

# Fundamentality, Grounding and Dependence

Philipp Keller\*

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## Truthmaking and Explanation

Kierland and Monton 2007, Tallant 2009 and 2010: Why should we not just deny that truth must be grounded, rather than burdening ourselves with the difficult tasks of providing present and actual truthmakers for tensed and modal truths?

We should accept the demand for truthmakers, I will argue, because understanding truth as a derelativisation of a metaphysically prior relation of truthmaking allows us to explain *why* “[n]o sentence is true but reality makes it so” (Quine 1970: 10). This *sui generis* type of explanation has been overlooked (Daly 2005; Liggins 2005), when enemies and false friends of truthmaking argued that weaker truthmaking principles than maximalism (every truth made true) may satisfy our demands for explanation and that the truthmaker principle should be weakened to some general supervenience claim, providing ‘truthmaking without truthmakers’.

The principal motivation of truthmaker theorists, I submit, is the following: truth has to be grounded in reality – which means that it has to be explained by *things*. Therefore, truthmaking – explanation by things – has to be distinguished from explanations why some sentences (including sentences ascribing the truth-predicate) are true. Such a theory of truthmaking as explanation by things is explanatory in two ways: it is an explanatory theory of *truth*, and it explains how truths are grounded in reality.

TTT is an explanatory theory of truth in virtue of the claim that truth is a derelativisation of a metaphysically prior cross-categorical relation of truthmaking: being true is nothing but being made true by something. Truthmaking without truthmakers will not achieve this task: while to say that some truthbearer *x* is true iff *p*, for some sentence “*p*”, may be an statement of a criterion of material adequacy for definitions of the truth-predicate for some language (Tarski 1935) or the schema for the axioms of a theory about what we are competent of if we grasp the concept of truth (Horwich 1990), it is not a theory of the *property* of truth.

It is a mistake to think that the explanations of truths offered by truthmaker theory are claims to the effect that they have such-and-such truthmakers. Consider:

- (1) Sam is a dog because “Sam is a dog” is made true by Sam.
- (2) “Sam is a dog” is true because it is made true by Sam.
- (3) “Sam is a dog” is true because of Sam.

As opponents of truthmaker theory have pointed out, both (1) and (2) are false. (3), however, is true and provides an explanation of why “Sam is a dog” is true.

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\*University of Geneva, Switzerland, philipp.keller@unige.ch.

## An illustration: cheating presentists

It has been recently argued, by Gallois (2004: 649), Kierland and Monton (2007: 490), Tallant (2009: 423) and Sanson and Caplan (2010: 38), that presentists may legitimately dodge the truthmaker requirement by weakening the truthmaking principle to supervenience of truth not on how things are, but rather on how they are, were or will be. But this would radically distort TTT: the restricted principle would explain the (present) truth of some past- or future-tensed sentence by *another* sentence, which does its (present) explaining only if it is (presently) true. No explanation by things is provided: the bulge in the carpet is just moved to another sentence.

Not just the explanandum, however, but also the explanans is of the wrong kind. What the past events made true and what the future events will make true are not, after all, sentences like “Caesar crossed the rubicon” or “There will be a fox in the garden”, but rather sentences like “Caesar crosses the rubicon” and “There is a fox in the garden”. To make the past- and future-tensed sentences true, we need to incorporate the pastness and futurity into the truthmaker – exactly what the weakening of the truthmaking principle was supposed to avoid. Because truth has to be grounded, the present truth of the past-tensed sentence is in need of a present ground – the past ground of its present-tensed cousin will not do; not just because it is past, but because it is not a ground of *this* truth.

## Another illustration: cheating operationalists

Mulligan (2010) objects to the “modest account of truth” of Künne (2003), and indeed all accounts of truth which take the truth-predicate “...is true” as their *definiendum*, that the truth connective “it is true that ...” (which takes a sentence to make a sentence) is more fundamental.

**Mod**  $\forall x(x \text{ is true} \leftrightarrow \exists p(x = [p] \wedge p))$  (2003: 337)

He thus criticises the contention of Künne (2003: 350–351) that his account of the predicate also applies to the connective, which the latter interprets as also containing a predication of the truth-predicate, the “it” in “it is true that ...” functioning cataphorically, by providing the thing referred to by the subsequent noun phrase “that *p*” (cf. also Horwich 1998: 16, n.). By undermining the need for propositions, Mulligan’s criticism undercuts Künne’s argument for his modest account of truth. In the case of truth-attributions, we have an intermediate step:

- T<sub>1</sub>** It rains.
- T'<sub>1</sub>** It is true that it rains.
- T<sub>2</sub>** That it rains is true.
- T<sub>3</sub>** The proposition that it rains is true.

While Mulligan agrees with Künne (and Bolzano), that the step from **T<sub>1</sub>** to **T'<sub>1</sub>** and the concomitant ‘introduction’ of that-clauses is unproblematic, he thinks that the one from **T'<sub>1</sub>** to **T<sub>2</sub>**, and its ontological commitment, can be resisted. Mulligan (2010: 567, 569) claims that

- M<sub>1</sub>** It is true that it rains because it rains.
- M<sub>2</sub>** That it rains is true because it is true that it rains.
- M<sub>3</sub>** The proposition that it rains is true because that it rains is true.

According to Mulligan’s picture – and contrary to Frege, Bolzano and the contemporary orthodoxy – belief is not conceived of as a propositional attitude: to believe that *p* is *not* to stand in a relation to the referent of “that *p*”. Rather, “believes that ...” is a predicate-forming operator which, combined with a sentence, ascribes a property of having a belief of a certain kind or rather describing such a property.

Mulligan’s point is inscribed into a more general strategy of making good on the Husserlian claim that “ground” and “explain” derive from “because” (Mulligan 2004: 391). As Correia (2010: 254) stresses,

the main motivation for the operationalist view are “reasons of ontological neutrality: it should be possible to make claims of grounding and fail to believe in facts”. This is also why Fine (forthcoming: 13) opts for a notion of ground as an essential operator. Analogously, we may understand Mulligan as urging that we may believe in claims of the forms “it is true that  $p$ ” and “ $a$  believes that  $p$ ” without believing in truths or objects of beliefs.

While they think they agree on  $\mathbf{M}_1$  and  $\mathbf{M}_3$ , they argue about  $\mathbf{M}_2$ . The real question, however, is how the operationalist can account for  $\mathbf{M}_3$ . Künne can say that it is because of the essence of the proposition that  $p$ , because of the meaning it has, that it is true iff  $p$ . It is not clear, however, how Mulligan’s anemic operator-theory can match this. The question is not so much whether one’s account of truth allows us to *accept*  $\mathbf{M}_1$  – it is rather what resources it does provide to *explain*  $\mathbf{M}_1$ .

If we do not identify, in  $\mathbf{M}_1$ , an attribution of the property of truth to some truthbearer, we have no possibility whatsoever to explain *its* truth. We simply postulate a brute explanatory connection without earning our right to do so. Künne is right that an account of truth goes in tandem with an account of truthbearers and right to resist the invitation to do away with this ontological commitment by becoming ‘operationalist’. Accepting truthbearers that have their meaning essentially in addition has the advantage that one earns the right to  $\mathbf{M}_1$ , i.e. to an explanation of the Aristotelian equivalence. In order to *explain*  $\mathbf{M}_1$  (not just to assert) it, however, one has to go further and accept a real relation, underwriting the explanation of truth: truthmaking. Rather than trying to have truth without truths, as Mulligan would have it, or having truthmaking without truthmakers, as is Künne’s intent, we should be staunch realists about all four of them: truth, truths, truthmakers and truthmaking.

## A Fine Starting Point

Fine (2001: 3) distinguishes two notions of metaphysical reality:

**what is factual** : “...metaphysical reality is to be identified with what is “objective” or “factual”. The antirealist, on this conception, denies that there are any facts “out there” in virtue of which the propositions of a given domain might be true. The propositions of the domain are not in the “business” of stating such facts; they serve merely to indicate our engagement with the world without stating, in objective fashion, how the world is. As familiar examples of such a position, we have expressivism in ethics, according to which ethical judgements are mere expressions of attitude; formalism in mathematics, according to which mathematical statements are mere moves within a system of formal rules; and instrumentalism in science, according to which scientific theories are mere devices for the prediction and control of our environment.”

**what is fundamental** : “...metaphysical reality is to be identified with what is “irreducible” or “fundamental”. On this view, reality is constituted by certain irreducible or fundamental facts; and in denying reality to a given domain, the antirealist is claiming that its facts are all reducible to facts of some other sort. Thus the ethical naturalist will claim that every ethical fact is reducible to naturalistic facts, the logicist that every mathematical fact is reducible to facts of logic, and the phenomenalist that every fact about the external world is reducible to facts about our sense-data.”

I think this is exactly right: there is an important distinction between the two notions and they are two-way independent. In ethics, for example, you may be an expressivist without being a naturalist or you may be a naturalist without being an expressivist.

For our purposes, the two notions may be distinguished by the relations expressivists and physicalists claim to hold between the domains of moral and psychological, and psychological and physical facts respectively:

**physicalism** : the mental is nothing over and above the physical, the world is fundamentally phys-

ical, attributions of mental predicates have physical truthmakers;  
**expressivism** : moral language is not descriptive, not in the business of stating facts; to attribute wrongness to an action is to express disapproval of it.

In my view, the two claims have to be sharply distinguished, to understand one of them on the model of the other is to misunderstand them. So it is a mistake to think that physicalism is committed to some claims about moral vocabulary or about what attributions of mental properties are ‘about’, and it is also a mistake to think that the perspectival character of moral thinking that motivates the expressivist has implications about the nature of values. The two positions sketched rather correspond to various brands of reductionism and relativism:

**reductionism / eliminativism** : psychological language is definable in terms of the physical; saying that Sam is in pain is attributing to him a certain brain-state; mental generalisations are not law-like, they do not carve nature at its joints;

**subject relativism / buck-passing** : what makes a certain act wrong is that we (or: idealised subjects) do (or: should) disapprove of it; moral properties supervene on psychological properties.

At least *prima facie*, the two distinctions thus cross-cut. The physicalist-cum-expressivist holds the following, while the reductionist buck-passer has “psychology” and “morality” switched:

	factual	non-factual
non-fundamental	psychology	morality
fundamental	physics	

## Grounding both the non-factual and the non-fundamental?

Even though Fine distinguishes the questions of the fundamental and factuality of some domain of facts, he attempts to model them in terms of one notion of grounding, of which in Fine (forthcoming) he distinguishes three types, corresponding to three, mutually irreducible notions of necessity (cf. Fine 2002):

**metaphysical grounding** : the fact that the ball is red and round obtains in virtue of the fact that it is red and the fact that it is round;

**natural grounding** : the fact that the particle is accelerating obtains in virtue of the fact that it is being acted upon by some net positive force;

**normative grounding** : the fact that his action is wrong obtains in virtue of the fact that it was done with the sole intention of causing harm;

Of the first, metaphysical, kind of grounding, Fine gives the following examples:

- the fact that the ball is red and round is grounded in the fact that it is red and in the fact that it is round (forthcoming: 1);
- (on a three-dimensionalist view) the fact that a temporal part of an object exists at a given time is grounded in the fact that the persisting object exists at that time (forthcoming: 4);
- as a matter of logic,  $A, B$  together ground  $A \wedge B$  (forthcoming: 21)
- as a matter of logic,  $A, B$  separately ground  $A \vee B$  (forthcoming: 21)
- as a matter of logic,  $Fa, a\exists$  together ground  $\exists x(Fx)$  (forthcoming: 22)
- as a matter of logic,  $Fa_1, \dots, Fa_n, D(a_1, \dots, a_n)$  together ground  $\forall x(Fx)$  (forthcoming: 24)
- the fact that the ball is coloured is grounded in the fact that the ball is red (forthcoming: 39)

In both Fine (2001: 16) and Fine (forthcoming: 2), Fine characterises a statement of metaphysical ground as an “ultimate explanation” and as “as strict an account of the explanandum as we might hope to obtain”. In both his earlier and his most recent work, he regards the talk about facts dispensable, as a construal in terms of a sentential operator is available:

For we might express statements of ground in the form ‘ $S$  because  $T, U, \dots$ ’, as long as the ‘because’ is taken in a suitably strong sense, and thereby avoid all reference to propositions or facts or to the concept of truth. (Fine 2001: 16)

“Because” is factive: if  $p$  because  $q$ , then it is the case that  $p$  and that  $q$ . There are no explanations of falsehoods. How then do we get a comparative notion, allowing us to say that some items are ‘less’ part of reality? As by his general policy on such matters, Fine says that grounding is metaphysical neutral. However, matters are not as clear-cut as they should be. Even though he says that “there is no need to suppose that a ground is some fact or entity in the world or that the notion of ground is inextricably connected with the concept of truth” (Fine 2001: 16) and allows for grounding relations both among the factual and among the non-factual (though not, as we will see below, between the non-factual and the factual), he nevertheless *interprets* grounding claims in terms of truthmaking:

We may not take facts seriously in our ontology, or in formulating statements of ground, but they provide us with a good basis for constructing a model theory for the logic of ground...[...] Under the present fact-based semantics, we have the following account of ground-theoretic consequence:

$A_1, A_2, A_3, \dots \geq C$  obtains iff whenever  $f_1$  verifies  $A_1$ ,  $f_2$  verifies  $A_2$ ,  $f_3$  verifies  $A_3$ , ...then  $f_1 \sqcup f_2 \sqcup f_3 \sqcup \dots$  verifies  $C$ .

The verifiers of the antecedent truths  $A_1, A_2, A_3, \dots$  will cooperate, so to speak, in verifying the consequent  $C$ . (Fine forthcoming: 16–17)

Claims to non-seriousness notwithstanding, Fine does seem to be unsure about the ontological implications of grounding claims. The case of conjunctive facts is a good illustration of his wavering: While Fine (2001: 15) says someone claiming that conjunctive facts are grounded in their conjuncts may be adopting “a metaphysically neutral stand on whether there really are conjunctive facts”, he says one page later that “we are not inclined to think of the truth of a grounded proposition as a *further fact* over and above its grounds, even though it may be distinct from its grounds and even though it may itself be a real fact”. So is the conjunctive fact a fact *over and above* the facts that are its conjuncts? Fine does not clearly say. He does say at least this:

It is not implied that the explanandum just *is* the explanans (indeed, in the case that there are a number of explanantia, it is clear that this requirement cannot be met). Nor need it be implied that the explanandum is unreal and must somehow give way to the explanantia. In certain cases, one might wish to draw these further conclusions. But all that is properly implied by the statement of (metaphysical) ground itself is that there is no stricter or fuller account of that in virtue of which the explanandum holds. [footnote:] My remarks on this point in Fine ([2001], p. 16) have been misinterpreted. (Fine forthcoming: 2)

It seems to me that we should take a step further than Fine and explicitly distinguish (his notion of) grounding and determination. This, I think, is not something Fine could agree with. Even though Fine (2001) carefully distinguishes the questions of grounding and determination/fundamentality, he holds that questions of factuality reduce to questions of fundamentality, because he assumes that the disagreement between a factualist and a non-factualist about some proposition concerns the factuality of some constituent of that proposition – a notion that is defined in terms of the factuality of all the propositions in which the constituent (a particular or property) has ‘primary employment’. It seems to me that there is *another* notion of fundamentality of ‘constituents’ that is not derivative from the status of propositions in which they occur. It is in terms of this other notion, it seems to me, that the physicalist about the mental (contrary to the expressivist about the moral) frames his thesis. On this, not Fine’s understanding, of “fundamental”, Fine’s principle (g) is false:

[W]henver a constituent occurs in a true basic factual proposition and also occurs essentially in some true factual proposition, then any ground for the latter must contain the constituent. (Fine 2001: 18)

Fine justifies this principle in terms of his notion of “fundamentality” as follows:

If a given constituent  $C$  occurs in a true basic factual proposition then it must be a fundamental element of reality. But if some true factual proposition contains  $C$  essentially, it must be true in virtue of some feature of  $C$ . But given that  $C$  is a fundamental element of reality, this feature of  $C$  cannot be grounded in something that did not involve  $C$ . (Fine 2001: 21)

I disagree with the second sentence of this quote: It does not follow from a proposition’s being factual that it wears its truthmaker on its sleeve, as it were. “Socrates exemplifies redness”, for example, may well be true, factual, and contain “exemplifies” essentially.<sup>1</sup> But it does not follow, on my understanding of fundamentality, that “Socrates exemplifies redness” cannot be grounded in “Socrates is red”.<sup>2</sup>

## Two notions of grounding

Fine thinks that grounding is determination, while I think it may also be constitution. Contrary to Fine, I think that there are two relations corresponding to the two notions of metaphysical reality:

**constitution** : If something is constituted by something else, it is a *manifestation* of the latter, an *aspect* of it, perhaps an *abstraction* of it. It is natural to take manifestations of other things to be “less objective” than them, “less substantial”, and it is a natural thought that these entities of a “lesser sort” do not *really* exist, that our ontological commitment is only to what grounds them, especially if “metaphysical reality is to be identified with what is “objective” or “factual”” (Fine 2001: 3).

**determination** : What determines what? If  $a / F / a$ ’s being  $F$  determines  $b / G / b$ ’s being  $G$  either qualitatively, essentially or existentially, the first relatum is *responsible* for the second being such-and-such, being the thing it is, being. It is so responsible because it *makes* it so. In this sense, we may say that particulars are determined by the universals they exemplify, boundaries are determined by what they are boundaries of, tropes are determined by their bearers. Even someone may restrict our notion of metaphysical reality to “what is “irreducible” or “fundamental”” (Fine 2001: 3), saying that some entities are determined by others *presupposes*, rather than does away with, the claim that they exist.

To the two metaphysical structuring relations, correspond two versions of Moore’s open-question argument:

**why  $A \rightsquigarrow B$ ?** : why should feature  $A$  give rise to feature  $B$ ? in virtue of what is it that something that is  $A$  also is  $B$ ? (compare Lewis’ question to Armstrong: in virtue of what does  $N(F, G)$  ground  $\forall x(Fx \rightarrow Gx)$ ?)

**why  $\forall x(x \rightsquigarrow A \rightarrow x \rightsquigarrow B)$ ?** : why should what makes something  $A$  *ipso facto* make it  $B$ ? (compare Eutyphro’s question: why should what makes the God love him also make him pious?)

<sup>1</sup>Fine (2001: 18) defines the notion of essential containment of a constituent as follows: “Say that a proposition *essentially* contains a given constituent if its replacement by some other constituent induces a shift in truth-value.” Even if “Socrates exemplifies redness” is true, “Socrates hates redness” may still be false.

<sup>2</sup>A related criticism, using the same example, has been made by Paul Horwich (2007: 8). Fine (2007: 18) replies that the ‘holistic’ elimination procedures of which this is a special case only apply to non-factual constituents and so apply *because* these are non-factual. But this simply begs the question against someone who thinks that pleonastic entities may be essential constituents of factual discourse.

The main difference between constitution and determination may be characterised metaphorically by their ‘direction’. Determination is a vertical relation, as it were, structuring reality and non-reality in different layers, that are more or less fundamental. The physicalist says that psychological facts are determined by physical facts, but may still believe that they are real: it is just that he does not believe they are fundamental.

Constitution or grounding may hold horizontally, among equally fundamental things.<sup>3</sup> The expressivist who believes that this baby’s being tortured being morally wrong is grounded in what moral sentiments we should have with respect to it does not have to claim that our (obligatory) moral sentiments *determine* the wrongness of the torturing.

One way of distinguishing grounding (in Fine’s sense) or constitution from determination is in terms of the contrast between the sentential “because” and the functor “because of”. While the expressivist may be happy to hold that “torturing this baby is wrong because we should disapprove of it”, he is not committed to “torturing this baby is wrong because of our disapproving of it” – his quest is about the status of the *truth* itself, not about its truthmaker. He is not even committed to claiming *that* torture is wrong. Grounding is metaphysically neutral in this sense.

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<sup>3</sup>Fine does allow for one kind of “horizontal” grounding, which is sameness of ground-theoretic role. The pair of truths that John is married to Mary and that Mary is married to John, the pair of truths of the form “ $\exists xFx$ ” and “ $\exists yFy$ ” and the pair of truths of the form “ $Fa$ ” and “ $Fb$ ”, where “ $a$ ” and “ $b$ ” are two directly referential names for the same object, as thus said to *weakly ground* each other: whatever is grounded with the help of the one is grounded with the help of the other. This sense of “horizontal” is not to be read ontologically, however:

We might think of strict ground as moving us downwards. It takes us to a lower level of explanation and, for this reason, cannot be circular. As we move downwards, the original explanandum cannot return in the form of the explanans. Weak ground, on the other hand, may also move us sideways. It may take us to an explanans at the same level as the explanandum and, for this reason, may be circular, with statements at one level being ‘explained’, or equivalently expressed, in terms of other statements at that level. (Fine forthcoming: 9)

Clearly, Fine is here thinking of an explanatory structure of degrees of primitiveness, not of an ontological layering of reality.

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