

Truth, explanation, minimalism

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Abstract Minimalists about truth contend that traditional inflationary theories systematically fail to explain certain facts about truth, and that this failure licenses a ‘reversal of explanatory direction’. Once reversed, they purport that their own minimal theory adequately explains all of the facts involving truth. But minimalists’ main objection to inflationism seems to misfire, and the subsequent reversal of explanatory direction, if it can be made sense of, leaves minimalism in no better explanatory position; and even if the objection were serviceable and the reversal legitimate, minimalists’ adequacy thesis is still implausible.

Keywords Truth · Explanation · Minimal theory · Facts · Deflationism · Propositions

1 Overview

Paul Horwich’s minimalism about truth is arguably the dominant—or at least best known—deflationary framework, and deflationism itself arguably remains the dominant Anglophone approach to truth. So minimalism of this sort is a major conceptual and theoretical force to be reckoned with; and so it’s an honor to be invited to reckon with it for this special issue in celebration of the 25th anniversary of Horwich’s (1990/1998) *Truth*.

Generally, minimalists believe that truth just isn’t the kind of phenomenon around which we should expect to formulate philosophically interesting theories. Horwich’s own attempt to make good on this familiar deflationary leitmotif proceeded in three steps. Firstly, he objected that inflationary theories systematically fail to explain the

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so-called *facts involving truth*, to borrow Horwich's useful phrase.¹ Secondly, he supposed that this failure licenses what he calls a *reversal of explanatory direction*. Finally, he argued that, once the explanatory direction is reversed, the minimal theory can exhaustively complete the explanatory task: 'it is possible to explain all the facts involving truth on the basis of the minimal theory'.² I'll follow Gupta (1993) and David (2002) in calling this latter thesis the *adequacy thesis*:

Adequacy: the minimal theory is sufficient for explaining all the facts involving truth.

The central contention of this paper is that each of these three steps is problematic. After a brief overview of the kind of theories being objected to (which readers familiar with traditional inflationism may skip), I demonstrate in §3 that Horwich's main objection misfires on its own terms. In §§4–5, I consider several interpretations of his subsequent reversal of explanatory direction. Unfortunately, this stratagem leaves minimalists like Horwich in no better explanatory position; at best, it saddles them with a new and difficult explanatory burden—one that likely cannot be discharged without simply begging the question against inflationists. I then rehearse minimalists' argument for *Adequacy* in §6. In §§7–9, I evaluate each of the three main premises of the argument, and conclude that even if the objection were serviceable and the reversal legitimate, *Adequacy* is unwarranted. In §10, I end with a few further remarks about why *Adequacy* is implausible on independent grounds, and suggest that no one not already committed to minimalism would suppose that all the facts involving truth can be explained on the basis of the minimal theory.

To be clear, the contention is not that minimalism's status as the dominant variant of deflationism is undeserved—quite the contrary. Horwich's *Truth* (1990/1998) is an eminently important book on the subject, and has survived a quarter century of critique. Nor is the point to plump for inflationism, either, which may have its own share of problems. It's just a further question whether any of the particular theories that comprise it are themselves viable. Rather, the point is that we should be no less wary of Horwich's minimalism.

2 Inflation as reduction

Inflationists about truth suppose that non-reductive or 'flat' schemata, e.g.,

Equivalence: the proposition that p is true if, and only if, p

help fix the default syntactic behavior of at least some uses of *true* in English. Yet, they also suppose that the overarching theoretical endeavor has traditionally been

¹ I'll follow Horwich (1990/1998; 2001, p. 162 fn. 7; 2005, p. 8 fn. 2; 2008b, p. 268) in his non-committal use of *facts* and *facts involving truth* to broadly allude to the data sets comprising the explananda. Horwich's neutrality about the proper metaphysical characterization of facts is partially vindicated by the history of the grammaticalization of *fact*-talk from action-, occurrence-, and event-designation to clausal coordination in adverbial and gerundial position (see Johnston 2004).

² Horwich (1990: pp. 1–15, 51); see also Horwich (1996: pp. 879–880, 1998: p. 40, 2001: p. 162 fn. 7).

the provision of a descriptively adequate reductive analysis of truth. Such analyses commence along the following lines,

Reduction: x is true if, and only if, x is F

where the predicates *is true* and *is F* designate, respectively, the substantive property truth and the property constitutive of it.

Of course, *Reduction* does help delimit the extensional semantics of an inflationary conception by fixing the covariation of their predicative extensions. But these lines are at most the lines of contour—by itself, *Reduction* is merely a point of departure for theory construction, not a theory of truth.³ Subsequently, to assert with traditional inflationists that truth is a substantive property amenable to a descriptively adequate reductive analysis is to commit to at least two further sets of principles. The first set, to include,

Existence: there exists some property or feature F

Constitution: truth is a property consisting in being F

Uniform: F is a single uniform (sparse) property

advances the idea that truth has a single real essence or nature—much as, say, saltiness has sodium chloride as its chemical nature. The second set, to include,

Possession: F is had by all the true sentences

Explanation (internal): true sentences are true because they have F

advances the idea that F is a (universal) feature of the truths and can be invoked to sufficiently explain their formation as a well-defined class. Together, these two sets of principles further explicate *Reduction*, and make available an outline of a descriptively adequate reductive analysis of truth.

Important to realize is that the characterization thus far issues directly from minimalists themselves. To take one example, Dodd observes that, ‘[t]he presumption of depth is demonstrated by a widespread commitment to the project of uncovering what truth consists in: the property F which all and only the truths share, and which is such that truths are true because they are F’ (2002, p. 279).⁴ Given that minimalists themselves take inflationism to be the project of uncovering the single property F that all the truths share and which is such that truths are true because they possess F, let \mathcal{T} be a traditional inflationary conception of truth if \mathcal{T} implies the conjunction of *Existence*, *Uniform*, *Constitution*, *Possession*, and *Explanation (internal)*. And let *substantivism* name the thesis that truth is a substantive property in the inflationist’s sense.⁵

³ Indeed, *Reduction* is no more a theory of truth than, say, the axiom of extensionality just is set theory or Feynman diagrams are a theory of quantum dynamics. (Otherwise, the term theory has really lost all meaning.) Incidentally, the same point applies to *Equivalence*. And where *Equivalence* isn’t a theory of truth per se, it isn’t a deflationary theory of truth for propositions.

⁴ Dodd’s claim should be emended. Insofar as other kinds of bearers beyond just the truths may also possess F, the claim that F is had by only the truths should be excluded from *Possession*. See also David (1994, pp. 3–4, 65–6) and Mou (2000, p. 263).

⁵ Edwards (2013) helpfully distinguishes the so-called *opacity* and *constitution conceptions* of substantive truth properties from a third taxon involving the denial that truth is a merely logical property. While

From this common base set of principles comprising \mathcal{T} , conceptual development typically proceeds by further analyzing the property F being posited. For example, it's open to theorists to treat F as a seriously structural property, like correspondence, or 'prime' it for reduction by reconstruing it functionally. Beyond that, theorists work out different candidate posits (e.g., concordance as durable supercoherence; coherence as near-optimal constraint satisfaction; warranted assertability as superassertability; correspondence as an injective mapping relation, weak homomorphism, etc.). With continued analysis and further principles, the familiar versions of traditional inflationism begin to emerge.⁶

3 Minimalists' main objection

So it probably goes without saying that Horwich is no inflationist: 'I believe this impression [i.e., inflationism] is wholly wrong', he wrote, 'and that it grows out of two related misconceptions' (1990/1998, p. 2). The first misconception is the substantivist claim that 'truth has some hidden structure awaiting our discovery'; the second misconception is that our ability to explain or solve central philosophical problems does not hinge upon the discovery of this property F constitutive of truth (ibidem).

Footnote 5 continued

theorists do toggle between these conceptions for their various constructive purposes, I take constitution conceptions as the more basic. Principles to the effect that truth is a metaphysically opaque property, e.g.,

Nontransparent: truth has a constitutive nature F that isn't exhaustively revealed just in our grasp of the concept.

presuppose more basic principles like *Constitution*, but not vice-versa. However, Edwards demurs from assigning constitution conceptions theoretical priority because he observes that some constitution conceptions (e.g., disjunctivism) may not always admit of substantive truth properties, while others (e.g., primitivism) posit substantive truth properties that aren't straightforwardly amenable to constitution conceptions. If there's a divergence of opinion here, it's quite shallow. The disjunctivist counterexample doesn't arise if traditional inflationary theories include *Uniform* as a partial explicans of *Reduction*. And inflationary theories are such that the truth properties they posit aren't primitive precisely because those properties have a specifiable internal substructure. (It's because they deny this kind of reductive conception that primitivists aren't substantivists in the sense of inflation that I take minimalists to be focused on.)

⁶ One might object that reductive analysis implies some kind of ontological simplification, such that truth is eliminable (and perhaps *truth*-talk dispensable in favor of *F-ness*). But there's no imperative for such implications, even if inflationary theory construction occasionally proceeds in that direction. (For example, see the exchange between Churchland (1992) and Putnam (1992) on the establishment of a 'successor notion of truth', in which truth is re-conceived as an inflexible configuration of vectors in neurocomputational state-space.) Similarly, whether ontological simplification implies identity, rather than elimination, is also an open question. Perhaps the best explanation of why truth and F are constitutively related is just that, essentially, truth is F. But whether theory construction must proceed by explicating *Reduction* such that constitution conceptions imply, *ultima facie*,

Identity: x is true = x is F

isn't obvious (cf. Horwich 1990/1998, p. 143; 2013, p. 286 fn. 17). Following 'new wave' reductionists in philosophy of science, I presume both that between elimination and identity is a spectrum of ontologically retentive consequences that fall out of the pairwise intertheoretic relationship—in this case, between our theories of truth and F-ness—and that nothing in the construal of inflation as reduction necessitates stipulating in advance of theory construction what the ontological outcomes will be (see also Sher 2004).

But how does the story go from here? If inflationism is ‘wholly wrong’ because substantivism is misconceived, then the principles instigating this misconception, such as *Constitution*, ought to be abnegated; for they would be partly responsible for what many see as the ‘dismal history’ of inflationary theories of truth. Yet, recall that Horwich—the architect and central spokesperson of minimalism—doesn’t conceive of the wrongness of inflationism in terms of the descriptive inadequacy of any of its familiar and traditional versions. ‘I should stress that the minimalist critique of the correspondence, coherence, constructivist, pragmatist, and primitivist accounts of truth is not that they are false’, he wrote; ‘[o]n the contrary, it seems quite likely that carefully qualified, true versions of each of them could be concocted’ (1990/1998, p. 11).

What Horwich stressed is that minimalists’ main objection isn’t that the conjunction of high-level principles comprising \mathcal{T} is false, incorrect, or otherwise fails to adequately describe what truth is. Instead, he conceived of the wrongness of inflationism in terms of something else:

[t]he main objection is rather that none [of the traditional inflationary theories] can meet the explanatory demands on an adequate theory of truth. Specifically, none provides a good account of why it is that instances of the equivalence schema are true. Minimalism involves a reversal of that explanatory direction. On the basis of the equivalence axioms it is easy to see why, and in what form, the traditional principles hold. Indeed every fact about truth can be naturally derived from those biconditionals. Therefore it is they that should constitute our basic theory of truth. (1990/1998, pp. 11–12)

So, minimalists’ main objection to inflationary theories is that they systematically fail to adequately explain why T-biconditional instances of *Equivalence* are true. (Per usual, let’s use ϕ for the phenomena to be explained.) Here, we have one of minimalists’ most under-appreciated innovations: a shift in thinking about how theories (née *conceptions*) of truth should earn their keep. Rather than providing descriptively adequate reductive analyses, they should instead aim to provide an explanatorily adequate non-reductive ‘account’.

What are we to make of Horwich’s claim that traditional inflationary theories are ‘wholly wrong’, but that their downfall is their explanatory inadequacy and not their descriptive inadequacy? Well, if the problem with inflationism isn’t descriptive inadequacy, then the abnegation of substantivist principles like *Constitution* is unforced and insufficiently warranted; but then it becomes immediately unclear why substantivism is a misconception from out of which the wrongness of inflationism grows.

This point impugns minimalists’ main objection itself. Recall Horwich’s concession that it’s quite likely that an inflationary theory \mathcal{T} will be correct or descriptively adequate if carefully qualified. Then any such correct or descriptively adequate \mathcal{T} will imply *Explanation (internal)*; and then \mathcal{T} explains, ex hypothesi, that all true sentences are true because they are F. Since instances of *Equivalence* are true sentences of English, it directly follows that any such \mathcal{T} explains, ex hypothesi, that all instances of *Equivalence* are true because they are F. So, the property F which \mathcal{T} posits will be necessary and sufficient for explaining why its instances are true, which makes it immediately unclear what could possibly warrant their assertion that none of the

familiar and traditional inflationary theories can provide a good account of why the T-biconditionals instantiating *Equivalence* are true; for pace Horwich, actually, they can. So, minimalists' main objection to inflationism misfires on its own terms.

The problem may be worse. Since minimalists posit propositions as their primary and proper bearer of truth but instances of *Equivalence* are true sentences of English, minimalists themselves need a general principle to connect sentences and propositions: e.g., a sentence σ of a language \mathcal{L} is derivatively correct just in case the proposition it expresses is true. Given this principle, minimalism can then lay claim to being explanatorily adequate only if two further claims hold: firstly, instances of *Equivalence* are derivatively correct because they express true propositions, and secondly, the true propositions expressed are necessary and sufficient for explaining why their corresponding instances of *Equivalence* are correct. But observe that this is trivially equivalent to the very move inflationists themselves make; the main difference is that the substantivist's property F—say, corresponding to some fact, or being superassertible—has merely been replaced with another substantive property F'—say, the property of expressing a true proposition. Of course, some may claim that property F is fraught with difficulties; others will aver that F' is no less shadowy. But resolving this dispute isn't our concern. Rather, our point is just that Horwich's dismissal of the substantivist misconception cuts both ways: minimalists 'explain' why instances of *Equivalence* are true by claiming that those instances have F', and this claim conforms to *Reduction* no less than any inflationary specification.

So, given how minimalists like Horwich set things up, there couldn't be a main objection to \mathcal{T} grounded in the claim that \mathcal{T} doesn't provide a good account of why instances of *Equivalence* are true, but which does not also apply eo ipso to minimalism. To take another example, minimalists would be right to note that the connective *because*, being neither commutative nor truth-functional, doesn't just neatly fall out the semantics of the biconditional *iff* in *Reduction*. So the story about how to explicate *Reduction*, such that inflationism is the project of uncovering the single property F that all the truths share and which is such that truths are true because they possess F, will require clarification. But that same note equally applies to minimalists' own attempt to elicit explanations of why true sentences are true from any T-biconditional instances of *Equivalence*.

What about Horwich's second misconception? Minimalists acknowledge that truth is related to sundry other phenomena: semantic (e.g., meaning), cognitive (e.g., thought, categorization), epistemological (e.g., knowledge, evidence), metaphysical (e.g., reality, facticity), pragmatic (e.g., assertion), psychological (e.g., sincerity, intentionality, belief), neurophysiological (e.g., Bayesian predictive coding), alethic (e.g., deixis, denotation), logical (e.g., validity), scientific (e.g., lawfulness, theoretical success over time), etc. What they deny is that, in being so related, the role that truth plays with respect to any of these other phenomena is an explanatory role.

Unfortunately, minimalists' denial is prima facie counterintuitive (even if ultima facie correct): for better or worse, we seem to explain knowledge in terms of truth; validity is necessary truth-preservation; to assert is to present as true; scientific theories are successful because they're true; etc. So their partisan denial needs motivation to undermine the countervailing pro tanto reasons against it. Consequently, let's distinguish two subtly different issues. First is the issue of whether truth plays an explanatory

role in other theories of meaning, validity, judgment, realism, etc. Second is the issue of whether a theory \mathcal{T} explains the role that truth plays with respect to these phenomena. Given this distinction, some inflationists will still be happy to advance the following thesis,

Explanation (external): \mathcal{T} adequately explains the role(s) that truth plays with respect to understanding other phenomena

and minimalists will still demur (because, as we'll see in §9, they try not to account for these roles); but the dispute will have ascended to more neutral ground, because it doesn't presuppose that the roles truth plays are, or are not, explanatory roles. Moreover, this way of putting the matter also accords better with minimalists' main objection anyway, which instead concerns inflationary theories and their theoretical virtues rather than the nature of truth's relationships with all of these other phenomena.

Nothing in the explication of *Reduction* logically commits or entitles theorists to *Explanation (external)*, however. It is a superfluous addition in the provision of a descriptively adequate reductive analysis. Consequently, if minimalists' main objection is that no inflationary theory \mathcal{T} provides a good account of why it is that instances of *Equivalence* are true, then it's no part of these explanatory demands that any \mathcal{T} must also imply *Explanation (external)*. But even if it were part of those demands, then neither the falsity nor any other demerits of *Explanation (external)* would be a reason for thinking that \mathcal{T} fails to provide a good account of why instances of *Equivalence* are true.

For its part, the minimal theory (by design, and in contradistinction to the minimal conception—see §4 ff.) has no resources with which to adequately explain the role(s) that truth plays with respect to understanding intentionality, interpretation, sincerity, validity, deixis, assertion, etc. Consequently, the minimal theory will fare no better than its competitors, and perhaps worse, if part of these demands are such that any theory of truth must imply *Explanation (external)* to satisfy a measure of explanatory adequacy. And so, again, minimalists couldn't have a main objection to \mathcal{T} that didn't also put pressure on minimalists' own claim to *Adequacy* (see also fn. 14).

These observations can be assembled into a dilemma. If *Explanation (external)* is misconceived, then it's not a misconception from out of which the wrongness of inflationism grows given that a descriptively adequate reductive analysis needn't imply it. Or if it were such a misconception, then inflationists' failure to satisfy this measure of explanatory adequacy is also one that minimalists themselves must partake in.

So, minimalists may believe that inflationism is wholly wrong; and perhaps it is. But their main objection to inflationism misfires. To be fair, neither does it follow that what inflationists provide us with are good theories, and what minimalists like Horwich and Dodd mainly object to just is this presumptive failure of theoretical goodness. Even still, the minimalist prosecution of that claim must rest on something more than mere presumption.⁷

⁷ Horwich never explicitly states just what the failures of inflationism are, and his allusions to them are typically not more than innuendos and casual references to his own and others' works; for instance, justification for his assertion that '[inflationism] has [n]ever survived serious scrutiny, (1999: 240 fn. 2) consists in nothing more than a reference to his own book (1990/1998) and Kirkham's (1992/2001).

4 Reversing explanatory direction

To recap, Horwich's main objection is that inflationary principles comprising \mathcal{T} cannot explain why the biconditional instances of *Equivalence* are true (i.e., $\mathcal{T} \leftrightarrow \phi$), and he takes these explanatory failures to license a 'reversal of explanatory direction'. What this means isn't fully clear, and beyond this, Horwich himself has given surprisingly few clues other than to add, again, that '[o]n the basis of the equivalence axioms it is easy to see why, and in what form, the traditional principles hold. Indeed every fact about truth can be naturally derived from those biconditionals' (1990/1998, pp. 11–12).

When minimalists object that inflationary \mathcal{T} -principles cannot explain why the biconditional instances of *Equivalence* are true and then reverse explanatory direction, it stands to reason that they intend the \mathcal{T} -principles explicating *Reduction* to be relocated so as to pose instead as explananda and the biconditional instances of *Equivalence* to be relocated so as to pose instead as explanantia. In other words, one salient and plausible interpretation is that, by 'reversal', minimalists intend a genuine transposition of explanantia and explanandum (i.e., from $\mathcal{T} \rightarrow \phi$ to $\phi \rightarrow \mathcal{T}$).

There are several problems with this interpretation, though, which diminish its plausibility. One is that the instances of *Equivalence* are, by themselves, insufficient to explain the \mathcal{T} -principles explicating *Reduction*; so it's unlikely that those principles could pose as explananda. Granted, the proposition that turnips are tasty is true if, and only if, turnips are tasty; and the proposition that twice two makes thirteen is true if, and only if, twice two makes thirteen. But neither instance gives us an explanation of why turnips are tasty or why twice two makes thirteen. So if what's desired is an explanation of why \mathcal{T} -principles like *Uniform* hold, i.e., why F is a single uniform (sparse) property, then likewise, we won't get it merely from the proposition that F is a single uniform property is true if, and only if, F is a single uniform property. Consequently, if 'reversal' means a genuine transposition, minimalists will incur the very explanatory inadequacies meant to be hung on their inflationary counterparts.

Worse, the stratagem is self-undermining. In a genuine transposition, \mathcal{T} -principles like *Constitution* would be relocated to the explanandum side of the ledger; and by *Adequacy*, these principles would be elevated to the status of facts involving truth to

Footnote 7 continued

Horwich noted that '[minimalism] suggests that the search for such a [substantive] theory would be misguided' (2001, p. 150). And indeed it does, though no justification is offered. Horwich has also asserted that '[a]mongst other ideas, we tried truth as correspondence with fact, as coherence, as provability, as utility, and as consensus; but they all turned out to be defective in one way or another' (2008a, p. 29; see also 2005, p. 39). Justification for this third assertion consists in reminding readers of the existence of two additional books. Elsewhere, Horwich wrote: 'the alleged peculiarity of truth is that there is nothing to be said—not even very roughly speaking—about what it consists in' (Horwich 1999, p. 240 fn. 2) and 'the trouble is that this [substantivist] conclusion is unjustified and false' (Horwich 1990/1998, p. 2). We can grant that inflationism may well be wholly wrong, but surely not for these reasons: the first of these latter two claims is unjustified and false (much has already been said), and the second is overtly question-begging (no inflationist could assent to it). Because Horwich offers only no justification for lobbing either charge and ignores extant responses to putative problems—whether they're successful is another matter—and because Horwich also stresses that neither is the minimalist's main objection anyway, let us chalk up most or all of these claims to mere rhetorical burnish and look to other theorists for sustained accounts of the failures of inflationism.

be explained. But then, two such facts about truth demanding explanation would be that truth is a property consisting in being F, and that truth is a substantive property in the inflationist's sense. Minimalism is ill-equipped to explain such facts about truth. One alternative would be to claim that they simply aren't facts about truth in the first place; but then they also can't be genuinely transposed—minimalists can't have it both ways. Another alternative would be to transpose the \mathcal{T} -principles per the reversal but instead claim that they're false, as many other minimalists seem wont to assert. Yet, Horwich (2005, 2008b) and other minimalists construe explanation as derivation, and no explanatory good can come from using the true instances of *Equivalence* to invalidly derive or 'explain' falsehoods. Consequently, it seems that minimalists cannot have intended the \mathcal{T} -principles explicating *Reduction* to be the 'traditional principles' that serve as the facts about truth to be explained, and which are then derived from instances of *Equivalence*.

If genuine transposition is a non-starter, what could Horwich have intended? Presumably, not that inflationists' principles remain in place while the T-biconditional instances of *Equivalence* also serve as explanantia (i.e., $\{\mathcal{T}, \phi\} \rightarrow \phi$); for that would just yield an inflationary theory augmented with the instances of *Equivalence* as additional explanatory resources, which would simply undercut minimalists' deflationary ambitions. And just to cover all the bases, another thing minimalists cannot have intended is that the T-biconditional instances of *Equivalence* remain on the explanandum side of the ledger as facts to be explained but also pose as explanantia (i.e., $\phi \rightarrow \phi$). For then the effect of their becoming explanantia would just be that minimalists explain why instances of *Equivalence* hold by appealing to them. But that's circularity, not explanation.

Can minimalists' reversal be made sense of by reinterpreting the referent of what Horwich called the 'traditional principles' in terms of flat schemata like *Equivalence* rather than the \mathcal{T} -principles explicating *Reduction*? Such a reinterpretation would yield two possible ways of understanding the minimalist stratagem. On the first, we're to understand why instances of *Equivalence* hold on the basis of principles like *Equivalence*. On the second, we're to understand why principles like *Equivalence* hold on the basis of instances of *Equivalence*. Both reinterpretations allow for a transposition of the sort that might make sense of minimalists' claim to be 'reversing explanatory direction'; but neither seems particularly viable, and, as we will see, the only remaining option leaves minimalism with its own untoward explanatory burden.

The first of these reinterpretations is premised on a muddled misdescription of the minimal theory itself; and so, minimalists themselves couldn't have intended it. One will be forgiven for thinking otherwise; for in the revised edition of *Truth*, Horwich properly distinguished between 'the minimal theory as such' and 'the minimalist conception', but then wrote, 'the theory of truth [that my account] proposes involves nothing more than the equivalence schema' (1990/1998, p. 7, 11).⁸ Presumably, Horwich's intended point was just that *Equivalence* somehow presents the schematic structure of the minimal theory's principles without remainder, and amounts to the only resources really needed to generate minimalist explanations. But strictly

⁸ If by *explanation* we mean something that must be truth-apt and truth-aptness requires schemata to be closed, then it's unclear what it would mean for just *Equivalence* to play the role of explanans.

speaking, the so-called *minimal theory* is an infinite unordered list of non-paradoxical T-biconditional propositions expressed by their corresponding instances of *Equivalence*,

..., $\langle\langle$ Parliament is in session) is true iff Parliament is in session), $\langle\langle$ clouds are in the sky) is true iff clouds are in the sky), $\langle\langle$ Hawai'i is in the United States) is true iff Hawai'i is in the United States), $\langle\langle$ Phil has some New Yorker in him) is true iff Phil has some New Yorker in him), $\langle\langle$ the proof of the pudding is in the eating) is true iff the proof of the pudding is in the eating), $\langle\langle$ there is a fallacy in Pascal's wager) is true iff there is a fallacy in Pascal's wager), ...

that is, propositions of the form,

Modified: $\langle\langle$ p) is true if, and only if, p)

So the minimal theory involves only propositions, and many of them. A fortiori, it doesn't include any schemas of propositions, much less schemas of sentences that express them; and so it cannot be that the minimal theory involves nothing more than the equivalence schema.⁹

Because the minimal theory does not reduce to *Equivalence* or *Modified*, contrary to Horwich's errant claim above, it cannot be that minimalists intend to 'reverse direction' so that schematic principles like *Equivalence (Modified)* pose as explanans and explain why instances of *Equivalence (Modified)* hold. For not only would this put the minimal theory on the wrong side of the explanatory arrow, it would also be no more intellectually satisfying or explanatorily adequate than the project of showing that schemas are instantiated by, and have explanatory priority over, their instances.¹⁰

Footnote 8 continued

Elsewhere, Horwich claimed that the minimal conception—not the minimal theory—is what explains the instances of *Equivalence* (2005, p. 38). To complicate matters further, he sometimes uses both *Equivalence* and *Modified* interchangeably (cf. 1990/1998, p. 10, 13), and vacillates between each of them (e.g., 1990/1998, p. 11; 2001, p. 149, 162 fn 7; 2005, p. 38) and the operator (1990/1998, p. 6) and disquotational (2005, p. 26 ff.) schemata. See also Horwich (1999, p. 245; 2001, pp. 149–51). Horwich has also suggested that *Equivalence* could just be a theorem in a more general truth theory (1990/1998, p. 134).

⁹ Some scholars have described the minimal theory as an infinite conjunction (e.g., Kirkham 1992/2001, p. 340; Thalos 2005, p. 77); but Horwich has been careful to say that the minimal theory is a mere list-like collection (and so involves no logical connectives conjoining its instances, and so has no truth-functional structure (unlike the items comprising it)). The mistake perhaps originates from the perceived similarity of Horwich's minimal conception to Tarski's discussion of *Convention T*: 'it should be emphasized that neither [Convention T] itself (which is not a sentence, but only a schema of a sentence) nor any particular instance of the form of [Convention T] can be regarded as a definition of truth. We can only say that every equivalence of [Convention T...] may be considered a partial definition of truth, which explains wherein the truth of this one individual sentence consists. The general definition has to be, in a certain sense, a logical conjunction of all these partial definitions' (Tarski 1944, pp. 335–336).

¹⁰ Kitcher once advanced a similar criticism, to the effect that nomologically subsuming T-biconditional instances under *Equivalence* provides no deep explanatory insight: '[t]he problem with Horwich's explanation is that it stops at a rather shallow level. Indeed, it's akin to the classic paradigms of 'explanation' that subsumed facts about bird plumage under putative ornithological laws' (2002, pp. 354–355; see also Wright 2001, p. 757). Kitcher's point, even if not particularly diagnostic, is illuminating and worth exploring further. So consider an analogy with the law of non-contradiction. When a statement conjoined with its explicit negation is discovered and ruled impermissible, we take it to be an instance of the law, and we take the law to be confirmed and to continue to hold (relative to our other

This leaves the second reinterpretation, in which *Equivalence (Modified)* and its instances are reversed, such that the instances of *Modified*—the minimal theory—now pose as explanantia and adequately ‘explain’ why the ‘traditional’ principles, i.e., *Equivalence (Modified)* hold. Two immediate problems arise, however. Firstly, a reversal of *Equivalence (Modified)* and its instances has nothing to do with inflationism, and so no longer issues—not even indirectly—from the explanatory inadequacy of inflationism. This means that minimalism makes no actual contact with any of the theories it was intended to displace, and so falls afoul of basic norms of theory choice and intertheoretic competition; in turn, that makes it unclear why minimalists should require a reversal of explanatory direction in the first place. Secondly, on this second reinterpretation, minimalists will be correct in thinking that *Equivalence (Modified)* is corroborated as a platitudinous regularity, which continues to hold a priori for a certain infinite number of T-biconditionals for paradox-free fragments of the language. But this kind of corroboration—whether showing that some particular T-biconditional is an instance of *Equivalence (Modified)*, or that *Equivalence (Modified)* holds for an infinite number of T-biconditionals—is merely an exercise in confirmation, not explanation. Since confirmation fails to satisfy the overarching theoretical endeavor as minimalists construe it, then neither will minimalism be remotely competitive by its own criteria if this is what ‘reversal’ amounts to.

Together, these considerations imply that minimalists cannot mean by ‘reversal of explanatory direction’ any kind of genuine transposition of explanantia and explanandum. Minimalists are clear about relocating the T-biconditional instances of *Modified* so that they serve as explanantia. But the traditional \mathcal{T} -principles explicating *Reduction* cannot remain as explanantia, and cannot be relocated so as to serve as explananda; nor can the reversal be interpreted so that schemata like *Equivalence* or *Modified* are relocated so as to serve as either explanans or as explananda. The only interpretive option is that Horwich’s ‘reversal’ results in an altogether different pairing of new explanantia and new explananda (i.e., $\phi \rightarrow ?$). The \mathcal{T} -principles drop out of the picture, and the instances of *Modified*—the minimal theory—become explanantia and do not remain as explananda. But then, what are the new facts to be explained? Again, recall that Horwich mentions only ‘the traditional principles hold[ing and] every fact about truth’ (1990/1998, pp. 11–12). But which principles are these? Which facts? We are now in a position to see that Horwich’s reversal of explanatory direction effectively relocates back onto minimalists the difficult explanatory burden of fixing the facts—a burden which isn’t likely to be discharged without begging the question against inflationists.

Footnote 10 continued

commitments about logic). But the law itself doesn’t adequately explain the nature of any particular pair of contradictory statements, much less all the varied and interesting facts about contradictoriness and its relationships to other phenomena. Indeed, to explain such facts—i.e., to explain why an instance of the law is a contradiction, or why its being a contradiction renders it normatively impermissible, or any number of other things—it wouldn’t do just to cite and recite the law of non-contradiction. An ‘explanation’ that consisted just in ostensibly pointing to schemata like $\neg(p \wedge \neg p)$ would be unsatisfying to someone for whom instances of the law of non-contradiction are cognitively abstruse: rather than heeding the very call for explanation, doing so would merely ignore the elenchus. What we desire to know about is not that the instance instantiates a regularity or general pattern, and no explanatory advance is made by pointing to the general pattern of negating conjunctions of statements with their negations; for that just is the law of non-contradiction, not what explains it. *Mutatis mutandis* for the ‘laws of truth’.

5 Explanation: an interlude

There have been many excellent discussions of minimalism in the last 25 years. One overlooked aspect, however, is minimalists' supposition that explanation should be the overarching theoretical endeavor for theories of truth. If that supposition is correct, then surely minimalists are also correct in thinking that the metric for theoretical success or failure becomes explanatory adequacy—i.e., how well the theory's explanations 'illuminate' Horwich's so-called *facts involving truth*. But now notice that what we count as adequate illumination depends on what we take those facts involving truth to be; and what we take them to be depends in part on our antecedent commitments and presuppositions.

When our antecedent commitments involve fundamental or very extensive differences, those commitments will enforce equally serious differences in our understanding of the very phenomenon requiring explanation. If we count as part of the explanandum the fact that truth enjoys a reductive analysis (of which the behavior of truth predicates is only superficially symptomatic), for example, or that truth is an abundant property, then we count as possibly adequate only those kinds of explanation that minimalists, by their theories, cannot give. Likewise, in taking the explanandum to include the fact that *is true* in \mathcal{L} is an assertoric 'device' used by speakers to amplify the 'seriousness' or psychological tenor marking the indicative mood of the sentences they assert (Frege 1918/1956, p. 294), then we count as possibly adequate only those kinds of explanations that deflationists, by their theory, cannot give. In taking the explanandum to include the fact that the predicate *is true* in \mathcal{L} is merely a non-normative and metaphysically simplex and transparent logical 'device' merely for making long stories short, then we count as possibly adequate only those kinds of explanations that inflationists, by their theory, cannot give. And so on and so forth, for indefinitely many such 'facts'.¹¹

The problem is fairly stark: minimalist explanations don't explain very much. We might acknowledge that this isn't very satisfying, but go on to think that that's precisely the point. Or we might acknowledge that it's precisely the point, but go on to think that that's not very satisfying. And which of these two thoughts one has will naturally depend on what one already thinks of the phenomena to be explained.

Because these observations merely affirm a platitude—i.e., that giving an explanation proceeds first by fixing upon a target explanandum, and only thereafter trying to formulate an explanans—its import is easily overlooked. As one recent rehearsal of minimalism put it, 'a touchstone for any proposed theory of truth is its explanatory value, its ability to explain putative uncontroversial facts or generalizations about truth' (Hoffman 2010, p. 942). That's right, so far as it goes. We needn't deny that accounting for the uncontroversial facts is a minimum requirement on theories of truth, so long as we don't also forget that it's the controversial 'facts' that make for the controversies between them.

¹¹ See Lynch (1999) for an argument that all facts are relative to conceptual schemes, given certain plausible assumptions about content.

Of course, successive redescriptions of a target phenomenon can be crucial for developing better explanations.¹² But the likelihood of inflationists and minimalists converging on even an initial description is quite small. They appear to approach the explanatory task with fundamentally incompatible ideas about what the data set comprising the explanandum consists in, and that's even granting minimalists' reconstrual of the overarching theoretical endeavor. Moreover, the pressure to achieve both inter- and intra-theoretic refinements is perfectly compatible with maintaining the sort of 'organizing prejudices' that influence not just their initial descriptions of the facts involving truth, but how then to measure the explanatory adequacy of a given theory. Suffice it to say, when the overarching theoretical endeavor becomes explanation, fixing upon the facts involving truth becomes an urgent matter.

6 Minimalists' argument for explanatory adequacy

Principles like *Equivalence*, when instantiated, enable us to locate, in English, two propositions that are extensionally equivalent. However, what minimalists profess to achieve isn't a mere extension-producing 'definition', but something more interesting—i.e., the kind of understanding that genuine and complete explanations provide.¹³ Their thought is that, by reversing explanatory direction, minimalists can articulate not only why propositions presented as true on the left side of instances of *Equivalence* are logically equivalent to propositions presented on the right, but also will be able to make quick work of explaining all other facts involving truth more generally. However, as we've seen, matters are less obvious than minimalists would like them to appear.

To demonstrate the kinds of explanations generated by the minimal theory, Horwich (Horwich 1990/1998, pp. 22–24) gave three prototypical examples. One will be considered in more detail in §8. Meantime, observe that the inductive generalization from these three examples to the correctness of *Adequacy* is exceedingly weak absent a (complete) specification of the explanandum. Indeed, the question of *Adequacy*'s correctness becomes moot—it cannot be evaluated—without some description of what the facts involving truth are such that minimal theory is sufficient for explaining them all. Consequently, we're thrust right back to our previous, increasingly serious problem: given their 'reversal', what are the facts that minimalists take to constitute the target explanandum, such that *Adequacy* is correct?

Minimalists typically try to flank the sharp end of this question by appealing to an antecedent commitment of their minimal conception regarding what theories of truth should be about. 'One may or may not propose an account', wrote Horwich, 'which inextricably links truth with other matters: for example, assertion, verification, reference, meaning, success, or logical entailment. [My view] involves the contention

¹² Even if inflationism were explanatorily inadequate, we'd be justified in supposing that the disconnect owed instead to \mathcal{T} 's having mistakenly just targeted the wrong explanandum. But then one appropriate response would be—not to reverse explanatory direction—but to correctly identify the facts that \mathcal{T} initially ought to have been explaining in the first place.

¹³ Oddly, Horwich (2005, p. 39) suggests that *Equivalence* is merely definitionally adequate. This suggestion is incompatible with minimalists' attempts to establish *Adequacy*.

that truth has a certain purity—that our understanding of it is independent of other ideas' (1990/1998, p. 11). The idea is, reasonably enough, to distinguish the facts involving truth from the facts about truth per se:

Puritanical (narrow): The facts about truth are facts about truth alone

Puritanical (wide): The facts involving truth are facts about truth and its relationships to other phenomena

This distinction seemingly implies that only a single criterion on explanatory adequacy need be satisfied: specifically, explaining what truth is (alt., what it is for something to be true, what the property of truth amounts to if anything). An explanatorily adequate theory is then one that yields the truth, the whole truth, and nothing but the truth, about only truth.

While restricting minimalism's explanatory scope to *Puritanical (narrow)* may undermine the ambitiousness of *Adequacy*, the distinction is a powerful management tool. It dramatically reduces the complexity of the explanandum alluded to in *Adequacy*, since many particular and general facts involving truth won't be facts about truth per se, and so will fall outside of the explanatory scope of the minimal theory. Of course, the effect of putting the distinction to work just is offloading those very explanatory burdens onto other theorists:

A theory of any phenomenon ϕ is a collection of principles (i.e., axioms and/or rules); and the theory is good to the extent that it captures all the facts about that phenomenon in the simplest possible way. [...] Of course we don't expect our theory of ϕ to do the explanatory work all by itself. It does not follow solely from the theory of electrons that electrons are smaller than elephants; we need a theory of elephants too. Our goal, then, is to find a simple theory of ϕ which, together with our theories of other matters, will engender all the facts. (Horwich 1990/1998, pp. 23–24)

The suggestion is that it'd be unreasonable to expect a theory of truth itself to explain the facts involving truth, which involve indefinitely many facts about things other than truth. For instance, the minimal theory doesn't serve as a theory of meaning, and so needn't elucidate any facts involving truth's relation to meaning; nor need it explain why valid inferences are truth-preserving, or why the (approximate) truth of mature scientific theories frequently leads to predictive success; nor must the invocation of *Modified* explain the nature of perjury in legal discourse; etc.

Horwich's considered view seems to be that these other phenomena and their relations to truth will have explanations too, though they'll simply be issued by other theories.¹⁴ Hence, the facts about meaning related to truth can be explained by supplementing the minimal theory with a good semantic theory; explaining why valid

¹⁴ Minimalists think that, because truth has 'a certain purity', it's appropriate to restrict the explanatory scope of minimalism—hence the switch from *Puritanical (wide)* to *Puritanical (narrow)*. So minimalists will contend that, if minimalism is wholly wrong, the wrongness of minimalism cannot grow out of its failure to account for facts about truth's relationships to other phenomena. But consistency then demands that this contention be applied to inflationism as well. Indeed, inflationism may be wholly wrong, but minimalists' complaint cannot be that wrongness of inflationism grows out of T 's failure to explain facts that minimalists themselves exclude from the target explananda. This point lends further support to the argument at the end

inferences are truth-preserving only requires that minimalism be supplemented with a good theory of validity and a good theory of inference; in conjunction with good theories of truthfulness, deceit, sincerity, or oath-taking, the minimal theory can then be used to explain perjury; and so on. The addition of supplementary theories can be appealed to in order to extract truth from its relations with other phenomena.¹⁵ In combination with supplementary theories, the minimal theory purportedly has sufficient explanatory resources for explaining away all that merits explanation about truth and related phenomena.¹⁶ Hence, *Adequacy*.

Of course, it's no small problem for minimalists that they use the phrase 'explaining all the facts about truth' [in the sense of *Puritanical (narrow)*] to just mean 'correctly stating what truth is'—a phrase which implies the provision of a descriptively adequate analysis, reductive or otherwise. Such usage brings us back to Horwich's puzzling claim that the principles of a correct and carefully qualified inflationary theory *T* can be descriptively adequate and yet don't explain all the facts about truth, i.e., somehow don't correctly state what truth is. A more salient problem with *Puritanical (narrow)* is that it leaves theorists no closer to fixing the facts about truth per se. As an answer to the question 'what is a theory of truth about?', it's a feckless place-holder; in answering 'truth', we go around in the smallest of circles. So when the overarching endeavor of theories of truth is reconstrued in terms of explanation, adding *Puritanical (narrow)* to the minimal conception makes it easier for minimalists to execute their task; but it's all for naught if they can't profitably begin.

If there's a more direct answer, it's scattered throughout various works.¹⁷ Presumably, for minimalists, the central fact about truth per se requiring explanation is that truth is an insubstantive property.¹⁸ However, another 'fact' commonly cited by minimalists is that propositions are the primary or proper bearers of truth—the existence of which is inferred from there being something that's meant or expressed by utterances of sentence types. Another, Horwich concluded, is that the sole *raison d'être* of truth predicates is to enable speakers to infer propositions that cannot readily be identified,

Footnote 14 continued

of §3 that *Explanation (external)* is strictly orthogonal to minimalists' main objection; minimalists should rescind this part of their criticism of inflationism.

¹⁵ If good supplementary theories of meaning, validity, lying, etc. only provided the resources to adequately explain meaning, validity, and lying, then the extrinsic relationships between meaning and truth, or validity and truth, or perjury and truth, etc. would be left unexplained. So the minimalist's strategy cannot be applied across the board. It asymmetrically demands of other theorists that they perform the explanatory labor, since, in offloading the burden of explaining the relationships between those phenomena and truth back onto the minimalist theory of truth, minimalists would just shift the burden right back.

¹⁶ See Horwich (1990/1998, p. 26; 1996, pp. 879–880). To be clear, though, this strategy precludes the minimal theory from playing the role of the theory *T* in *Explanation (external)*.

¹⁷ See Horwich (1990/1998, pp. 1–4; 1999, p. 240, 244, 247; 2001, p. 150; 2005, pp. 38–39; 2008a; 2008b).

¹⁸ Some deflationists suppose that one central fact about truth is that truth isn't a property designated in predicative position at all, but a (prosentence-forming) logical operator that functions attributively and anaphorically. This claim pits prosententialism against the minimalist conception, and with it, *Adequacy*; for if truth isn't a property, then it isn't an insubstantive one either. This divergence of antecedent commitments between prosententialists and minimalists further highlights just how important it is to settle on what the facts to be explained are. It'd be much more than a little logical wrinkle, after all, if the central fact explained (deduced) by minimalism—that truth is an insubstantive property—turned out to be a pseudo-fact.

and to speak about and generalize over unarticulated propositions (1990/1998, 2–4, 126–7); yet another is that truth predication exists only for the sake of certain logical and conversational needs (i.e., facilitating certain generalizations and dealing with anaphoric discourse, such as *virtually everything Alphonse said was true* or *Brentano's thesis is true*). Horwich also held that the concept TRUTH is a matter of having a disposition to assert or assent to, without evidence, any given instance of *Modified*. Finally, in endorsing a traditional use theory of meaning, he suggested that the lexical meaning of *true* is given by the fact that our linguistic behavior issues from this disposition. Given these facts, the argument for *Adequacy* can be reconstructed as follows.

- (1) The facts about truth are that truth is a property; that the property of being true does not enjoy a reductive analysis; that the sole function or role of truth predication is to facilitate certain generalizations and blind ascriptions over inaccessible or unidentifiable propositions; that the meaning of *true* is its use in \mathcal{L} per *Equivalence*; that propositions are the primary or proper bearers of truth; that the concept TRUTH just is a disposition or inclination to assert, without evidence, any instance of *Modified*, ...
 - (2) The minimal theory uses only the resources provided by *Modified* to generate explanations, and thus to explain all the facts about truth per se.
 - (3) The minimal theory, in conjunction with the relevant supplementary theories, is explanatorily adequate for explaining all the facts involving truth per se and its relations to other phenomena.
- ∴ (4) Therefore, the adequacy thesis is correct.

7 The facts about truth?

When the overarching theoretical endeavor becomes explanation, our ability to assess *Adequacy* is called into question. This is because determining whether *Adequacy* is correct depends in part on what, precisely, we take the explanandum to be. Indeed, in order for premise (1) to be established and for *Adequacy* to be at all plausible, it seems that minimalists must have an implausibly high degree of omniscience regarding the data set comprising that explanandum. Every fact comprising it must be, in principle, knowable; for minimalists can hardly explain all of the facts involving truth and other related phenomena if there exists some subset of data to which they could have no epistemic access. Are there no unknowable facts involving truth and other related phenomena?¹⁹ The problem would be worse if every datum ϕ_i must be actually known. Presumably, theoretical revisions can result in both the production of new facts hitherto unknown, and the demonstration that some old 'facts' no longer enjoy their factual status. But it's unclear that the data set actually has these properties, and so unclear that *Adequacy* is assessable.

The ellipses at the end of (1), which designate some unspecified subset of facts, underscore these considerations. Again, which facts are those? That the property of being true is deeply normative? That the term *true* is used in ways that minimalists

¹⁹ Because unknowable facts are unknowable, it's unclear what to gesture at. Perhaps a paradigm case would be facts about the use and meaning of alethic terms in obsolescent languages.

aren't concerned with (e.g., adverbial intensification)? That *true* is polysemous, regardless of whether it's construed as a species of correctness or accuracy? Ultima facie, the maximal scope of *Adequacy* is in tension with any unspecified explananda, and minimalists must either replace the ellipses with the remaining facts about truth and/or rewrite (1) so as to include all of the facts if they want the argument for *Adequacy* to go through.

Regardless of which additional facts are specified, it's worth noting that any endorsement of (1) is a commitment to *Puritanical* (*wide*), not (*narrow*). For instance, that the meaning of *true* reduces to its use in \mathcal{L} per *Equivalence* isn't a (metaphysical) fact about truth properties but a controversial semantic thesis; that the concept TRUTH just is a disposition or inclination to assert, without evidence, any instance of *Modified*, is likewise a conceptual claim about a mental representation of a category, strictly speaking, not a fact about being true; that only propositions ultimately bear truth is a claim about propositions; and so on. So since *Adequacy* requires, pace Horwich, that minimalists distinguish the facts about truth from the facts involving truth more generally, minimalists following Horwich in offloading explanatory burdens onto supplementary theories must partition (1) into two distinct premises. In effecting such a partition, the rationale underlying *Adequacy* comes into relief: the relevant data subset to be explained is both minimally populated and rendered on the basis of insubstantivist assumptions.

The standard party line has become the claim that truth predicates are merely syntactical denominalizing devices that exchange singular terms for propositions—that their role is merely to help speakers restore the structure of finite clauses, and so our employment of them is exhaustively grounded in our underived acceptance of instances of *Equivalence* (*Modified*) (Horwich 2001). Indeed, as one commentator recently put it, 'it is a precept of minimalism that there are no facts about truth per se, no facts about truth apart from the role the truth-predicate plays in the formulation of generalizations and blind ascriptions' (Hoffman 2010, p. 944).²⁰ One response is that no one not already in the grip of minimalism has reason to reckon that there are no facts about truth per se apart from facts about the superficial syntactical behavior of truth predication. Another is that, if minimalism is particularly well-suited for explaining this 'fact', it's most likely because it's actually just a principle or thesis of the minimal conception—not some independent datum to be explained by the minimal theory. (The mere-ness of such a device or role is not some long-lost fact that can be dug up in the sands of linguistic ontology.) And since the main thing that could justify such assumptions is an ideological commitment to minimalism, there's little reason to think that minimalists could have a good answer that is not, again, immediately question-begging; and this is itself a reason for thinking that they don't.

²⁰ It seems that minimalists who endorse such claims are guilty of a rather simplistic red herring—their explanations of truth per se turn out to be explanations of anything but. Moreover, it's a rather strange one, at that. A language that dispensed with all truth predicates wouldn't thereby eliminate the facts about truth per se, which would still be the facts about what's needed to convert our sufficiently justified beliefs into knowledge, and to be preserved in valid inference, and the like. The substantive noun *truth* may very well be Austin's camel of a logical construction, but the truth of a bearer doesn't dematerialize simply because we take leave of the material mode of speech—however pleasant the view of the desert is from the formal mode up above.

8 A remark on a minimalist explanation

Premise (2) of the argument for *Adequacy* states that the minimal theory uses only the resources provided by *Modified* to generate explanations, and thus to explain all the facts about truth per se. Scrutiny of a prototypical example of a minimalist explanation will help assess this premise.

Recall that Horwich (1990/1998, §2.3) gave three prototypical examples purportedly demonstrating the power of the minimal theory to explain certain particular and more general facts. One such example was an explanation of the fact that snow is white—or, fungible and perhaps more à propos, the fact that exceptional claims require exceptional evidence, which—following Horwich’s example—can be putatively derived from the expressions *what Hitchens said was true* and *what Hitchens said was that exceptional claims require exceptional evidence*:

- (5) $(\exists!x)(\text{Hitchens said } x \wedge x \text{ is true})$.
- (6) $(\exists!x)(\text{Hitchens said } x \wedge x = \langle \text{exceptional claims require exceptional evidence} \rangle)$.
- ∴ (7) $\langle \text{exceptional claims require exceptional evidence} \rangle$ is true.
- (8) $\langle \text{exceptional claims require exceptional evidence} \rangle$ is true iff exceptional claims require exceptional evidence.
- ∴ (9) exceptional claims require exceptional evidence.

Although not every fact involving truth will be a conclusion of the above form, Horwich’s prototypical example generally suggests that the conclusion of any deductively sound argument implicating *Equivalence* in this way will serve as a fact to be explained. In the particular example at hand, the putative explanandum explained by the minimal theory is the fact that exceptional claims require exceptional evidence (the fact that snow is white, etc.).

But being derived from a set of truths—even truths instantiating *Equivalence*—hardly makes the fact that exceptional claims require exceptional evidence a fact involving truth, much less a fact about truth. So minimalists seem to face another dilemma: either the indefinitely many ‘facts about truth’ akin to *snow is white* are actually immaterial to truth, in which case Horwich’s example does not exemplify anything relevant, or else—if they are genuine facts about truth—narrow puritanical minimalism faces Lewis’s (2001) criticism inasmuch as the correspondence theory does.²¹ That is, it has become a theory of ‘the existential grounding of all manner of other things, and not especially of truth’, as Lewis (2001, p. 278) put it, insofar as the facts about truth per se turn out to be about the surface reflectance properties of precipitation, standards of justification, and nearly everything else under the sun.

We can discern what’s amiss, here, upon recognizing that the example requires reformulation to even go through. When Hitchens said something, he said it in English at a particular time in a particular location in a particular context, etc.; among his English sayings were finite clauses such as *exceptional claims require exceptional evidence*. But no finite clause said by Hitchens with such-and-such acoustic features in context *c* at time *t* and location *l*, etc., equals the unique proposition expressed by it, though certainly the saying might express one if there are any to be expressed. This

²¹ See David (2004) for a vigorous critique of Lewis’s argument.

is a glitch, but one easily solved: replace *said* with *expressed* and replace the instance of *Equivalence* in (8) with its corresponding instance of *Modified*. This clarification of minimalists' position on their behalf implies that the fact to be explained isn't the finite clause in English, *exceptional claims require exceptional evidence*, but the proposition, $\langle \text{exceptional claims require exceptional evidence} \rangle$, expressed by it.

While this reformulation improves Horwich's argument, the reformulation implies that this subset of the facts to be explained are really just Fregean facts—i.e., true propositions (e.g., Horwich 2008b, p. 268).²² And now an old problem appears anew. If we're to take seriously Horwich's prototypical example of minimalist explanations, then minimalists must discriminate among, and specify, the facts about or involving truth—i.e., the true propositions involving truth—in advance of deploying the minimal theory that putatively explains them. But it's far from clear that minimalists, by their minimalism, have the resources by which to do so—this, a familiar critique. On the other hand, we could stipulate on behalf of minimalists that the 'facts' need not be specified in advance of the theory; but minimalism would then be no different from any other theory that 'explains' the truths about truth by using the material conditional to derive the truths about truth from themselves. Either way, Horwich's prototypical example of a minimalist explanation appears to be explanatorily inadequate; premise (2) is false, the argument—again—unsound.

9 Supplementary theories

Premise (3) of the argument for *Adequacy* implicates supplementary theories. For Horwich, some such datum ϕ_k involving truth is explainable by the minimal theory, in combination with supplementary theories about that phenomenon, just in case some proposition about ϕ_k is deducible from those combined theories. It's not fully clear what the cohesive relationship is between the minimal theory and supplementary theories, however. As Horwich observed, 'the minimal theory cannot be regarded as the set of [instances of *Modified*]; for there is no such set' (1990/1998, p. 20 fn. 4). Of course, if the minimal theory isn't a set, then set-theoretic union isn't what relates it to any supplementary theory. At best, only fragmentary subsets of the minimal theory can be utilized. (Which ones, though, is also unclear—minimalists offer no criteria for selecting among the subsets.)

Sorting out the combinatory relationship is a minor technical issue. But even once sorted out, observe that *Adequacy* can be correct only if there are always adequate

²² Minimalists presume that another 'fact involving truth' is that propositions are the proper bearers of truth—the existence of which, they contend, follows from there being something that is said or expressed by utterances of sentence types. So from the minimal theory it follows that there are propositions; from which it follows that it's a fact that propositions exist. We can then say that the invocation of *Modified* explains the fact that the proper bearers of truth are propositions if it is one. So should non-propositionalists about truth-bearing—Brentano, Field, Grover, Kitcher, Quine, Churchland, Rojszczak, Collins, etc.—be led to infer that the minimal theory adequately explains the fact that the proper bearers of truth are propositions? Surely not. For it's patently unclear that there is any such fact. No one taking up a neutral perspective would suppose for a minute that the minimal theory is sufficient for explaining any of the facts involving truth independent of the minimal conception that sets its explanatory agenda. If there are fact-makers about truth, they ought not be our own theories of truth.

supplementary theories for explaining the phenomena with which truth is related. In epistemically ideal situations, there may be multiple supplementary theories adequate for explaining some ϕ_k —and at many different levels of explanation, to boot. Unfortunately, knowledge in the sciences and humanities is not always so privy. There's a strong likelihood that some facts involving truth's relations with other phenomena will be recalcitrant or otherwise unexplainable solely on the basis of *Modified*, and for which we have no current supplementary theories that are themselves explanatorily adequate. Yet, if there is no (correct) supplementary theory yet formulated for that fact, no deduction can be effected such that ϕ_k could be explained. Of course, this problem can be easily resolved, but only by restricting the scope of *Adequacy*.

Assuming that minimalists can articulate how their minimal and supplementary theories are combined and show that there are always supplementary theories available for combination, those theories must provide a correct explanation of the phenomena in their domain. (Otherwise, the truth about truth's relations to other phenomena would be deduced from false premises.) However, the correctness of the explanations churned out by those supplementary theories must consist in something other than the facts involving truth. This point was nicely put by David:

Sure enough, most facts involving truth will also involve other phenomena. But many facts about other phenomena will also involve truth. If all facts from theories about other phenomena, including the ones that also involve truth, can be invoked to explain the facts involving truth, then [*Adequacy*] is empty and cannot serve to support the minimalist view that the minimal theory is the right theory of truth—any 'theory' of truth can 'explain' the facts involving truth, when combined with the facts involving truth. (2002, p. 164)

Thus, even if we stipulate that there are always explanatorily adequate supplementary theories available for some kind of combination with the minimal theory, the explanatory resources of those supplementary theories must be truth-free. The burden is on minimalists to demonstrate this.

To sum up so far, we can grant that Horwich is right to think that zoological theories of elephants are irrelevant to the project of accounting for the size of electrons; still, the very appeal to supplementary theories to do the explanatory legwork is problematic. *Adequacy* is correct only if further implausible assumptions hold—specifically, that explanations of the facts involving phenomena related to truth are correct and do not themselves involve any facts involving truth, and that there are always supplementary theories adequate for explaining all the facts that the minimal theory cannot. So, probably, premise (3) is false de facto—even if both *Puritanical (narrow)* holds and the minimal theory by itself is sufficient to explain all of the facts about truth per se.²³

²³ Of course, the minimal theory can always be conveniently shielded from falsification by rejecting one or more of its supplementary theories (see Duhem 1914/1954).

10 Conclusion

The conclusion in (4) also seems implausible on independent grounds. If we assume the best theory of truth is an alethic theory that's not only sufficient for explaining all of the facts involving truth but also the simplest or most minimal, then *Adequacy* amounts to the claim that the minimal theory is the best theory of truth (Horwich 1990/1998, p. 22). This claim can be broken down into three subclaims,

*Adequacy*₁: The minimal theory is a theory

*Adequacy*₂: The minimal theory is a theory of truth

*Adequacy*₃: The minimal theory is the best theory of truth

which—once unpacked—make gainsays about its status easier to understand (David 2002, p. 162).

As Sher observes, theories are typically stocked with a finite number of what she calls 'high-level principles' (2004, p. 14; 1998, p. 143). These are very general, schematic, and incomplete—even oversimplified—descriptions of some target analysandum that must be embedded in a matrix of other non-trivial principles, constraints, and assumptions of various degrees of generality and particularity for theory construction to get underway. Moreover, theories typically exhibit some degree of internal systematicity, in that they exhibit significant connections among their general or high-level principles. Familiar theories—Wegener's theory of continental drift, Brentano's theory of judgement, Chomsky's universal grammar, Brandom's inferentialism, Millikan's theory of teleosemantics, etc.—are like this. The 'principles' of the minimal theory, however, comprise an infinite unordered collection of inferentially disparate propositions. But if mere collections are inapposite entities for bearing truth, then it cannot be a theory if by *theory* we mean something that must minimally be truth-apt. Moreover, where propositions have concepts as their component parts, then the infinite number of propositions aggregates every possible concept (see Gupta 1993). Or as Künne put the objection, the minimal theory is conceptually maximal: 'As it contains all propositions which can be expressed by non-pathological instances of [*Equivalence*], it comprises each and every concept expressible in English' (2003, p. 324). Since no other familiar theory is so constituted, then, with regard to *Adequacy*₁, it's unclear why the minimal theory should be construed as a theory at all. One might be forgiven for thinking that something turns on this point: if not a theory, then it's neither a theory of truth much less the best theory of truth.

With regard to *Adequacy*₂, the minimal 'theory' is no more a theory of truth than it is a theory of propositions. So even if it is a theory, then the minimal theory is as much a semantic theory as an alethic theory. Ironically, this violates the spirit of *Puritanical* (*narrow*), contravening Horwich's insistence that theories of truth should be theories of only truth. Some philosophers have further questioned the minimal theory's credentials as a theory of the property being true. For example, as Greimann observed, *Modified* does not implicitly define truth so much as specify a class of properties coextensive with truth: '[t]he property that is actually 'implicitly defined' by the minimal theory is not a property of propositions, but a property of properties of propositions, viz., the property of being a property F such that for all p: F ⟨p⟩ iff p, which may be read as the property of being coextensive with truth' (2000, p. 138).

Greimann's observation raises the question of whether truth itself is properly defined by the minimal theory.

Even if *Adequacy*₁ and *Adequacy*₂ were correct, it wouldn't guarantee that *Adequacy*₃ is too. Numerous other conceptions also lay claim to defining truth (Horwich 1990/1998, pp. 133–35); not only is the minimal 'theory' compatible with numerous other theories of truth that acknowledge the existence of propositions, but the minimal conception contains no resources for supposing that other theories—especially those that offer solutions to the paradoxes—cannot generate explanations that are at least as good as the minimal 'theory'. So it's hardly obvious that the minimal 'theory' is the best such theory of truth. We might contend that *Adequacy* is likely to be correct were there no competitors that explain all the facts as well as or better than the minimal theory. Have minimalists conclusively shown this to be the case? Not remotely. Moreover, *best* may be a bar too low. Since *best* need not mean correct, the possibility remains that the minimal 'theory' is incurably bad but nevertheless provides the best explanations relative to a field of really awful theories. So showing that the minimal 'theory' is the best theory of truth is not yet to demonstrate that *Adequacy* is correct.

To conclude, this paper shows that minimalism suffers from some problems. While an eminently important text on the subject, Horwich's (1990/1998) *Truth* offers no sustained critique of inflationism. And while Horwich is very clear about what he takes the main objection to inflationism to be, that objection founders on its own terms. Another is that Horwich's subsequent 'reversal of explanatory direction' fails to make contact with the theories it aims to replace, and incurs the untoward explanatory burden of fully determining the facts involving truth—a task that minimalists aren't likely able to do without begging the question against their opponents. These final few sections have articulated the argument for *Adequacy*, critiqued a prototypical example of a minimalist explanation, and given a few additional reasons for being suspicious of *Adequacy*. Again, these results shouldn't necessarily be taken to imply substantivism, and so shouldn't be taken to signal any agreement with Horwich's concession that a carefully qualified *T* will be correct or descriptively adequate. That claim is still an open question, and inflationists still need independent positive arguments to support their conclusions about the robustness of the nature of truth. But we should be wary of minimalism.

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