$$\begin{array}{l}
 \text{PSME:} \\
 \phi \leftrightarrow \psi \\
 \Sigma[\phi] \\
 \hline
 \Sigma[\psi]
 \end{array}$$

⁵But, again, as I hope to show, I do not think that this objection will be successful against my version of the slingshot.

⁶ See Neale (1997) and (2001).

$$\begin{array}{l} \mathfrak{t}\text{-INTRO}^7: \quad \frac{\Sigma[x / \alpha]}{\alpha = (\mathfrak{t}x)(x = \alpha \bullet \Sigma[x])} \qquad \mathfrak{t}\text{-ELIM:} \quad \frac{\alpha = (\mathfrak{t}x)(x = \alpha \bullet \Sigma[x])}{\Sigma[x / \alpha]} \end{array}$$

PSME simply says that if ϕ and ψ are materially equivalent—i.e., if ϕ and ψ have the same truth value—then the replacement of one for the other in a sentence Σ is allowed.

Neale reserves “+ \mathfrak{t} -CONV” as shorthand for a sentential connective that is both + \mathfrak{t} -INTRO and + \mathfrak{t} -ELIM; I propose we do the same here. The unwelcome conclusion of the slingshot argument will be that any sentential connective that allows both \mathfrak{t} -CONV and \mathfrak{t} -SUB will also allow PSME.

\mathfrak{t} -CONV are two inference rules that allow the replacement of $\Sigma[x / \alpha]$ —a sentence where x is everywhere replaced by a singular term α —for $\alpha = (\mathfrak{t}x)(x = \alpha \bullet \Sigma[x])$, and vice versa.

The argument, then, runs as follows, where “ \mathfrak{S} ” stands for an arbitrary non-extensional S-connective that is + \mathfrak{t} -CONV, + \mathfrak{t} -SUB, and \neg PSME:

1 [1]	Fa	premise
2 [2]	a \neq b	premise
3 [3]	Gb	premise
1 [4]	a = ($\mathfrak{t}x$)(x = a \bullet Fx)	1, \mathfrak{t} -INTR
2 [5]	a = ($\mathfrak{t}x$)(x = a \bullet x \neq b)	2, \mathfrak{t} -INTR
2 [6]	b = ($\mathfrak{t}x$)(x = b \bullet x \neq a)	2, \mathfrak{t} -INTR
3 [7]	b = ($\mathfrak{t}x$)(x = b \bullet Gx)	3, \mathfrak{t} -INTR
1, 2 [8]	($\mathfrak{t}x$)(x = a \bullet Fx) = ($\mathfrak{t}x$)(x = a \bullet x \neq b)	4,5, \mathfrak{t} -SUB
2, 3 [9]	($\mathfrak{t}x$)(x = b \bullet Gx) = ($\mathfrak{t}x$)(x = b \bullet x \neq a)	6,7, \mathfrak{t} -SUB
10 [10]	\mathfrak{S} (Fa)	premise

⁷ Neale explains the notation: “ $\Sigma[x]$ is any sentence containing *at least one* occurrence of a variable x , and $\Sigma[x / \alpha]$ is the result of replacing *every* occurrence of the variable x in $\Sigma[x]$ by the (closed) singular term α .” Neale (*ibid.*) 788, emphasis his.

10 [11]	$\mathfrak{B}(a = (\iota x)(x = a \bullet Fx))$	10, ι -INTR
1, 2, 10 [12]	$\mathfrak{B}(a = (\iota x)(x = a \bullet x \neq b))$	11, 8, ι -SUB
1, 2, 10 [13]	$\mathfrak{B}(a \neq b)$	12, ι -ELIM
1, 2, 10 [14]	$\mathfrak{B}(b = (\iota x)(x = b \bullet x \neq a))$	13, ι -INTR
1, 2,3,10 [15]	$\mathfrak{B}(b = (\iota x)(x = b \bullet Gx))$	14, 9 ι -SUB
1, 2,3,10 [16]	$\mathfrak{B}(Gb)$	15, ι -ELIM

So given that \mathfrak{B} is ι -CONV and ι -SUB, this argument shows that \mathfrak{B} is also ι -PSME. In other words, \mathfrak{B} has been shown to be truth-functional—i.e., that materially equivalent sentences may be replaced within the scope of \mathfrak{B} *salva veritate*—contrary to our assumption. We can see the philosophical consequences of this conclusion more clearly if we replace \mathfrak{B} with “necessarily ($_$)” or “the statement that ϕ corresponds to the fact that ($_$)”.⁸

II. The Slingshot and Definite Descriptions

Notice that the strength of Gödel’s slingshot relies heavily on the use of definite descriptions, and the inference rules that we deem valid for them. In particular, we need to be able to grant that ι -SUB is a valid rule of inference to get the slingshot up and running. However, as Neale is enthusiastic to point out, if one is Russellean about definite descriptions, then one will already be motivated to reject ι -SUB, rendering the slingshot ineffective.

⁸ Interestingly, Colin McGinn (1976) has suggested that the Curch-Davidson-Quine slingshot argument can be altered in just such a way to avoid Lycan and Cummins and Gottlieb type objections. McGinn does not, however, attribute the suggestion to Gödel, and Neale does not seem to have recognized that McGinn’s suggestion closely resembles his interpretation of Gödel. See McGinn (1976).

Russell⁹ claimed that, contrary to appearances, definite descriptions such as the one in (1)

(1) The man in the moon is laughing at you.

are not of subject-predicate form. Rather, such sentences are disguised quantificational sentences satisfying the following three conditions:

- (i) There is at least one man in the moon
- (ii) There is at most one man in the moon
- (iii) For every man in the moon, he is laughing at you

Put formally, this means that (1) has the logical form of (1*), where ‘M’ stands for ‘man in the moon’ and ‘L’ stands for ‘is laughing at you’:

(1*) $\exists x (Mx \ \& \ (\forall y(My \rightarrow x = y) \ \& \ Lx))$

According to this view, since descriptions are not singular terms, but rather quantificational statements such as (1*), then we should not expect them to behave as singular terms. In particular, we should not be surprised that the inferences that are legitimate for singular terms will not be legitimate for definite descriptions.

As concerns the slingshot argument, this means that we would not want to admit ι -SUB as a valid rule of inference. For recall that ι -SUB claims that singular terms and definite descriptions can be swapped for each other in a sentence containing one or the

⁹ Bertrand Russell, “On Denoting,” *Mind*, 14:479-93, 1905.

other, *salva veritate*. But according to Russell, we shouldn't expect such substitution since there is an important difference between singular terms and definite descriptions—viz., singular terms refer, whereas descriptions do not. Neale's formulation of Gödel's slingshot allows the substitution of descriptions for singular terms in steps [8], [9], and [12] in the slingshot argument—a move that will be illegitimate if we are Russelleans about definite descriptions.

Fortunately, and as Neale is eager to point out, there are plenty of reasons to be a Russellean about definite descriptions. First, as lauded by Russell himself, the quantificational treatment of definite descriptions gets us out of four well-known semantic puzzles—negative existentials, apparent reference to non-existent entities, Frege's puzzle, and substitutivity puzzles. Moreover, in light of Donnellan-type cases¹⁰, Saul Kripke has provided a convincing pragmatic story to account for apparently non-Russellean-behaving descriptions.¹¹ Finally, there are all of the other reasons that Neale himself points out such as the fact that no other competing non-Russellean theory of descriptions seems quite up to snuff, etc.¹²

So the moral of the Slingshot (as Neale has reformulated it): tough luck for those particular fact theorists¹³ who are not Russelleans about definite descriptions, but no sweat for those who are.

¹⁰ See Keith Donnellan "Reference and Definite Descriptions," *The Philosophical Review*, 77 (1966): 281-304. Later reprinted in *Readings in the Philosophy of Language*, ed. Peter Ludlow (1997): 361-381.

¹¹ See Saul Kripke, "Speaker's Reference and Semantic Reference," *Studies in the Philosophy of Language*, Midwest Studies in Philosophy, no. 2. Later reprinted in *Readings in the Philosophy of Language*, ed. Peter Ludlow (1997): 383-414.

¹² See Neale (2001), Neale (1990), etc.

¹³ By "particular fact theorists" I mean those fact theorists whose theories are +*t*-CONV.

IV. Oppy's Objections

Regardless of the seeming plausibility of being a Russellean about definite descriptions, however, Oppy thinks that such considerations are irrelevant when it comes to assessing the success of Neale's formulation of the argument. That is, he thinks that (i) no plausible theory of facts need be threatened by Gödel's slingshot in any way and (ii) no referential theory of descriptions need be threatened by such arguments either. In particular, Oppy thinks that any plausible theory of facts has reason to reject ι -CONV, and any plausible referential theory of definite descriptions has reason to reject ι -SUB, independent of any slingshot argument.

i. Oppy's First Objection

To see that any plausible theory of facts has independent reasons for rejecting ι -CONV, Oppy asks us to consider the move from line [1] to [4] in Neale's version of the slingshot, which uses ι -INTRO. In order for this move to be legitimate, one would have to think that "Fa" and " $a = (\iota x)(x = a \bullet Fx)$ " express that same fact. But, as Oppy argues, on any plausible theory of facts—and apart from one's theory about definite descriptions—"Fa" and " $a = (\iota x)(x = a \bullet Fx)$ " will express distinct facts. For if we are Russelleans about definite descriptions, Oppy maintains, we will claim that "Fa" expresses an atomic fact, and " $a = (\iota x)(x = a \bullet Fx)$ " expresses a general fact. If we are referentialists about descriptions, Oppy continues, we will think that "Fa" expresses a monadic fact and that " $a = (\iota x)(x = a \bullet Fx)$ " expresses a dyadic fact. If "Fa" and " $a = (\iota x)(x = a \bullet Fx)$ " express distinct kinds of facts, then we won't deem valid any rule of

inference that allows the replacement of one for the other. So whatever our view of definite descriptions, Oppy concludes, there is no reason to think that any plausible theory of facts would be tempted to adopt ι -CONV.¹⁴

ii. Oppy's Second Objection

To see that any plausible referential theory of definite descriptions has independent reasons to reject ι -SUBS, Oppy asks us to consider the reasons for denying semantic innocence in the first place.¹⁵ Assuming that “necessarily” is a non-extensional sentential operator, and assuming for a moment that we are referentialists about definite descriptions, we will nevertheless *expect* singular terms to behave differently in the scope of “necessarily.” Otherwise, Oppy argues, we would not be able to account for the invalid reading of the inference from “necessarily, nine is the square of three” to “necessarily, nine is the number of planets.” That is, a referential theory of definite descriptions will already have plenty of reasons to disallow the substitution of singular terms in non-extensional contexts—i.e., they will already have reasons to reject ι -SUB.

To review, Neale's formulation of Godel's slingshot relies on a theory of facts that accepts ι -CONV and ι -SUB as valid rules of inference. If Oppy is right, however, no plausible theory of facts would adopt ι -CONV, nor would any referential theory of descriptions adopt ι -SUB. Thus, Oppy concludes that theories of facts everywhere should

¹⁴ Oppy (1995).

¹⁵ If a semantic theory is *semantically innocent*, then the semantic content of singular terms is the same in extensional and non-extensional contexts alike.

be unperturbed by Neale's version of Gödel's slingshot, and that such theories are not forced in any way into adopting a particular theory of descriptions.

(It should be noted at this point that I think that Neale has a fairly adequate response to Oppy's first objection. And as we'll see, whatever Neale can do, I can do too. So I will have a response to this objection as well (in fact, I'll just piggy-back on Neale's response, getting off when it's to my advantage). However, I think Oppy's second objection is fairly successful against Neale, thus rendering the slingshot fairly ineffective against *any* fact theorist—whether a Russellian about definite descriptions or not. See below, section VI ii, for further discussion.)

V. Rearming the Slingshot

I find Neale's discussion of the slingshot and its philosophical consequences extremely interesting and lucid, but Oppy's objections particularly illuminating and helpful. However, as far as Neale's formulation of the slingshot goes, I can't help but think that there is a trick going on here—a mere hand-waving away of a problem that actually runs much deeper than is being appreciated. To see this, I propose we ignore Oppy's objections for a moment and concentrate solely on Neale's formulation of Gödel's slingshot. If we assume for the sake of argument that Neale's formulation of the slingshot works, I think it can be shown that merely by adopting a Russellian theory of descriptions, one *cannot* avoid the main force of the argument. (This, recall, is the weaker of two claims that I will argue for in this paper.)

My worries can be better articulated if we reformulate the slingshot, and the principles that generate it. After we reformulate the argument, we will return to Oppy's objections.

What we need is a way of ensuring that the principles underlying the slingshot lock us into a referential treatment of the descriptions or description-like phrases that are used to generate the reductio. We cannot do this with descriptions, however, if one insists on giving them a Russellean treatment. But there might be a way of getting around this hurdle—a way to force someone to be referentialist about something description-like *enough* to get at the heart of the problem.

The trick, I propose, is to turn to demonstratives. I suggest that we use Kaplan's notion of 'dthat'—a demonstrative use of 'that.'¹⁶ Kaplan introduces this device to uncover some interesting facts about descriptions and demonstratives. While the bulk of his conclusions are not relevant to our purposes here, I would like to borrow his locution 'dthat', since I think that it will help us rearm the slingshot. The idea is that 'dthat' is followed by a demonstration (paradigmatically, a pointing or an indication of some sort), such that we somehow get the object that we are pointing to into our proposition. In other words, we are forced, by way of 'dthat' (and an accompanying successful demonstration), to treat the demonstrative referentially.

i. Kaplan's "dthat"

There are a couple of things to get clear on before we proceed to my proposed revised slingshot. First, Kaplan is unmistakably candid about the stipulative nature of his

¹⁶ David Kaplan, "Dthat," *Pragmatics, Syntax, and Semantics*, no. 9. Later reprinted in *Readings in the Philosophy of Language*, ed. Peter Ludlow (1997): 670-692.

operator, so I want to be upfront about this, too. So at this point, it will not matter if you think that “dthat” doesn’t seem to correspond to anything in ordinary language. In point of fact, Kaplan *does* think we use demonstratives in the “dthat” way, but I take it that this is irrelevant to his (and my) point. The idea is that once we have stipulated the use of “dthat” in the way that we want, it is then an available, helpful tool ready for our use.

Second, Kaplan sets up “dthat” so that it is typically followed by a bracketed description in single quotes, which is not itself part of the proposition. That is, instead of the demonstration acting *as* a description and being part of the content of the proposition, we let a description serve as an (unvoiced) demonstration. Consequently, the demonstration allows us to get objects directly into the proposition, as would a rigid designator, or any other genuinely singular, referential term.

For example, Kaplan claims that statements such as (2) and (3)¹⁷

(2) Dthat [‘the guy standing on the demonstration platform nude, clan shaven, and bathed in light’] is suspicious.

(3) Dthat [‘the guy lurking in the shadows wearing a trench-coat, bearded, with his hat pulled down over his face’] is suspicious.

both express the same proposition—viz., (4):

(4) <John, p>

where “John” in (4) is the individual, John, and “p” is the property of *being suspicious*.

Now Kaplan admits that this will lead to a sort of epistemic opacity with regard to some of our utterances and beliefs. For example, since “dthat” is posited as being audibly

¹⁷ I’ve modified these examples, changing “he” to “dthat,” and using the single-quoted device he introduces later in the article. Yet incorporating all that Kaplan says, this change should be harmless, and merely allows me to make my point more efficiently. See Kaplan (*ibid.*, 678) for the original example.

indistinguishable from “that,” one might utter (3) mistakenly—i.e., someone might really intend to utter the Russellean (5):

(5) The guy lurking in the shadows wearing a trench-coat, bearded, with his hat pulled down over his face is suspicious.

The idea would be that sometimes we use “that” in a Russellean way, letting our demonstration serve a description. In this way, the pointing gets *into* our proposition and is treated as a description, just in the way that a Russellean description is.

Kaplan goes on to claim that ordinary utterances using the phonological “that” are in fact audibly ambiguous, and ambiguous in a special kind of way.¹⁸ However, I don’t think that these claims are quite relevant to the discussion at hand. All that I am interested in is borrowing “dthat” as Kaplan has stipulated it. For insofar as it is a coherent notion that can deliver object-dependent propositions, it will serve my purposes well.

So now that we’ve got a cursory sense of how “dthat” works, let us see what happens when we use this locution in a revised version of Gödel’s slingshot...

ii. Revising the Slingshot

Let us use ‘ $\delta[(\iota x)\phi]$ ’ to stand for ‘*dthat* [‘the x satisfying ϕ].’ Then we can rewrite the ι -SUB rules as δ -SUB:

δ-SUB:	$\frac{\delta[(\iota x)\phi] = \delta[(\iota x)\psi]}{\Sigma[\delta[(\iota x)\phi]]}$ <hr style="width: 100%;"/> $\Sigma[\delta[(\iota x)\psi]]$	$\frac{\delta[(\iota x)\phi] = \alpha}{\Sigma[\delta[(\iota x)\phi]]}$ <hr style="width: 100%;"/> $\Sigma[\alpha]$	$\frac{\delta[(\iota x)\phi] = \alpha}{\Sigma\alpha}$ <hr style="width: 100%;"/> $\Sigma[\delta[(\iota x)\phi]]$
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¹⁸ See Kaplan (682).

δ -SUB is a triple of inference rules, the first of which says that if dthat [‘the thing that satisfies ϕ ’] is identical to dthat [‘the thing that satisfies ψ ’], then for any sentence Σ in which the demonstrative description $\delta[‘(\iota x)\phi’]$ occurs, $\delta[‘(\iota x)\psi’]$ can be substituted in for $\delta[‘(\iota x)\phi’]$, *salva veritate*.

Let us also rewrite ι -INTRO and ι -ELIM as δ -INTRO and δ -ELIM (and let us call something ‘ $+\delta$ -CONV’ if it allows both δ -INTRO and δ -ELIM as valid rules of inference):

$$\begin{array}{l} \delta\text{-INTRO:} \quad \frac{\Sigma[x / \alpha]}{\alpha = \delta[‘(\iota x)(x = \alpha \bullet \Sigma[x])’]} \\ \delta\text{-ELIM:} \quad \frac{\alpha = \delta[‘(\iota x)(x = \alpha \bullet \Sigma[x])’]}{\Sigma[x / \alpha]} \end{array}$$

Finally, assuming that ‘ \textcircled{S} ’ is a non-extensional sentential connective that is both $+\delta$ -CONV and δ -SUB, the argument rewritten runs as follows:

1 [1]	Fa	premise
2 [2]	$a \neq b$	premise
3 [3]	Gb	premise
1 [4]	$a = \delta[‘(\iota x)(x = a \bullet Fx)’]$	1, δ -INTR
2 [5]	$a = \delta[‘(\iota x)(x = a \bullet x \neq b)’]$	2, δ -INTR
2 [6]	$b = \delta[‘(\iota x)(x = b \bullet x \neq a)’]$	2, δ -INTR
3 [7]	$b = \delta[‘(\iota x)(x = b \bullet Gx)’]$	3, δ -INTR
1, 2 [8]	$\delta[‘(\iota x)(x = a \bullet Fx)’] = \delta[‘(\iota x)(x = a \bullet x \neq b)’]$	4,5, δ -SUB
2, 3 [9]	$\delta[‘(\iota x)(x = b \bullet Gx)’] = \delta[‘(\iota x)(x = b \bullet x \neq a)’]$	6,7, δ -SUB
10 [10]	$\textcircled{S}(Fa)$	premise
10 [11]	$\textcircled{S}(a = \delta[‘(\iota x)(x = a \bullet Fx)’])$	10, δ INTR
1, 2, 10 [12]	$\textcircled{S}(a = \delta[‘(\iota x)(x = a \bullet x \neq b)’])$	11, 8, δ -SUB
1, 2, 10 [13]	$\textcircled{S}(a \neq b)$	12, δ -ELIM
1, 2, 10 [14]	$\textcircled{S}(b = \delta[‘(\iota x)(x = b \bullet x \neq a)’])$	13, δ -INTR
1, 2,3,10 [15]	$\textcircled{S}(b = \delta[‘(\iota x)(x = b \bullet Gx)’])$	14, 9 δ -SUB
1, 2,3,10 [16]	$\textcircled{S}(Gb)$	15, δ -ELIM

So, parallel to Neale’s argument, given that ③ is + δ -CONV and + δ -SUB, this argument shows that ③ is also +PSME, contrary to our assumption. All we have done is swap rules involving referring demonstratives for ones involving definite descriptions.

To the extent that Neale thinks that his formulation of Gödel’s slingshot is a threat to theories of facts, this version of the argument should be, too. However, unlike Neale’s version, there is no escaping metaphysical collapse. For our “dthat” operator was specifically hand-picked to ensure that one cannot make a Russellean escape. Moreover, moving to a Russellean view about demonstratives is clearly more controversial and less widely accepted than a Russellean theory of descriptions. One would need to provide independent reasons for holding such a view, on pain of seeming ad hoc. Finally, even Russell himself thought there was something special about the demonstratives ‘this’ and ‘that’—something that prohibited them from receiving a purely quantificational analysis.¹⁹ Treating demonstratives as non-referential would clearly violate some of our initial and deep-seated intuitions on the matter. So it seems we have a revised version of Gödel’s slingshot—one that tactically evades Neale’s descriptive constraint.

VI. Avoiding Oppy’s Objections

If the above slingshot works, however, how does it avoid Oppy’s worries? Recall that Oppy claimed that (i) no plausible theory of facts need be threatened by the argument, and (ii) no plausible referential theory of descriptions need be worried by such arguments either, since such a theory of descriptions would have long ago given up

¹⁹ See Bertrand Russell, “Descriptions,” *Introduction to Mathematical Philosophy*, 1919. Later reprinted in *Readings in the Philosophy of Language*, ed. Peter Ludlow (1997): 323-333.

semantic innocence. These claims rested on the belief that any plausible theory of facts and any plausible referential treatment of descriptions would have independent reasons for rejecting ι -CONV and ι -SUBS, respectively. My aim, then, is to show that my revised version of the slingshot is not subject to similar worries. In particular, I want to show that it is not so clear that a theory of facts would reject δ -CONV, and that it is even less clear that a *referentialist* about “dthat”—which, by design, is the only theoretical option in this case—would have independent grounds for rejecting δ -SUB.

i. Oppy’s Second Objection First

Let us first take a look at the reasons for rejecting δ -SUB. When it comes to referential theories of definite descriptions, Oppy claims that there is already reason to deny semantic innocence. For if we didn’t, he argues, then we wouldn’t be able to account for the reading in which one invalidly infers from “necessarily, nine is the square of three” to “necessarily, nine is the number of planets.”

However, I think the situation is importantly different when using “dthat.” For example, consider the inference from “Necessarily, nine is dthat [‘the square of three’]” to “Necessarily, nine is dthat [‘the number of planets’].” Now admittedly, this example is a bit odd in that we have to imagine that we can somehow point to or demonstratively pick out an abstract object. But given the way in which Kaplan sets up his “dthat” operator, this should be no more difficult than picking out a concrete object.²⁰ Notice, then, that there isn’t any temptation to hear a reading on which the forgoing inference is invalid, as there is in the definite description case. For given how the “dthat” operator

²⁰ See below, section VII, for some elaboration on this point.

works, there simply is no invalid reading of “Necessarily, nine is dthat [‘the number of planets’]” from “Necessarily, nine is dthat [‘the square of three’].”

To use a slightly different example, consider the inference from “Joe believes dthat [‘the evening star’] is pretty” to “Joe believes dthat [‘the morning star’] is pretty.” Since “dthat” was specifically designed to pick out objects directly, we should have no problem inferring one of these statements from the other, and there should be no worries about having such inferences be invalid in any way. Also, propositional attitudes seem to me to be a stronger case. For given the hyper-intentional nature of propositional attitudes, if we can get the inferences to go through here, we can get them to work anywhere. So if the forgoing inference is unproblematic, then we’ve got all we need to deflect Oppy’s first objection.

In brief, there seems to be no temptation (or reason) to deny semantic innocence with regard to our “dthat” operator. And so, there will be no independent reason to reject δ -SUB, making any theory of facts such that it will have to be $+\delta$ -SUB. Thus, Oppy’s second objection will not apply to the revised slingshot. (However, recall that I do think that this objection works against Neale’s reformulation of the slingshot, since we should expect referential theories of descriptions to deny semantic innocence, hence denying ι -SUB.) That Oppy’s objection works against Neale’s reformulation of the slingshot, but not against mine, is certainly an advantage of my formulation of the argument.

ii. Oppy’s First Objection Second

Yet there is still Oppy’s first worry—viz., that no plausible theory of facts will allow ι -CONV as a valid rule of inference, independent of slingshot constraints.

According to Oppy, this is because no matter what one's view of descriptions, "Fa" and " $a = (\exists x)(x = a \bullet Fx)$ " express distinct facts. On a Russellean account of descriptions, for example, the first expresses an atomic fact, and the second expresses a general fact; on a referential theory of descriptions, the first expresses a monadic fact, and the second expresses a dyadic fact. Thus, Oppy concludes, we have plenty of reasons to reject ι -CONV as a valid rule of inference. And if we already have reason enough to reject ι -CONV, then the slingshot is no threat.

To adequately address this worry, we first need to consider Oppy's following remarks:

"My initial reaction to the informal version of Godel's slingshot is that it is pretty obvious that "Fa" and " $a = (\exists x)(x = a \bullet Fx)$ " express distinct facts, regardless of what one thinks of the semantics of definite descriptions—and this is what justifies my claim that it is more or less obvious that friends of facts have nothing to fear from souped-up versions of Godel's Slingshot. However, it is probably worth noting that I don't say that friends of facts *need* to say that "Fa" and " $a = (\exists x)(x = a \bullet Fx)$ " express distinct facts in order to look with scorn upon Godel's Slingshot. Consider, for example, those friends of facts who start from metaphysics, and who insist that facts are simply truth-makers. Such theorists might well say that "Fa" and " $a = (\exists x)(x = a \bullet Fx)$ " are made true by the same fact—namely, the instantiation of the property F by the object a. However, such theorists will also insist that " $a = (\exists x)(x = a \bullet xb)$ " [sic]²¹ is made true by a different fact—namely, the failure of the instantiation of the relation of identity between a and b (or, for those who don't like negative facts, the instantiation of the relation of distinctness between a and b)." (Oppy [1997] 128, emphasis his.)

First of all, I agree with Oppy that a theory of facts, independent of slingshot worries, need *not* be inclined to claim that "Fa" and " $a = (\exists x)(x = a \bullet Fx)$ " express distinct facts, especially if such a theory believes that facts are just (e.g.) truth makers. And I even agree with Oppy that such a fact theorist will maintain that "Fa" and " $a = (\exists x)(x = a \bullet x \neq b)$ " express distinct facts. Where I disagree with Oppy, however, is in his assumption that

²¹ This should be read: " $a = (\exists x)(x = a \bullet x \neq b)$ "

a fact theorist who adopts ι -CONV as a valid rule of inference must thereby maintain that “Fa” and “ $a = (\iota x)(x = a \bullet x \neq b)$ ” express the *same* fact.

We must be careful; the dialectic can get a bit tricky here. So let me try my best to be clear. At this point in the game, we are only worried about theories of facts that adopt ι -CONV (which, recall, is short for ι -INTR and ι -ELIM). A theory that adopts ι -CONV would have to maintain that “Fa” and “ $a = (\iota x)(x = a \bullet Fx)$ ” express the same fact since ι -INTR is what validates the move from line [10] to line [11] in the slingshot argument. However, it is not clear why a fact theorist who accepts (only) ι -CONV would have to maintain that “Fa” and “ $a = (\iota x)(x = a \bullet x \neq b)$ ” express the same fact, since what validates *this* move in the argument—i.e., what validates the move from line [11] to line [12] in the argument—is ι -SUB, not ι -CONV. So a fact theorist that adopts ι -CONV, but not ι -SUB, would *not* have to maintain that “Fa” and “ $a = (\iota x)(x = a \bullet x \neq b)$ ” express the same fact.

A fact theorist who accepted ι -CONV *and* ι -SUB, on the other hand, *would* have to claim that “Fa” and “ $a = (\iota x)(x = a \bullet x \neq b)$ ” express the same fact, but this should not be surprising at all. For this is exactly what the slingshot argument was designed to show! Namely, that any fact theorist who adopted both ι -CONV *and* ι -SUB would encounter a metaphysical collapse, making all facts crumple into one.

To back up a bit, let’s first take a look at how a theory of facts that adopts ι -CONV could plausibly maintain that “Fa” and “ $a = (\iota x)(x = a \bullet Fx)$ ” express the same fact. In Neale and Dever (1997)²² and Neale (2001), considerable effort is made, in light of Oppy’s attempted objection, to back up the claim that plausible theories of facts would

²² Stephen Neale and Josh Dever, “Slingshots and Boomerangs,” *Mind* vol. 106, 421, Jan. 1997.

(and in fact do!) accept ι -CONV. The primary move is to point out all of those theories that take a more metaphysical—as opposed to linguistic—approach to one’s theory of facts. Neale maintains that there are enough of these sorts of theories of facts out there to merit the slingshot as philosophically significant.

Wittgenstein in the *Tractatus*, Neale reminds us, purportedly subscribes to a theory such that there are only atomic facts, and that logically equivalent facts stand for the same fact. That is, Neale maintains that Wittgenstein is committed to a theory of facts where “ p ” and “ $\sim\sim p$ ” stand the same fact. If this is right, Neale argues, then this would be an example of a view where (e.g.) “ Fa ” and “ $a = (\iota x)(x = a \bullet Fx)$ ” do not express distinct facts. Hence, he continues, this would be at least one view of facts that would admit ι -CONV as a valid rule of inference. As Neale further points out, however, Wittgenstein also seems to subscribe to a Russellean treatment of definite description, so his theory of facts will ultimately be unthreatened by the slingshot. (Of course, as I hope I have shown, adopting a Russellean treatment of definite descriptions will not be enough to get one out of trouble. But the important point at this juncture, is that, *contra* Oppy, there is at least one plausible theory of facts that is $+\iota$ -CONV.)

But wait! There’s more. Neale thinks that Wittgenstein is just the first in a long line of examples of theories of facts that seem to approach their theory from metaphysical considerations rather than linguistic ones. Prior (1948), Neale claims, builds a theory on Wittgenstein’s that also denies that “ Fa ” and “ $a = (\iota x)(x = a \bullet Fx)$ ” express distinct facts. Wilson (1959, 1974) denies this as well, and, interestingly, denies a Russellean treatment of definite descriptions, thus leading him to fall prey to the slingshot and a devastating metaphysical collapse. Finally, Neale continues, there are Austinian theories of facts,

where what is important is the truth-making aspect of facts, not the “structural correspondence between the words used to make a true statement and a fact.”²³

Consequently, Neale claims, this is yet another example of a theory of facts that would countenance ι -CONV as a valid rule of inference.

What Neale says here seems right to me: there are enough theories of facts out there that are $+\iota$ -CONV that it is much too quick for Oppy to claim that no plausible theory of facts would be $+\iota$ -CONV.

However, Oppy vehemently disagrees; he thinks that none of these theories of facts that Neale has outlined are even *prima facie* plausible.²⁴ But recall that this is because he thinks that such theories have to maintain that “Fa” and “a = $(\iota x)(x = a \bullet x \neq b)$ ” express the same fact. As I hope I have explained adequately above, however, we should not expect that a fact theorist who adopts (only) ι -CONV would be committed to the claim that “Fa” and “a = $(\iota x)(x = a \bullet x \neq b)$ ” express the same fact, since it is ι -SUB (together with ι -CONV) that would commit one to such a conclusion.

Yet, again, this is exactly what the slingshot is intended to show. Indeed, if the Slingshot does its job right, and these theories do fall prey to it because of the inference rules that they deem valid for, then they *will* be shown to have an absurd metaphysical result.

An opponent of either Neale’s reformulated slingshot or mine should be careful not to make the following kind of argument: “no plausible theory of facts would adopt ι -CONV since such a theory would have counterintuitive metaphysically-collapsing consequences”. For first, this isn’t quite right; a theory of facts would have to adopt ι -

²³ Neale and Dever (1997), 157.

²⁴ Oppy (2004).

SUB as well as ι -CONV in order for such metaphysical collapses to happen. But second, in order to keep things fair, we can't be judging the plausibility of a theory of facts *after* we have considered how it will fair against the Slingshot. For that would be to stack the deck against the Slingshot in the first place, making it so that *ipso facto*, no "plausible" theory of facts will fall prey to it. So this cannot be our reason for claiming that certain theories of facts are implausible.

Consequently, as far as I can tell, Neale has adequately shown that there are *plausible* theories of facts that are ι -CONV, so I will gladly side with him on this point against Oppy. In other words, Oppy's first worry is not a problem for me (nor for Neale for that matter).

Of course, where Neale and I differ (as far as this objection goes) is that I think that one cannot evade the wrath of the Slingshot simply by adopting a Russellean treatment of definite descriptions in the way that he claims. That is, I think that the problem of the slingshot runs much deeper than a mere theory of definite descriptions could hoist us out of. So, *contra* Neale, Wittgenstein and Wilson's theories of facts—along with however many others—are threatened by the slingshot, thus suffering a devastating metaphysical collapse.

VII. Some Things to Think About

I want to leave off with a few considerations that might be worth further elaboration some other time.

First, it might be wondered whether Kaplan's "dthat" can refer or pick out things that we can't see or aren't "acquainted" with, or whether it can pick out abstract or

unobservable entities. Kaplan himself doesn't say too much about this, but he does give an example that makes me confident that these cases are unproblematic. He claims that it should be an easy matter to assert *of* the first boy born in the 22nd century²⁵ and say of *him* that he will be bald by saying (6):

(6) Dthat ['the first boy born in the 22nd century'] will be bald.

If we can pick out something that doesn't exist yet, but presumably will sometime in the future, then we certainly need not be able to see or be acquainted with the thing we're trying to pick out. And if this is right, then there seems to be no problem picking out abstract or unobservable entities either, since, as far as acquaintance-relations go, we seem just as far-removed from them as we do things in the future.

This leads me to a second worry, however. One might think that *because* of what I've mentioned above—e.g., that in using “dthat” I can get an object-dependent proposition about things that don't exist now or are abstract or whatever—that this simply goes to show that “dthat” is an incoherent notion. I think there might be some interesting worries lurking here, but notice that it shouldn't be a problem for “dthat” alone. Indeed, I've only used this notion because it helped illustrate how the slingshot might be run without definite descriptions. I'm strongly inclined to think—although I have yet to work it out in detail—that any referential trick would have served my purposes just as well.

So, for example, if using an actuality operator, or introducing arbitrary names in place of descriptions, or letting things and objects simply stand in as names of themselves²⁶, etc., would have produced singular referring terms, yielding object-

²⁵ I've changed the example to make sense since the original was written in the 20th century.

²⁶ I have in mind here something like Lewis's Lagadonian language. See OPW p. ?

dependent propositions, then this would have proved my point equally well. The idea is simply that we get some sort of term that we are confident refers to objects directly, and we can run a slingshot using it. If this is right, however, than any worries that one has about “dthat” will have to generalize to all of the other numerous ways I might have rearmend the slingshot. If it turns out that there are serious worries about whether *any* terms can be genuinely referring terms, then this *will* be troublesome for me, and the thesis I’ve proposed here. But until I am convinced of such a view, I’m going to rest relatively easy knowing that there are several well accepted views about singular reference out there—Kaplan’s “dthat” being one among them.²⁷

Finally, one might be tempted by several recent proposals that claim that demonstratives, like definite descriptions, should be given Russellean treatment. Jeffrey King (2001)²⁸, for example, argues for just such a conclusion. However, there is an important difference between *complex* demonstratives and *simple* demonstratives. An example of a complex demonstrative is “that man drinking a martini” in (7):

(7) That man drinking a martini is drunk.

Notice that the NP in (7) is the entire expression “that man drinking a martini.” A simple demonstrative, however, is like “that” (8):

(8) That is suspicious.

Notice that in this case, “that” just is the entire NP. This is why Kaplan’s notion “dthat” is so helpful as far as concerns *simple* demonstratives; it illuminates how it is that context can help determine a referent in particular propositions.

²⁷ Thanks to Keith Simmons and Adam Sennet for discussion on this section.

²⁸ Jeffrey King (2001) “Complex Demonstratives” MIT press

As far as my interests in this paper are concerned, I am only worried about simple demonstratives, not complex ones. And as far as I can tell, all of the recent attempts to give a Russellian treatment of demonstratives are only concerned with complex demonstratives.²⁹ So until some plausible arguments surface for thinking that *simple* demonstratives should be given Russellian treatment, I am unbothered by these sorts of considerations. Moreover, as explained above, it is plausible that there is more than one way to do what I have done here—that is, any similar referential trick would have done the job. So even if it turns out that there are arguments for thinking that we should be Russellians about simple demonstratives, this will not be enough to circumvent the stronger claim of this paper; such a move would have to eliminate any other (similar) ways of getting to the same point as I have made here.

²⁹ Indeed, see King (2004) p. 171 where he explains that “Kaplan himself was more concerned the word ‘that’ occurring by itself as a noun phrase (‘That is a planet’) than with [complex demonstratives].”