

The Metaphysical Transparency of Truth

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It is also worthy of notice that the sentence ‘I smell the scent of violets’ has just the same content as the sentence ‘It is true that I smell the scent of violets’. So it seems, then, that nothing is added to the thought by my ascribing to it the property of truth.

Gottlob Frege, *Thoughts*, trans. A.M. and Marcelle Quinton

[T]here being a man reciprocates as to implication of existence with the true statement about it: if there is a man, the statement whereby we say that there is a man is true, and reciprocally – since if the statement whereby we say that there is a man is true, there is a man. And whereas the true statement is in no way the cause of the actual thing’s existence, the actual thing does seem in some way the cause of the statement’s being true: it is because the actual thing exists or does not that the statement is called true or false.

Aristotle, *Categories*, 14b14-22, trans. J.L. Ackrill

The epigraphs indicate two powerful insights about truth. Consider the statement

(1) There are human beings.

Aristotle’s claim is that this statement is true in virtue of there being human beings. We might generalize his point in this way: statements like (1), if true, are true in virtue of the facts they state. I will follow the literature in calling this the *correspondence intuition* [Horwich, 1990, pp. 111ff.].¹ Frege makes

¹Accepting the correspondence intuition does not immediately commit one to a full-blown correspondence theory of truth, since the intuition on its own is silent concerning whether truth is to be analyzed by, defined as, reduced to, or explicated in terms of correspondence to the facts.

two claims. First, he says, adapting his example, that

(2) It is true that there are human beings.

has just the same content as (1). Second, he says that ascribing truth “adds nothing” to the thing to which truth is ascribed.² Call the second of Frege’s two claims, the idea that truth ascriptions “add nothing,” the *transparency intuition*.

Both the correspondence intuition and the transparency intuition are powerful and plausible. But they appear to pull in opposite directions. It is difficult to see how the fact stated by (3) could obtain in virtue of the fact stated by (1), if the former adds nothing to what the latter says. For then, it would seem, the fact stated by the former just is the fact stated by the latter. But no fact obtains in virtue of itself. Thus, the correspondence intuition and the transparency intuition seem difficult to reconcile.

Philosophers have recognized this tension, and there are a number of strategies in the literature that attempt to deal with it. *Correspondence theorists* deny the transparency intuition, and offer theories on which (3) adds something metaphysically substantial to what is said by (1) [David, 2015]. *Transparency theories* deny the correspondence intuition, and, following Frege, claim that (3) is semantically or cognitively equivalent to (1) [Ayer, 1936, p. 51], [Field, 1992], [Ramsey, 1927]. Theorists whom I will call *deflationists* attempt to accommodate both intuitions, by arguing that, though (3) “adds something” to (1), what it adds is metaphysically lightweight.³

In this paper, I describe and defend a version of deflationism. Extant versions of deflationism offer an array of attempts to explain the sense in which truth ascriptions are lightweight. Some deflationists may deny that truth is a property. Others agree that it is a property, but insist that it is a logical property, and that makes it lightweight [Horwich, 1990] [Field, 1992]. Almost all endorse some variant of the contention that the totality of non-paradoxical Tarski biconditionals of the form

²In this paper, I often discuss the ascription of truth to *sentences*. So, I often focus, for instance, on

(3) ‘There are human beings’ is true

rather than on (2). Aristotle and Frege do not share this focus in the passages quoted in the epigraphs. But puzzles arise for ascriptions of truth to sentences that do not arise for truth ascriptions like (2); Litland’s puzzle, discussed in §3 below, provides an example. A virtue of the account sketched here is that it applies smoothly to both sorts of truth ascriptions, without controversial additional commitments.

³Not all who count themselves as deflationists in the literature accept the correspondence intuition. Field [1994], for instance, does not; Horwich [1990] does.

(4) S is true iff p

where S is a quotation-name of a sentence and ‘ p ’ translates S , “exhaust the nature” of truth. It is not clear what these claims come to. Here I outline a different form of deflationism, which I call a *metaphysical transparency theory*:⁴ I offer an account of the (entirely bearable) lightness of truth that is as clear as the notion of one fact’s obtaining in virtue of another.⁵ I then show how this account can be put to work solving certain puzzles involving the correspondence intuition that have recently been explored in the literature.

Here’s the plan. In the first section, I briefly review some preliminary reasons for discontent with transparency theories and extant developments of deflationary theories. I take these considerations to motivate an alternative view, which I outline in the second section. The third section shows how the view I have sketched solves some puzzles, and the fourth offers some concluding observations.

1 Transparency and its Discontents

Transparency theories attempt to do justice to the transparency intuition by claiming that truth ascriptions are semantically or cognitively equivalent to the sentences to which truth is ascribed. So, on a transparency theory

(3) ‘There are human beings’ is true

is semantically or cognitively equivalent to

(1) There are human beings.

⁴I am not attempting in this paper to characterize every position which marches under the banner “deflationism” in the literature, nor even to identify the core commitments of such positions. The ambitions of the paper, however, are not wholly disconnected from that literature. One important strand of deflationist thinking concerns the idea that truth ascriptions are “metaphysically lightweight” in a sense tied to the fact that truth plays no robust explanatory role. This paper is an attempt to develop that idea systematically, and explore its merits. See [Damnjanovic, 2005] and [Wyatt, 2016] for helpful discussions distinguishing this strand of deflationism from some others. I will indulge an occasional remark on points of contact or contrast between the view developed here and the positions characterized as deflationist in the literature. Outside the context of such remarks, my use of ‘deflationism’ and its cognates is governed by the terminological stipulation in the previous paragraph.

⁵What is on offer here is a theory of the *lightness* of truth: what truth’s being metaphysically lightweight comes to. I do not here offer an analysis of *the nature of truth*; at least, no theory is proposed here that purports to provide interesting necessary and sufficient conditions for something’s being true or to articulate the essence of truth. In this way, the theory explored in this paper differs from some of the more traditional attempts to define truth that might figure, *e.g.*, in a correspondence theory of truth.

What does this equivalence come to? There are a variety of classical expressions of the idea. Ramsey appeared to hold that (1) and (3) express the same proposition [Ramsey, 1927].⁶ Quine, characteristically, avoids talk of (and quantification over) propositions. He characterizes the semantic equivalence in terms of how sentences like (3) and (1) can be used. In the case at hand, he appears to hold that to use (3) is to say that there are humans. He sums up this use-theoretic account with a syntactic claim, that the truth predicate “is a device for disquotation” [Quine, 1970]. This suggests a third way in which (1) and (3) might be semantically equivalent: it might be that (3) is just a disguised form of (1): underneath the disguise, the real syntax of (3) is perspicuously displayed by (1). Another syntactically driven proposal holds that ‘true’ is a *prosentence*, anaphorically tied to a sentence or sentential quantifier that is its grammatical antecedent in a way analogous to that in which a pronoun is anaphorically tied to a noun or quantifier. On this view, (3) borrows its semantic value from (1) by virtue of being anaphorically tied to it [Grover et al., 1975].

All of these variations on a theme deny the correspondence intuition. There is little doubt that their proponents would regard this as an advantage of the view. The correspondence intuition, they might argue, is freighted with the baggage of a correspondence theory of truth. Insofar as a transparency theory avoids the dubious metaphysical ideas associated with a correspondence theory of truth, they would say, we would be well rid of it. They appear to have a point, as we shall see: accommodating the correspondence intuition seems to give rise to a number of related puzzles whose solution is difficult. Solving those puzzles is an advantage for a theory of truth. We might hope to solve all of them at a single stroke by denying the correspondence intuition.⁷

I myself find the correspondence intuition compelling enough that I would prefer to explore alternative solutions that accommodate it. Even if my sympathies are misplaced, however, transparency theories face problems of their own.

⁶Additionally, when truth ascriptions occur in a generalization like

(5) Everything Joe said is true

Ramsey contends that this expresses the higher-order claim

(6) For all p , if Joe said that p , then p is true.

Ramsey then contends that the semantic value for the quantified variable ‘ p ’ is a propositional function, which he identifies with the propositional function that is the semantic value of ‘ p is true’.

⁷Litland [forthcoming, §6.4] shows, however, that denying the correspondence intuition does not actually solve the puzzles discussed in §3.

First, it is implausible to think that (3) and (1) are semantically or cognitively equivalent, in any sense of “semantic equivalence” on which the background semantic theory is supposed to provide conditions that explain or rationalize speaker use, understanding, or inference. I can understand what my mathematically more sophisticated friends say when they tell me

(7) ‘Every elliptical equation can be correlated with a modular form’ is true without being in a position to understand

(8) Every elliptical equation can be correlated with a modular form.

I understand and rationally accept (7). Even so, it is plausible to think that someone who understands and rationally accepts (8) is in a position to draw inferences that I cannot, since I don’t understand what application of the notion indicated by ‘modular form’ requires.⁸

Transparency theorists are, of course, well aware of problems of this sort. One prominent response is to add a background assumption which limits the scope of the transparency theorist’s claim. The alleged semantic equivalent (8) of the truth ascription (7) must *translate* the sentence to which truth is ascribed into the idiolect of the speaker. Assuming that translation of this sort requires equivalence with respect to explaining or rationalizing use, understanding, and inference, problem cases of the sort sketched above will not arise. The cost, of course, is that the scope of the transparency theory is thereby severely restricted.⁹ As the example involving (7) and (8) shows, our truth ascriptions often range beyond sentences that have translations into our own idiolects.¹⁰ What’s more, such truth ascriptions play an important role in certain explanations of the cognitive and practical successes of others. So, for instance, I am told that Andrew Wiles’s strategy for proving Fermat’s last theorem works in part because (8), the Taniyama-Shimura conjecture, is true. Thus, the truth ascription (7) plays a role in my explanation of the success of a certain proof

⁸Grover, Camp, and Belnap discuss these difficulties [Grover et al., 1975, pp. 102-3].

⁹Field is explicit on this limitation [Field, 1992, p. 325]. For the sake of brevity, I have used examples in the main text that involve the ascription of truth to particular sentences; the discussion in the literature often focuses instead on generalizations ascribing truth to sentences of a certain kind, and on generalizations ascribing truth-conditions to particular agents’ belief states.

¹⁰Heck [2004], for instance, argues that the ascription of truth to utterances of context-sensitive sentences provide cases in which, even though we understand the sentences uttered, the context-sensitivity prevents translation into our idiolect of those sentences. So, Heck argues, even for sentences we ourselves understand, truth ascription outstrips translatability.

strategy. It is difficult to see how such explanations could be accommodated by the sort of transparency theory which restricts the scope of my truth ascriptions to sentences translatable into my idiolect.¹¹

These problems are certainly not decisive reasons to reject transparency theories. Moreover, extant deflationists offer theories calculated to solve them. For instance, Horwich's now classical defense of deflationism in [Horwich, 1990] claims that a theory of truth consists in nothing more than the totality of non-paradoxical propositions expressed by sentences of the form

E $\langle p \rangle$ is true iff p

where the angle brackets are used to indicate the proposition expressed by the sentence p .¹² This view does not claim that truth ascriptions are semantically or cognitively indiscernible from that to which truth is ascribed; it does not claim, for instance, that (7) and (8) are semantically indiscernible. So, it avoids any problems that may attend such a claim.

There are two features of this strategy that are worth mentioning. First, in order to get a deflationary theory of truth for *sentences* (or for *utterances*, *sentences-in-contexts*, and the like), a deflationary theory of this sort must somehow link the biconditional propositions of the form given by (E) to the truth of sentences, utterances, or sentences-in-contexts. Horwich proposes for this purpose a particular theory of *utterance translation in context* on the basis of a use-theoretic conception of meaning. Then we can schematically describe a theory of which propositions are expressed by which utterances and a theory of truth for utterances:

Exp u expresses $\langle p \rangle$ iff the translation of u is an utterance of the same type as ' p '¹³

T If u expresses $\langle p \rangle$, then u is true iff $\langle p \rangle$ is true.[Horwich, 1990, pp. 105-9]

Needless to say, the use-theoretic account of translation is highly controversial, as is the adequacy of (Exp).

¹¹I take this point from [Field, 1992, p. 325].

¹²This schematic presentation cannot be restricted to actually existing English (or any other natural language), since, as Horwich notes, there are very many propositions of the right form that have no expression in any natural language. Horwich evades this problem by appealing to propositions expressible by possible extensions of English [Horwich, 1990, pp. 19-21].

¹³What does it take for an utterance in a given context to be of the same type as ' p '? And what does it take for a (possible) utterance to translate u ? These are difficult questions for Horwich; see [Horwich, 1990, pp. 105ff.].

There is a second feature of the deflationist strategy worth noting. Even if such a theory could be defended, one might wonder how it captures the original transparency intuition. It was clear on transparency theories how truth ascriptions “add nothing” to that to which truth is ascribed. It is not so clear on deflationism how that intuition might be captured. The deflationist’s theory of truth takes ‘true’ as a primitive expression. By itself, this result would not vindicate the idea that truth ascriptions “add nothing” to those claims to which they ascribe truth. One might insist that truth is “metaphysically lightweight,” but that metaphor clearly needs explication.¹⁴

The mystery is lessened, perhaps, if we attend to the use to which deflationist theories are put. Briefly, deflationism is used to show that truth ascriptions *play no robust explanatory role whatsoever*. One might have hoped or feared that the ascription of truth will play an important role in a variety of philosophically important enterprises. For instance, one might have thought that truth ascription will play an important role in explaining and defending realism about a certain swath of discourse, the validity of certain logical inferences, or the nature and value of successful inquiry. Deflationists have proposed that these issues are clarified and progress made possible when we recognize that the role of truth in such explanations is very minimal: truth ascriptions serve in such explanations simply to stand in for the things to which truth is ascribed. They have no explanatory role to play, other than as devices to summarize and generalize the import of the claims to which truth is ascribed. In an instance of (E) like

(9) ‘Snow is white’ is true iff snow is white

the left-hand side exerts no explanatory *oomph*. Instead, its role in giving explanations is exhausted by its serving to indicate those representation-independent conditions which actually do the explaining. In this sense, the left-hand side “adds nothing,” metaphysically speaking, to the right-hand side.

An example may help illustrate the plausibility of the idea that truth-ascriptions play no robust explanatory role. One explanatory role claimed for

¹⁴Horwich himself claims that truth is not a “complex” property, and that no naturalistic analysis of it is either possible or necessary [Horwich, 1990, p. 39]. It is not clear how this would make truth metaphysically lightweight. G.E. Moore, for instance, is famous for claiming that goodness is not susceptible of naturalistic analysis, and presumably he might be brought to agree that it is not “complex” in the sense Horwich intends. But Moore’s view cannot be characterized as claiming that “good” adds nothing to any natural property with which it co-varies. This point is pressed in [Stoljar and Damnjanovic, 2014, §7.6].

truth is that certain scientific theories are useful because they are true (or nearly true). For instance, the GPS system relies on the General Theory of Relativity. The GPS system is successful in getting us around in part because that theory is true. Deflationists have pointed out that, if we have an explicit formulation of the General Theory of Relativity on offer, then the appeal to truth is otiose. Instead of saying that the General Theory of Relativity is useful because it is true (or nearly true), we might more perspicuously say that the theory that mass warps spacetime, *etc.*, is useful because mass warps spacetime, *etc.*¹⁵ What explains the success of the GPS system are the features of physical reality, rather than the features of a certain theory about physical reality. Appeal to the truth of a certain representational entity, the theory, serves simply to point us toward the relevant features of physical reality when stating them is either impossible or inconvenient. In this sense, the truth ascription is a mere placeholder for a statement of those representation-independent physical conditions which actually do the explanatory work.

The idea that truth ascriptions play no robust explanatory role is obviously still in need of clarification and defense. It is clear enough, however, to illustrate something strange about the way the debates over transparency theories and their deflationist successors have proceeded. One way in which truth ascriptions might fail to play any robust explanatory role is by their being semantically or cognitively equivalent to sentences which do not ascribe truth [Field, 1994]. But this is only one way for truth to play no robust explanatory role. As we have seen, this way of carrying out the idea entangles us in semantic and psychological claims involving truth ascriptions like

(7) ‘Every elliptical equation can be correlated with a modular form’ is true

that turn out to be problematic. Moving to a deflationary theory to deal with those problems involves us in further disputes about the semantics of certain expressions, a theory of utterance translation, and the like. How, one might wonder, did we end up with these messy questions concerning meaning, inference, rationality, behavior, and translation when our starting point concerned the explanatory vacuity of truth? These epistemic and semantic entanglements

¹⁵This example is adapted from [Horwich, 1990, pp.49-50]. The centrality of the explanatory vacuity of truth to deflationary views is also indicated by the fact that one of the most serious worries about deflationism according to its proponents is that, when the representations we deploy are true, their truth seems to explain our successful navigation of the world [Field, 1992, p. 329].

seem like a distraction if what we sought in the first place was a theory which explained the way in which truth is *metaphysically* thin.

So, extant transparency theories and their deflationary successors face difficulties stemming from their cognitive and semantic entanglements. However, even if these difficulties can form the basis of decisive objections to transparency theories, it would be too hasty for a correspondence theorist to claim that they motivate abandoning the transparency intuition entirely. We should, instead, explore views on which truth ascriptions “add nothing,” metaphysically speaking, to what is said to be true, and let the semantic, cognitive, and behavioral chips fall where they may. That is, we should explore views which are silent on the semantic or cognitive transparency of truth ascriptions, but which claim instead that they are *metaphysically transparent*.¹⁶ We might hope thereby to find a theory that accommodates the transparency intuition, but also is compatible with a wide range of plausible views on the meanings of truth ascriptions and the inferences and behavior that their acceptance brings with it.

This task is made difficult by the obscurity of the idea that truth ascriptions are “metaphysically transparent,” that they add nothing, metaphysically speaking, to the things to which they ascribe truth. How are we to make sense of this idea? As the remarks above suggest, I think a fruitful way forward is to put the explanatory role of truth ascriptions front and center.

2 The Explanatory Role of Truth

Before I state the view, it is worth being explicit about my terminology and background assumptions. I have been using ‘explains’ and its cognates loosely. In philosophical parlance, ‘explanation’ is often used to indicate a broad array of linguistic and extra-linguistic entities. From now on I will use ‘explanation’ to indicate a class of *sentences* which deploy explanatory locutions. For example,

(10) ‘There are human beings’ is true because there are human beings

¹⁶The notion I have expressed using the phrase ‘metaphysical transparency’ is very different from the notion expressed using the same phrase by [Damjanovic, 2010] and [Lynch, 2009, pp. 106-7]. In particular, Damjanovic and Lynch use the label for an epistemically-involved claim to the effect that the ordinary concept of truth tells us everything there is to know about the nature or essence of truth. The view I develop, as we will see, is neutral on such epistemic and conceptual matters.

is an explanation, in the sense I intend here. Moreover, I will be ignoring those sentences whose explanatory locutions are epistemic or merely causal, to focus instead on what have come to be called *grounding explanations*. Grounding explanations tell us what obtains in virtue of what. Philosophers and scientists are fond of asking for explanations of this kind: “In virtue of what is murder wrong?” “In virtue of what am I justified in believing that I have hands?” “What makes diamonds hard?” Answering any of these questions involves asserting a grounding explanation, in the sense in play here.

Grounding has its critics [Wilson, 2014], [Daly, 2012], [Sider, 2011, §§7.2, 8.2.1]. Nevertheless, I will be making liberal use of grounding locutions and notation in this paper. In part this is because theorists of ground have, in my view, provided the clearest framework within which to express and discuss the explanatory role of truth. This work has made it particularly easy, as we will see, to state and discuss the puzzles which arise from the correspondence intuition. They also make it very easy to state the solution I propose. But there is another, less mercenary reason: it seems to me that, even if the critics turn out to be right, some successor notion to grounding is needed. The explanatory questions that structure philosophical and scientific theorizing are not going away. More particularly, the correspondence and transparency intuitions are not going away. If grounding locutions are not suitable for framing and discussing the metaphysical transparency of truth, then, it seems to me, some successor notions obeying analogous principles will have to serve instead.¹⁷

What’s more, I will assume that every grounding explanation is backed by an explanatory argument. That is, if a grounding explanation of the form

(11) ϕ in virtue of the facts that ψ_0 , that ψ_1 , ...

is true, then there is an argument whose conclusion is ϕ , and with premises ψ_0, ψ_1, \dots , and in which each of the inferences from the ψ_i to ϕ is explanatory.¹⁸

To illustrate, consider

¹⁷Some of the critics agree. Sider [2011], for instance, is happy to use the ‘in virtue of’ locution; he just gives it an interpretation in terms of what he calls “metaphysical truth conditions.” Wilson [2014] seems less happy with the ‘in virtue of’ locution, but she would admit its appropriateness as a kind of generic stand-in for any one of an array of specific notions that, in her view, do the metaphysical work in any particular case. In the interest of brevity, I will leave it to those who sympathize with these critics to replace my talk of grounding below with whatever successor notions are most suitable, and to assess the plausibility of the various principles that result.

¹⁸This assumption is shared with the deductive-nomological account of explanation [Hempel and Oppenheim, 1948]. I am not, however, signing on to the deductive-nomological account in detail; in particular, I do not require the arguments in question be *deductive*, nor that they

(12) (Either it's windy or it's snowing) in virtue of the fact that it's windy.

(12) is true. This explanation is backed by the explanatory argument

It's windy
Either it's windy or it's snowing

Similarly, one way to tell that

(13) It's windy in virtue of the fact that it's both snowy and windy

is not a true grounding explanation is to note that

It's both snowy and windy
It's windy

while valid, is not an explanatory argument.

I know of no helpful analysis of the distinction between explanatory and non-explanatory inferences. The examples show, nonetheless, that, in at least some cases, we have a fairly firm grip on the difference. Our grip does not consist exclusively in our grip on the truth of the corresponding grounding explanations, for being backed by an explanatory argument is only a necessary condition for a good grounding explanation. Suppose it's neither windy nor snowing. Then (12) is not true. Nevertheless, it's easy to tell that the argument backing it contains only explanatory inferences. That argument has what it takes to back a grounding explanation, so long as the facts cooperate. Similarly, you don't need a weatherman to know that (13) cannot be right. In general, some inferences have what it takes to trace the direction of the sort of dependence and determination indicated by 'in virtue of', so long as the other necessary conditions for such explanations are in place. Instances of disjunction introduction seem to be inferences of this sort. Other inferences clearly do not. Instances of conjunction elimination provide examples. Clearly, one such necessary condition is engendered by the factivity of grounding explanation: the inferences of any backing argument must proceed from true premises to a true conclusion. As we will see, there is another necessary condition on the view I will sketch.¹⁹

I will call an argument backing a grounding explanation an *explanatory story*. An explanatory story is *good* iff each of its inferences is explanatory; so, we allow that the argument above involving conjunction elimination is an explanatory

be *nomological* – laws need play no special role. So, one way of summarizing the import of my assumption is that I endorse the deductive-nomological account of explanation, except to the extent that it is deductive or nomological.

¹⁹Thanks to [PHILOSOPHER] for discussion of the issues raised in this paragraph.

story, but deny that it is a good explanatory story. An explanatory story whose conclusion is ϕ is an *explanatory story for ϕ* . Thus, only good explanatory stories for ϕ back true grounding explanations whose *explanandum* is ϕ .

Finally, I will assume that sentences which figure in grounding explanations express facts, and that a given grounding explanation is true iff there is a grounding relation among those facts. On this picture, grounding is, in the first instance, a relation of dependence and determination among facts. When a fact depends on and is determined by some other facts, then a corresponding grounding explanation is true.²⁰ So, we are dealing with two structures. First, we have explanatory relations among sentences, organized by the structure of explanatory inferences. Second, we have grounding relations among facts, organized by a structure of dependence and determination. The metaphysical transparency theory I will describe exploits a certain kind of mismatch between these structures.

With these assumptions in place it is simple to state the metaphysical transparency theory. The correspondence intuition is accommodated by endorsing the claim that the fact stated by

(3) ‘There are human beings’ is true

is grounded in that stated by

(1) There are human beings

together with the facts concerning what the sentence ‘there are human beings’ means. Thus,

(14) ‘There are human beings’ is true partly in virtue of the fact that there are human beings

is a true grounding explanation. For the sake of brevity and clarity, let’s use ‘ $\phi \prec \psi$ ’ to abbreviate ‘ ψ partly in virtue of the fact that ϕ ’ and ‘ $\phi < \psi$ ’ to abbreviate ‘ ψ in virtue of the fact that ϕ ’. The former we call a claim of *partial*

²⁰Even theorists who express reservations in theory about the idea that grounding relates facts are happy to talk as if it does. Fine [2001], for instance, contends that, strictly speaking, we don’t need to reify facts and claim that grounding is a relation between them in order to give a theory of ground; we may instead treat talk of grounding’s being a relation between facts as a mere *façon de parler*. Fine argues that we should formalize our theory of ground by appeal to sentential operators which do not pick out any relation, and whose arguments, semantically speaking, do not pick out entities. Still, Fine’s formal semantic treatment in [Fine, 2012] appeals to an ontology of facts, sets of which serve as the values of an interpretation function applied to sentences.

ground and the latter *full ground*. A fact f partially grounds a fact g iff f is one of some facts that, collectively, fully ground g ; this claim includes the limit case in which f is the only one of those facts.²¹ Then, in accord with the correspondence intuition, the proposal I am considering endorses

(15) There are human beings \prec ‘There are human beings’ is true

and

(16) There are human beings $<$ it is true that there are human beings.²²

The view generalizes, of course, to other truth ascriptions.²³ In a broad class of cases, if a sentence P is true, and P says that ϕ , then the view claims

(18) $\phi \prec P$ is true

and

(19) $\phi <$ it is true that ϕ

are both true grounding explanations.²⁴

This accommodates the correspondence intuition. What about the transparency intuition? The metaphysical transparency theory claims that the role in grounding played by the fact stated by a truth ascription is exhausted by the correspondence intuition. That is, the correspondence intuition says all there is to be said about what the fact stated by a truth ascription grounds or is grounded by.²⁵ On this view, for instance, the only role in grounding played

²¹Thus, we accept that the partiality indicated by ‘ \prec ’ may be improper; perhaps then, it would be clearer to say ‘ \prec ’ corresponds to “(at least) partly (and maybe wholly) in virtue of.” In general, if an explanation of the form $\phi < \psi$ is true, then so is $\phi \prec \psi$.

²²It might plausibly be thought that these two claims are related. One way of explaining the relation is to endorse

(17) (‘There are human beings’ says that there are human beings and it is true that there are human beings) $<$ ‘There are human beings’ is true.

Then (15) can be obtained from (16) and (17) by the transitivity of full ground and the principle relating partial and full ground.

²³The generalization may be complicated by the presence of context-sensitive expressions in the language [Heck, 2004]. I am assuming that these complications can be handled somehow.

²⁴See n. 26 and n. 29 for an explicit delineation of the class.

²⁵More precisely, the correspondence intuition says all there is to be said about what the fact stated by a truth ascription grounds or is *immediately fully* grounded by. There may be mediate grounds for truth ascriptions that are yielded by the correspondence intuition on plausible ancillary premises. For instance, the truth of

(20) It is windy \prec ‘it is either windy or snowy’ is true

is consistent with the metaphysical transparency theory.

by the fact stated by (3) is that it is grounded by the fact stated by (1). In particular, the fact stated by (3) plays no role in grounding any further fact. Nothing depends on and is determined by that fact. This is the sense in which the facts stated by truth ascriptions play *no robust explanatory role* according to the metaphysical transparency theory.²⁶

This deflationary claim about the facts stated by truth ascriptions might seem implausible in light of the fact that truth ascriptions appear to play a role in explanatory inferences. Consider again the question of what makes the GPS system successful. A tempting proposal, recall, was to explain this (in part) by appealing to the truth of the General Theory of Relativity. It is not completely clear how the explanatory story that backs the grounding explanation is supposed to go. Plausibly, it might involve the inference

The General Theory of Relativity is true ————— The GPS system is successful.
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Suppose so.²⁷ Then we appear to have a truth ascription playing a supporting role in an explanatory story. If the structure of grounding relations among facts mirrors the structure of explanatory inferences among sentences, then the deflationary claim made by the metaphysical transparency theory is false.

Plausibility requires, then, that the metaphysical transparency theory identify a mismatch between the inferential structure of explanatory stories and the structure of grounding relations among facts. But we already have the notions needed to characterize that mismatch. The metaphysical transparency theory proposes that truth ascriptions can be premises in explanatory inferences, but their function in such inferences is to stand in for their grounds. Thus, though

The General Theory of Relativity is true ————— The GPS system is successful

is, we might grant, a perfectly fine explanatory inference, it does not back the grounding explanation

²⁶This aspect of the view requires exceptions to the schemas (18) and (19). For instance, if P is itself a truth ascription, then, according to the metaphysical transparency theory, the fact stated by P does not ground anything, including the fact that P is true. Thus, on the metaphysical transparency theory

(21) ‘There are human beings’ is true $\not\Leftarrow$ ‘‘There are human beings’ is true’ is true.

²⁷For the sake of clarity I have omitted from the statement of this inference certain ancillary premises concerning, *e.g.*, how the GPS system relies on the General Theory of Relativity. Plausibly, those ancillary premises would be required to fill out the explanatory story.

(22) The General Theory of Relativity is true \prec The GPS system is successful.

Instead, since the truth ascription is standing in for its grounds, one should apply the correspondence intuition to conclude

(23) Mass warps spacetime, *etc.* \prec The GPS system is successful.

We have already seen reason to suspect that, in the proposed explanation, the truth ascription

(24) The General Theory of Relativity is true

is a mere placeholder for non-semantic claims stating certain features of physical reality. This suspicion turns out to be right on target according to the metaphysical transparency theory.

This view can be developed systematically. Represent explanatory stories as (converse) trees where each node is decorated with a sentence, but allow that a branch may have infinitely many nodes. An explanatory story is *complete* iff all of its leaves are occupied by sentences that are *basic* in the sense that there is nothing from which they may be inferred in an explanatory inference.²⁸ Suppose we are given an explanatory story. A *completion* of that story is a complete explanatory story that (properly or improperly) extends it. For instance, assume that e is an electron, and

(25) e is spin-up

is basic. Further, suppose that

$\neg\neg(e \text{ is spin-up})$
$\neg\neg(e \text{ is spin-up}) \vee \text{I'm a monkey's uncle}$

is an explanatory story. Then, plausibly

$e \text{ is spin-up}$
$\neg\neg(e \text{ is spin-up})$
$\neg\neg(e \text{ is spin-up}) \vee \text{I'm a monkey's uncle}$

²⁸Notice that this specification of a complete explanatory story allows the possibility of branches with no initial node. Suppose, for instance, that there is infinite descent in the structure of dependence and determination among facts. Then, assuming that the target language has the resources to express all of the facts in an infinitely descending chain of grounds, the infinite descent may be mirrored by branches in complete explanatory stories that contain no underived premise. For discussion of the possibility of infinite descent, see [Bliss, 2013], [Fine, 2001], [Litland, 2016], [Rabin and Rabern, forthcoming], and [Schaffer, 2003].

is its completion. Furthermore, since this second explanatory story has no proper extension, it is its own completion.

In accord with the correspondence intuition, instances of

$$\boxed{\text{TRUTH-INTRODUCTION} \quad \frac{\phi}{\text{it is true that } \phi}}$$

are explanatory inferences. To accommodate the plausible claim that sentences ascribing truth may figure as premises in explanatory inferences, we allow that such sentences may occupy non-root nodes in complete explanatory stories. So, for instance, we allow that there is a complete explanatory story of the form

$$\boxed{\begin{array}{c} \dots \\ \hline \text{The General Theory of Relativity is true} \\ \hline \text{The GPS system is successful} \end{array}}$$

where the dots might be filled in by an argument tracing the relations of dependence and determination between certain fundamental features of physical reality and the truth of the General Theory of Relativity. In accord with the deflationary claim made by the metaphysical transparency theory, we mark nodes in a complete explanatory story derived by an application of TRUTH-INTRODUCTION as *conduit nodes*: the sentence occupying a conduit node serves as a mere placeholder in the explanatory story for those non-semantic claims that are its grounds. Suppose again that

$$\boxed{\begin{array}{c} \text{The General Theory of Relativity is true} \\ \hline \text{The GPS system is successful} \end{array}}$$

is an explanatory inference. If we extend this explanatory story to yield one of its completions, the truth-ascription will turn out to be a conduit node. Thus, the role of the truth-ascription in explanatory stories in which it figures is to serve as a mere placeholder for its physical grounds. When it appears as a premise in a good explanatory story, it indicates that whatever grounds the fact it states also grounds the fact stated by anything derived from it. In that sense, it serves as a mere conduit. Any descendant of a conduit node in a complete explanatory story is, as it were, fruit of a poisoned tree, and so also a conduit node. Then ϕ_0, ϕ_1, \dots ground ϕ iff there is a good explanatory story for ϕ containing only truths, whose leaves are occupied by ϕ_0, ϕ_1, \dots , and which has no good completion in which any of the leaf nodes are conduit nodes.²⁹

²⁹In n. 26, I noted that there are exceptions to the schemas (18) and (19), and thus to the general claim that truth ascriptions are grounded in the facts expressed by the sentences or

Intuitively, grounding claims are true when there’s a good explanatory story whose leaves contain only “chunky” truths that are not mere conduits for their grounds.

In summary, this theory comprises four claims:

1. Instances of TRUTH-INTRODUCTION are explanatory inferences.
2. Nodes in a complete explanatory story derived by an application of TRUTH-INTRODUCTION are conduit nodes.
3. Any descendant of a conduit node in a complete explanatory story is also a conduit node.
4. $\phi_0, \phi_1, \dots < \phi$ iff there is a good explanatory story for ϕ containing only truths, whose leaves are occupied by ϕ_0, ϕ_1, \dots , and which has no good completion in which any of the leaf nodes are conduit nodes.

Pictures are more efficient than words. Let’s suppose again that

(25) e is spin-up

is basic and was asserted by Joe. Then the following, we may assume, is a good explanatory story.

e is spin-up	
it is true that e is spin-up*	Joe said that e is spin-up
Joe said something true*	

Conduit nodes are marked with asterisks. Any completion of this argument will either terminate in basic grounds for the fact that Joe said that e is spin-up, or will have a branch tracing an infinitely descending chain of grounds for that fact. Make the plausible assumption that no such completion involves any application of TRUTH-INTRODUCTION.³⁰ On our assumptions, this explanatory story backs the grounding explanation

propositions to which they ascribe truth. These exceptions are cases in which the erstwhile grounds are themselves mere conduits. The systematic development of the metaphysical transparency theory in the main text implies that these are, in fact, the only cases in which those schemas fail. So, not every instance of the schemas is true, but the schemas hold in a broad class of cases, including all of the standard cases used to motivate the correspondence intuition. Thanks to [REDACTED].

³⁰This assumption is made solely for the purposes of illustration. But another, related claim is necessary if the metaphysical transparency theory is to have any plausibility: the fact expressed by ‘Joe said that e is spin-up’ must have a ground. Given the commitment to the metaphysical transparency of truth ascriptions and the correspondence between true grounding claims and the availability of a good explanatory story whose leaves are all “chunky”, this will require the availability of a good explanatory story for ‘Joe said that e is spin-up’ whose leaves are all “chunky”.

(26) e is spin-up, Joe says so < Joe said something true.

because it has no completion of the form

e is spin-up	...
it is true that e is spin-up*	Joe said that e is spin-up
Joe said something true*	

where the nodes containing ‘ e is spin-up’ and ‘Joe said that e is spin-up’ are mere conduits. Moreover, since the node containing

(27) It is true that e is spin-up

is a mere conduit node, the metaphysical transparency theory entails that no explanatory story backs the grounding explanation

(28) It is true that e is spin-up, Joe says that e is spin-up < Joe said something true.

So, that grounding explanation is false. Suppose now that e' is a spin-down electron, and consider the following explanatory story

e is spin-up	Joe said that e is spin-up
it is true that e is spin-up*	Joe said that e is spin-up
it is true that e is spin-up and Joe said that e is spin-up*	
Joe said something true*	
Joe said something true or e' is spin-down*	

As above, no explanatory story backs a grounding explanation

(29) Joe said something true < either Joe said something true or e is spin-down.

But this explanatory story does back

(30) e is spin-up, Joe said so < either Joe said something true or e' is spin-down.

Moreover, another explanatory story

e' is spin-down
Joe said something true or e' is spin-down

backs

(31) e' is spin-down < either Joe said something true or e' is spin-down.

This is the metaphysical transparency theory. I take it to be supported in some measure by the fact that it accommodates both the correspondence intuition and the transparency intuition. The theory captures the correspondence intuition straightforwardly, by entailing the truth of explanations like

(16) There are human beings < it is true that there are human beings.

The transparency intuition is also captured. Suppose again that we want to know what makes it the case that the GPS system is successful. Recall the plausibility of appealing to the truth of the General Theory of Relativity in answering our question. The view at hand does particular justice to the transparency intuition by holding that

(24) the General Theory of Relativity is true

is serving in any explanatory story we may give as a placeholder – a mere conduit – for the non-semantic claim that mass warps spacetime, *etc.* Thus, the truth of the General Theory of Relativity plays no robust explanatory role. Similarly, the metaphysical transparency theory says that the fact expressed by

(2) It is true that there are human beings.

plays no robust explanatory role; instead, whatever explanatory work one might have thought that fact does is done instead by the fact expressed by

(1) There are human beings.

In this sense, (2) “adds nothing” to (1), and truth is “metaphysically lightweight.”³¹

The metaphysical transparency theory is advertised as a new kind of deflationism about truth. It might be objected, however, that it does not do justice to the intentions of a certain kind of deflationist. Deflationists of this ilk insist that truth ascriptions are “metaphysically lightweight” in approximately the way that conjunctions and disjunctions are. They contend that the nature of,

³¹This is the only sense in which the metaphysical transparency theory entails that (2) “adds nothing” to (1). As I have emphasized, the metaphysical transparency theory makes no commitment on whether (2) “adds something,” semantically or cognitively speaking, to (1). I have characterized the transparency intuition as the plausible thought that, *in some sense*, (2) “adds nothing” to (1). If one thinks, contrary to the presentation in this paper, that the key intuition is the more finely grained idea that (1) and (2) are semantically or cognitively equivalent, then the metaphysical transparency theory does not, on its own, deliver the goods. For what it’s worth, I don’t think we really have such a fine-grained intuition.

say, disjunction is exhausted by the introduction and elimination rules for disjunction. Similarly, they might argue, the nature of truth is exhausted, either by the instances of (E) or the corresponding introduction and elimination rules for ‘true’.³² I have said several times already that the sense in which truth is “lightweight” needs clarification, and I have argued that the metaphysical transparency theory fills that need. Still, it might be held that, insofar as the metaphysical transparency theory treats the facts expressed by truth ascriptions as “lightweight” and those expressed by some disjunctions as “chunky,” it does not capture the intentions of deflationists.

It must be admitted that the metaphysical transparency theory fails to realize every aspiration of every deflationist (and, perhaps, fails to realize every aspiration of any deflationist).³³ It does, however, capture the transparency intuition, which guides my sense of what’s required for an adequate explication of the sense in which truth is “metaphysically lightweight.” I believe that it would be implausible to hold the analogue of the transparency intuition for disjunctions. In my estimation, since

(32) It is either snowy or windy

doesn’t even have the same intension as

(33) It is windy.

the analogue of the transparency intuition in this case is implausible. So, the relevant sense in which truth-ascriptions are “metaphysically lightweight” is not, I think, a sense in which disjunctions are. Suppose, however, that I am wrong about this, and the analogue for disjunctions of the transparency intuition is plausible. Then the metaphysical transparency theory can be extended in the obvious way to yield the conclusion that disjunctions are “metaphysically lightweight” in just the same way as truth ascriptions. So, there is no bar in

³²I have not found any actual deflationists or transparency theorists explicitly endorsing this claim. But this interpretation would make sense of their contention that truth is a “logical” property; see [Horwich, 1990], [Field, 1992, 1994].

³³Among other things, the metaphysical transparency theory does not reserve any special role for instances of the schema (E), a hallmark of many views characterized as deflationary in the literature. For this reason, it does not fit the (somewhat stipulative) characterization of deflationism given at [Eklund, 2010, pp. 30-31]; instead, it is closely related to the view Eklund calls *sophisticated rejectionism*, on which, roughly, the truth predicate plays no robust role in serious theorizing aside from expressing commitment to a large class of instances of (E).

principle to treating truth ascriptions and disjunctions on a par, if that should turn out to be necessary.³⁴

Given that the metaphysical transparency theory can be generalized to yield a view on which disjunctions, like truth ascriptions, are “metaphysically lightweight,” one might wonder about other, more radical generalizations. One might wonder, for instance, whether every fully grounded truth has the feature that the metaphysical transparency theory attributes to truth ascriptions. Call this view the *generalized transparency theory*. On the generalized transparency theory, the facts expressed by fully grounded truths ground nothing; and, though fully grounded truths figure in explanatory arguments, they serve in those arguments as mere placeholders for their grounds.³⁵

The generalized transparency theory is implausible. We have seen that the transparency intuition is highly plausible, as was illustrated by the fact that the truth of the General Theory of Relativity was, on reflection, not among the grounds of the success of the GPS system. By contrast, the analogue of the transparency intuition for other fully grounded claims is implausible. Suppose, for instance, that the wrongness of telling lies (in circumstances C) is fully grounded in some further facts. It seems implausible to think that

(34) It is wrong to tell lies (in circumstances C)

“adds nothing,” metaphysically speaking, to whatever grounds it, *e.g.*,

(35) Telling lies (in C) produces less utility than some other course of action.

In particular, it is implausible to think that (34) itself does no further explanatory work, but instead serves merely as a placeholder for its grounds in explanatory arguments in which it figures. So, to adapt an example discussed by Simon Blackburn, it is highly plausible to think that it is wrong to get your little brother to tell lies (in C) partly in virtue of its being wrong to tell lies (in C) [Blackburn, 1984]. Something similar goes for facts involving genes or clades. So, for instance, a truth of the form

(36) These soybean seeds have gene G

³⁴Thanks to [PHILOSOPHERS] for discussion of the issues raised here. See [REDACTED] for an explication of a completely different sense in which disjunctions or other claims might turn out to be “metaphysically lightweight.”

³⁵Thanks to [PHILOSOPHER] for suggesting this generalization of the metaphysical transparency theory.

is as “chunky” as one could hope for, even though the fact it expresses is, presumably, fully grounded by certain physical and chemical facts. It appears, for instance, that one such truth expresses a fact that partially grounds the fact that plants grown from certain seeds are “Roundup ready” – that is, resistant to certain herbicides.

I conclude that, though the metaphysical transparency theory can be generalized, considerations of plausibility set bounds on how far such a generalization should go. Nevertheless, it is clear that the metaphysical transparency theory gives anyone who has the analogue of the transparency intuition about any class of facts which can be characterized as those expressed by some class of explanatory inferences the resources to develop a view that captures that intuition.³⁶

So, both the correspondence intuition and the transparency intuition are explicated and accommodated by the metaphysical transparency theory. Moreover, unlike more familiar transparency theses and their deflationary successors, it does so without taking a detour through a theory of the psychological or semantic role played by truth-ascriptions. So, it is compatible with a wide range of plausible views on the meanings of truth ascriptions and the inferences and behavior that their acceptance brings with it. Finally, the sense in which a truth ascription “adds nothing,” metaphysically speaking, to that to which truth is ascribed is as clear as the ground-theoretic notions in play.

These considerations strike me as powerful reasons in favor of the metaphysical transparency theory. Still, it may seem a somewhat incredible view. What I hope to show now is that the view performs well when applied to certain puzzles that have recently been discussed in the literature concerning how truth ascriptions are to be grounded.

³⁶Another generalization of the metaphysical transparency view bears mention. Transparency theorists and deflationists have explicitly concerned themselves with the claim that truth ascriptions play no robust role in *causal* explanations [Field, 1994], [Horwich, 1990]. The present view is, strictly speaking, expressed in terms of grounding explanations. The generalization of the metaphysical transparency theory to causal explanations is nevertheless fairly straightforward. The idea would be that, though facts expressed by truth-ascriptions don’t cause anything, their grounds do. Suppose, for instance, that you used a GPS device to navigate to your in-laws’ home for a holiday meal. The idea would be that the truth of the General Theory of Relativity plays no causal role in your arrival at your in-laws. Instead, the relevant aspects of physical reality play that causal role.

3 Two Puzzles

Both of the puzzles we will discuss involve an argument from highly plausible claims about ground and some innocent-looking assumptions to a claim that something (partially) grounds itself. An assumption of the puzzles, then, is that nothing even partially grounds itself. This assumption is highly plausible on the conception of ground which is in play. Any explanation of the form

$$(37) \quad \phi \text{ because } \phi, \dots$$

seems on its face transparently inadequate. The same goes, of course, for grounding explanations. A claim of the form

$$(38) \quad \phi \text{ in virtue of the fact that } \phi, \dots$$

seems clearly false.³⁷ If one nevertheless admits the possibility of partial self-grounding, then the erstwhile *puzzles* may turn out to be *results* which specify conditions under which something grounds itself.

The puzzles involve explanatory stories where each inference in the argument is, putatively, explanatory. The first puzzle, due to Kit Fine [2010], involves three apparently explanatory inferences. The first corresponds to the general idea that an instance of an existential generalization is a ground of the generalization. So, instances of

EXISTENTIAL INTRODUCTION $\frac{\phi(\tau)}{(\exists x)\phi[x/\tau]}$
--

are explanatory inferences. We have already supposed that instances of TRUTH-INTRODUCTION are explanatory. If p is a proposition, let $T(p)$ abbreviate ‘the proposition p is true’, and let q be the proposition that something is true, *i.e.*,

$$(39) \quad (\exists x)T(x).$$

The innocent-looking assumption is that q is true: some proposition is true. This assumption is verified by the fact, *e.g.*, that the proposition that $0 = 0$ is true.³⁸ Given our assumptions, the following is a good explanatory story containing only true sentences:

³⁷Jenkins [2011] describes a view on which grounding can relate a fact to itself. Still, no explanation of the form (38) is true on Jenkins’s view. Similarly, though Rodriguez-Pereyra [2015] argues that there are reflexive instances of grounding, none of those instances are reported by sentences of the form (38).

³⁸Fine offers another puzzle that uses the assumption that *every* proposition is *either* true *or not true* [Fine, 2010]. This assumption will not look innocent to anyone familiar with the vast literature on the law of the excluded middle and the semantic paradoxes. I don’t discuss this puzzle here because of the additional complexities it involves.

$$\frac{\frac{(\exists x)T(x)}{T(q)}}{(\exists x)T(x)}$$

Given that each inference is explanatory and each sentence is true, it is difficult to see how to avoid drawing the conclusion

$$(40) \quad (\exists x)T(x) \prec (\exists x)T(x).$$

Thus, the puzzle.

The metaphysical transparency theory avoids this puzzle. The explanatory story given above is not complete, so we may not infer from the existence of such a story anything about what grounds what, since for all we have said so far, one of the leaf nodes might fail to express a “chunky” fact. To see whether that is so, we need to look at the completions of this argument. One obvious completion is simply to chain the explanatory story to itself, *ad infinitum*:

$$\frac{\frac{\dots}{\frac{(\exists x)T(x)^*}{T(q)^*}}}{\frac{(\exists x)T(x)^*}{T(q)^*}}}{(\exists x)T(x)^*}$$

As above, asterisks mark conduit nodes in this explanatory story. This completion demonstrates that the leaf nodes of the original explanatory story are mere conduits, so that explanatory story backs no grounding explanations.

If we just said that, however, we would fall short of a satisfying solution to the puzzle, which plausibly requires that we offer a principled account of how the fact stated by (39) is grounded. This is easily obtained. Assume that $0 = 0$ is an ungrounded truth, let r be the proposition that $0 = 0$, and apply our explanatory inference rules to yield this explanatory story:

$$\frac{\frac{0 = 0}{T(r)^*}}{(\exists x)T(x)^*}$$

On our assumptions, this is a good, complete explanatory story containing only true sentences, yielding the plausible result that (39) is grounded in the fact that $0 = 0$.³⁹ A similar result can be obtained by using the fact that snow is white. In fact, any true sentence whose explanatory stories nowhere involve

³⁹The assumption that $0 = 0$ is ungrounded is made solely for the purposes of illustration. If $0 = 0$ turns out to be grounded in certain further facts, whatever those may be, then there

truth-ascriptions or other metaphysically transparent claims will do the trick. So, we have the satisfying solution we seek.

Fine [2010] discusses a similar puzzle involving the obtaining of facts: there is an explanatory story in which ‘Some fact obtains’ is derived from itself using EXISTENTIAL INTRODUCTION and

OBTAINING INTRODUCTION	$\frac{\phi}{\text{The fact that } \phi \text{ obtains.}}$
-------------------------------	--

The solution to this puzzle is to hold the analogue of the metaphysical transparency theory about the application of OBTAINING INTRODUCTION. Krämer [2013] poses a similar puzzle involving quantification into sentential position: there is an explanatory story in which ‘ $(\exists S)S$ ’ is derived from itself using

SENTQ INTRODUCTION	$\frac{\Phi(\psi)}{(\exists S)\Phi[S/\psi].}$
---------------------------	---

I find this puzzle harder to understand, since it is unclear to me what ‘ $(\exists S)S$ ’ means. Perhaps it’s clearer to you. In any case, if the puzzle turns out to be compelling, we have a solution available if we hold the analogue of the metaphysical transparency theory about applications of SENTQ INTRODUCTION.⁴⁰

The second puzzle, taken from [Litland, forthcoming], uses the assumption that grounding is *internal*: if some facts fully ground the fact that ϕ , then it is impossible for all of those facts, together with ϕ , to obtain without fully grounding ϕ . Suppose that, in the actual situation, we are presented with the following sentences, labeled as shown:

is a complete explanatory story witnessing this fact. Assume no complete explanatory story for ‘ $0 = 0$ ’ involves any metaphysically transparent claims. (If this assumption fails, we may adapt the illustration by using some other truth better suited for the task.) Then there is no complete explanatory story that can be chained with the explanatory story above to yield a complete explanatory story in which the node occupied by ‘ $0 = 0$ ’ is a conduit node.

⁴⁰The metaphysical transparency theory is in principle compatible traditional attempts to analyse truth of the sort exemplified by correspondence theories of truth. It nevertheless sits uneasily beside such attempts, since the combination of the metaphysical transparency theory with such an analysis seems to require that we motivate the claim that the proposed *analysans* is itself metaphysically transparent. But Krämer has shown that sentential quantification can give rise to the the very sorts of puzzles which support the metaphysical transparency theory of truth. For this reason, I have suggested, it is highly plausible to think that sentential quantification gives rise to metaphysical transparency so long as truth ascription does. If we accept my suggestion, then the resulting version of the metaphysical transparency theory can be easily combined with an analysis along lines similar to the proposal in [Hill, 2002, p. 22]:

S An object x is true iff $(\exists P)((x = \text{the thought that } P) \text{ and } P)$.

Hill interprets the resulting theory (which also accepts some instances of robust correspondence between truths and the world) as “fully deflationary in spirit” [Hill, 2001, p. 318].

(L_g) $0 = 0$

(R_g) (D) is true

(L) (L_g) is true

(R) (R_g) is true

(D) (L) is true or (R) is true.

Each of these sentences is straightforwardly true. The labels are chosen with the following mnemonic in mind: (D) is a *disjunction*; its *left*-hand disjunct is (L); its *right*-hand disjunct is (R); (L_g) is the *ground* for (L); and (R_g) is the *ground* for (R).

One important stipulation regarding the interpretation of these sentences bears mention. ‘(D)’ and the other sentence labels are not intended to be interpreted as names of the relevant sentences, but rather stand in for russellian definite descriptions. For instance, ‘(D) is true’ is to be interpreted as an abbreviation of the existential generalization

(41) There is something which is uniquely a sentence with label ‘(D)’, and every sentence with label ‘(D)’ is true.

This unexpected wrinkle ensures that (L) and (R) are existential generalizations. Like many other facts expressed by existential generalizations, this allows that they might have been grounded by facts other than the facts which actually ground them. The availability of other possible grounds for (L) and (R) turns out to be crucial for the statement of the puzzle.

What grounds what in the actual situation? Assume that ψ is true, and ϕ is true and has the label (τ) . Since instances of TRUTH-INTRODUCTION and EXISTENTIAL INTRODUCTION are explanatory inferences, it is plausible that any instance of either of the schemas

EXISTENTIAL GROUNDING $\phi(\alpha) \prec (\exists x)\phi(x)$

TRUTH GROUNDING $\phi \prec (\tau)$ is true

is also true. It is also plausible to hold that instances of

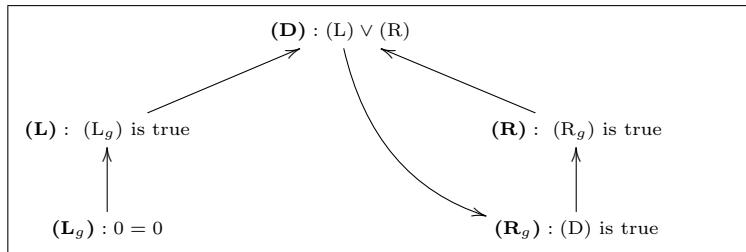
DISJUNCTION INTRODUCTION $\frac{\phi}{(\phi \vee \psi)} \quad \frac{\psi}{(\phi \vee \psi)}$

are explanatory inferences. So it is also plausible to think that instances of

LEFT DISJUNCTIVE GROUNDING $\phi < (\phi \vee \psi)$

RIGHT DISJUNCTIVE GROUNDING $\phi < (\psi \vee \phi)$

are true. This gives us (partial) grounding relations represented by the arrows in:

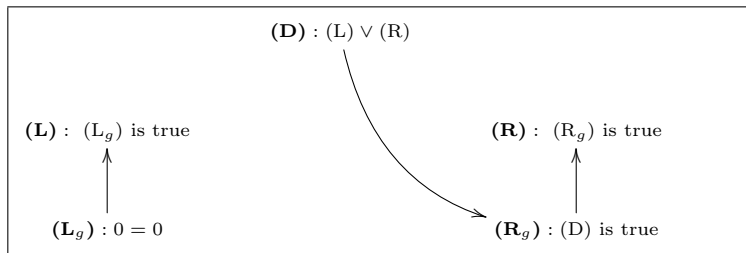


Because (partial) grounding is transitive and irreflexive, the presence of a cycle in the diagram indicates a contradiction.

Following Fine, Litland suggests that we may avoid this problem by denying the validity of LEFT and RIGHT DISJUNCTIVE GROUNDING. Assuming that $(\phi \vee \psi)$ is true, we should rely instead on the validity of

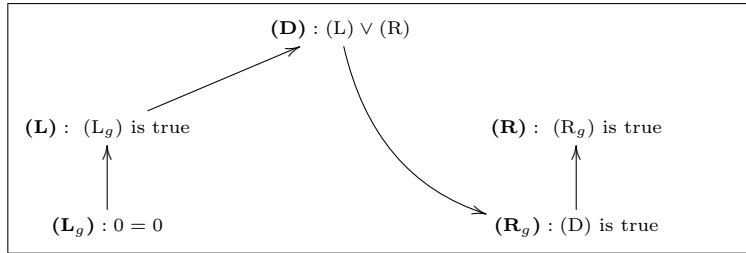
WEAK DISJUNCTIVE GROUNDING $\phi < (\phi \vee \psi)$ or $\psi < (\phi \vee \psi)$ ⁴¹

Then, the other grounding principles yield this picture



WEAK DISJUNCTIVE GROUNDING requires that we either draw an arrow from (L) to (D) or draw one from (R) to (D). If we drew one from (R) to (D), we would have a contradiction, so we must draw one from (L) to (D):

⁴¹A fully satisfying solution would offer a principled motivation for rejecting the stronger disjunctive grounding principles in favor of WEAK DISJUNCTIVE GROUNDING. Litland offers one, appealing to the *way* in which a fact obtains. Let's grant that the way a fact obtains is given by those of its explanatory stories which contain only true premises. Then, Litland suggests, the disjunctive grounding principles will fail when the way the disjunct obtains involves the disjunction. As the arrows indicate, the way that (R) obtains in the actual situation involves (D).

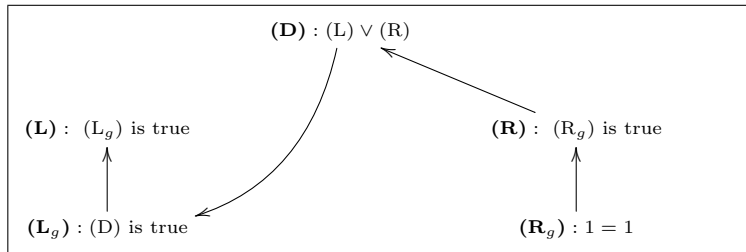


Now consider a counterfactual situation in which the sentences labeled ‘ (L_g) ’ and ‘ (R_g) ’ say something other than what they actually say:

(L_g) (D) is true.

(R_g) $1 = 1$

Assume that, in the counterfactual situation, the rest of the sentences are labeled as they actually are. Again, all of the sentences would be straightforwardly true in this situation. Application of our grounding principles yields this picture:



In this situation, (L) would not have (fully) grounded (D). So, (L) actually (fully) grounds (D), but might have co-obtained with (D) without grounding it. This contradicts internality.

There are a number of principles that one might reject in order to evade this puzzle. One might, for instance, simply give up on internality.⁴² An assumption of the puzzle, then, is that grounding is internal. If one denies this, then the erstwhile *puzzle* turns out to be a *result* which specifies conditions under which some fact f (fully) grounds another g , and it’s possible that both f and g obtain without f ’s (fully) grounding g .

However, the claim that grounding is internal is highly plausible on the conception of ground which is in play. Suppose we have an explanatory story involving only true sentences which backs a grounding explanation of the form

⁴²This is Litland’s solution, though he proposes a weaker sense in which ground turns out to be internal.

(42) $\phi < \psi$

Now consider a possible situation in which that explanatory story still involves only true sentences. In the actual situation, that very explanatory story had what it takes to back a grounding explanation. In particular, if we told this explanatory story, we would say only true things, and the inferences would genuinely trace the relations of dependence and determination leading from premises to conclusion. Now consider the possible situation. In the possible situation, none of the inferences fails to be explanatory. None of the sentences involved in the explanatory story are false. This means that we could still tell this explanatory story without saying anything false and without failing to explain the conclusion by appeal to the premises. It is hard to imagine what more could be required in the possible situation to establish a grounding explanation than to produce such an explanatory story.⁴³

But this abstract and impressionistic defense of internality confronts the problem posed by the puzzle. If there were no alternative, internality would have to go. Fortunately, there are a number of other principles in play, and denying any of those would evade the puzzle. In fact, the metaphysical transparency theory denies the validity of all of the grounding principles in play: when the left-hand side of an instance of any of EXISTENTIAL GROUNDING, TRUTH GROUNDING, and LEFT or RIGHT DISJUNCTIVE GROUNDING is a truth-ascription, the fact expressed does no grounding work whatsoever. Similarly, WEAK DISJUNCTIVE GROUNDING fails when both disjuncts are truth-ascriptions. This is the sense in which, according to the metaphysical transparency theory, truth is metaphysically lightweight. Even so, the metaphysical transparency theory is consistent with the plausible paradigm cases of grounding explanations involving existential generalizations, disjunctions, and truth-ascriptions which motivate theorists to propose these schemas. More generally, the view holds that the default case is one in which these schemas are valid. They fail only when some truth-ascription plays a supporting role in some explanatory story in the background. So, all of these principles fail, particularly in application to (L), (R), and (D).

If we just said that, however, we would fall short of a satisfying solution to the puzzle, which plausibly requires that we offer a principled account of how the facts stated by (D), (L), and (R) are grounded. This is easily obtained.

⁴³See [Bennett, 2011] for a different defense of internality.

Assume that $0 = 0$ is an ungrounded truth in the actual situation. Assume for illustration that instances of

STRUTH-INTRODUCTION $\frac{\phi \quad S \text{ says that } \phi}{S \text{ is true}}$

are explanatory inferences. On the metaphysical transparency theory, the conclusions of such inferences are mere conduits when they figure as further premises in some explanatory story: their function in such explanatory stories is to indicate that whatever grounds them also grounds what is derived from them. Assume that no complete explanatory story for ‘ S says that $0=0$ ’ involves a truth-ascription. Then, no completion of this explanatory story

$\frac{0 = 0 \quad (L_g) \text{ says that } 0 = 0}{(L): (L_g) \text{ is true}^*}$ <hr/> $(D): (L) \vee (R)^*$

makes either of the leaf nodes a conduit. Thus, this explanatory story will back a grounding explanation

(43) $0 = 0, (L_g) \text{ says that } 0 = 0 < (L_g) \text{ is true} \vee (R_g) \text{ is true.}$

Similarly, the explanatory story

$\frac{0 = 0 \quad (L_g) \text{ says that } 0 = 0}{(L): (L_g) \text{ is true}^*}$ <hr/> $(D): (L) \vee (R)^* \quad (D) \text{ says that } (L) \vee (R)$ <hr/> $(R_g): (D) \text{ is true}^*$
--

backs

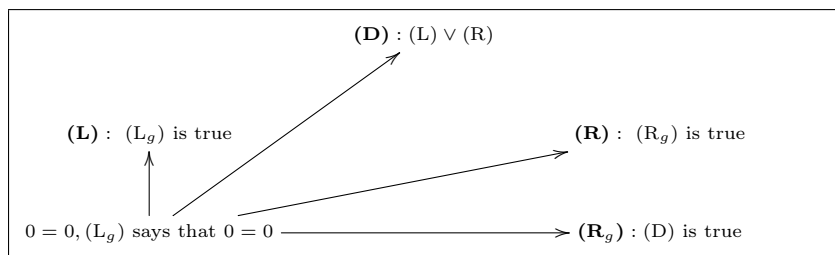
(44) $0 = 0, (L_g) \text{ says that } 0 = 0 < (D) \text{ is true.}$ ⁴⁴

Extending the explanatory story still further backs

(45) $0 = 0, (L_g) \text{ says that } 0 = 0 < (R_g) \text{ is true.}$

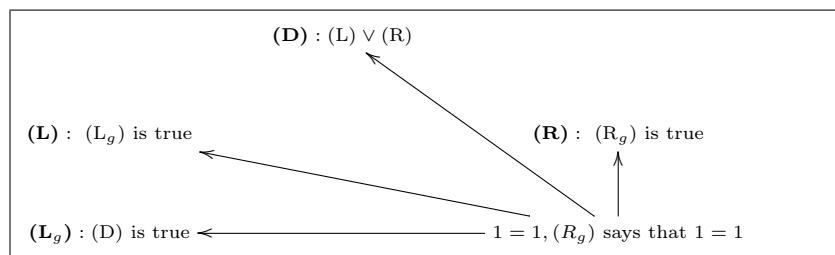
So, given our truth conditions for grounding explanations, here are the grounding relations in the actual situation:

⁴⁴To prevent clutter, I simplify this grounding claim and the one below by omitting the facts concerning what (D), (L), (R), *etc.*, say from the grounds.



This is a pleasing picture if we are at all tempted by the transparency intuition. The fact that $0 = 0$, together with the facts about what the sentences say, does all the grounding work; facts stated by truth-ascriptions do nothing, just as a deflationist says.

Something similar goes for the grounding relations in the possible situation:



Finally, there is no counter-example to internality here. (L_g) says something in the actual situation that it does not say in the counterfactual situation. So, the ground for (D) in the actual situation does not obtain in the counterfactual situation.

4 Conclusion

Our discussion of the metaphysical transparency theory has been brief. There is much that remains to be worked out, and alternative proposals to consider. Most obviously, nothing in our discussion so far addresses the semantic paradoxes in any way. One might think that those are the puzzles against which a theory of truth ought to be tested. I will leave the application of the metaphysical transparency theory to the semantic paradoxes for another time.⁴⁵

⁴⁵It may be worth noting that the present emphasis on complete explanatory stories comports well with Yablo's [1982] use of *dependence trees* to develop Kripke's [1975] theory.

Still, the puzzles we have encountered are interesting, and the solutions that the metaphysical transparency theory offers to them are attractive.⁴⁶ Together with the fact that the proposal offers a systematic and plausible approach to reconciling the correspondence and transparency intuitions, this gives us compelling reason to explore its merits.⁴⁷

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⁴⁶There are, as one might expect, other proposals in the literature for solving these and related puzzles. See [Fine, 2010] and [Litland, forthcoming]. Considerations of space prevent me from discussing these alternative solutions here. My conclusion is modest: the metaphysical transparency theory offers solutions worth taking seriously. I believe the stronger claim that its solutions are better than other extant alternatives, but haven't begun to show that here.

⁴⁷[ACKNOWLEDGEMENTS]

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