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### Truthmakers for negative truths

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## TRUTHMAKERS FOR NEGATIVE TRUTHS

George Molnar<sup>1</sup>

What makes negative statements true? I position this old question in the context of a realist metaphysics, described by four propositions: (i) the world is everything that exists; (ii) everything that exists is positive; (iii) some negative claims about the world are true; (iv) every true claim about the world is made true by something that exists. (i) to (iv) jointly imply that negative truths must have positive truthmakers. What are these positive truthmakers? I examine standard answers (incompatibility, negative facts, totality facts, supervenience, modal weakening) and indicate difficulties facing each. We do not have a satisfactory theory of truthmakers for negative truths. Each of (i)-(iv) is individually plausible, but the quartet may not be co-tenable.

### I. Which Statements State Negative Truths?

Intuitively statements divide into positive ones which state that something *is*, and negative ones which state that something *is not*. All theories according to which truth is ontologically grounded in some kind of world-to-word relation have problems with negative statements. It may be reasonable to hold that on the world end of a positive statement there is something, an actual object or a state of affairs, that serves as truthmaker. But what is there in the world that makes true statements according to which something is not? That is the problem I want to discuss in this paper.

The intuitive distinction between positive and negative truths seems correct, but it is not easy to find any general principles of demarcation. For instance, it is not possible to use the occurrence of the negation operator as a syntactic criterion for the positive statement/negative statement distinction. One cannot identify negative statements with negated statements since some unnegated statements are logically equivalent to statements in which negation occurs essentially. The interdefinability of the universal quantifier with the negated existential quantifier is one example. Contraposition is another. Even for unquantified statements the distinction cannot be drawn by the presence or absence of external or internal negation operators. Just as statements of the form '*a* is F' do not always state positive facts, so statements of the forms 'It is not the case that *a* is F', and '*a* is not F', do not always state negative facts. This is because some predicates are implicitly negative. Some of the substituents for 'F' in the above do not attribute properties or positive characteristics to *a*, but rather deny that such properties or positive characteristics are attributable to *a*. It is not possible to identify these negative predicates purely

<sup>1</sup> *Editors' Note.* George Molnar, whose paper, 'Truthmakers for Negative Truths', we publish here, died on 30 August 1999, eight days after submitting the final version of the paper. His partner, Carlotta McIntosh, is collecting material for archival purposes, and/or eventual publication, and would appreciate any help in finding letters, emails, papers, articles, etc.

syntactically, e.g. in terms of prefixes like 'un', 'in', 'a', 'an', 'anti', 'dis', 'non', or suffixes like 'less'. Some words not so constructed still denote the lack of positive characteristics (e.g. 'blind', 'deaf').

We probably cannot get a formal criterion of demarcation between positive and negative statements. But we can still draw the distinction in a piecemeal fashion and by a method that is partly *a posteriori*. First, we note that there are classes of predicates with heteromorphous negations. Such predicates denote attributes of a certain kind but their negations do not. For example, the negation of a natural kind term is not itself a natural kind. Similarly for an expression denoting a determinable property, a determinate property, a genus, a species, or a causal power.<sup>2</sup> It seems to me that these features of language capture something significant. The denotata of these negated predicates do not have the sort of coherence and unity that a property must have; they do not have a nature or essence of their own and could not form the basis of any possible taxonomy of entities. Ulysses S. Grant once said, 'I can recognise two tunes. One is Yankee Doodle, the other isn't.' A heteromorphously negated predicate also denotes a multitude. There is a case then for saying that natural kinds, determinables, species, and dispositions are *essentially positive* properties because the negations of the expressions which refer to them do not refer to properties.

To show that certain types of predicates denote essentially positive properties is not sufficient for distinguishing negative from positive statements. The next step is to identify the properties which are of the essentially positive types, and for that one needs a theory that shows what natural kinds there are and what causal powers and other positive properties they have. This theory cannot be formulated on purely *a priori* grounds but would rely on current best science. Here we find answers to the question 'Which statements state negative facts?' To say that an object has an essentially positive property, as identified on the best *a posteriori* grounds, is to state a positive fact, to negate a statement of a positive fact is to state a negative fact. This will take us only as far as current best science will allow, but that is far enough, in my opinion, to vindicate the intuitive distinction from which we started.

## II. Exclusion

The theory of truthmaking assays the ontological groundedness of true statements. From within such a theory it is possible to provide robust explanations according to which a statement's having the value True is determined by the existence of some individual or some state of affairs. The simplest theory of truthmakers for negative statements would say that for every negative statement stating that *a* does not have the property F (or that there are no *F*s), there is a positive state of affairs which excludes *a*'s being F (or excludes the existence of *F*s). I use 'excludes' here in the sense that one particular, *A*, excludes another, *B*, if *A* and *B* cannot co-exist of strict necessity.

**Definition 1**     *A* excludes *B* iff necessarily, if *A* exists then *B* does not exist.

<sup>2</sup> The point has been noted, with respect to powers, in Ellis & Lierse [6], pp.9-10.

This defines Exclusion in terms of ontological incompatibility. I here adopt the *broad* interpretation according to which necessity in Definition 1 includes both logical and nomological necessity. ‘The Danube is not blue’ has as its truthmaker the greyness of the Danube; ‘There are no Australian presidents’ has as its truthmaker Australia’s monarchical Constitution. These are examples of truthmaking based on logical incompatibility. If  $a$  and  $b$  are two electrons, then ‘ $b$  is not in quantum state  $\phi$ ’ has as its truthmaker  $a$ ’s being in quantum state  $\phi$ . This is an example of truthmaking based on nomological incompatibility. Others may want to adopt a *narrow* interpretation according to which necessity in Definition 1 is restricted to logical necessity and hence Exclusion is defined solely in terms of logical incompatibility.

The attraction of Exclusion is its apparent ontological economy. It looks as though by adopting it one avoids having to postulate negative facts. On this theory one only admits positive states of affairs as excluders and hence as truthmakers.

Reinhardt Grossmann follows Russell in raising an interesting objection to attempts to explain negative truths by reference to their incompatibility with positive truths.<sup>3</sup> We can only explain the truth of  $\neg q$  by reference to the truth of  $p$  if  $p$  is incompatible with  $q$ . For the explanation to work, ‘ $p$  is incompatible with  $q$ ’ must be true. But this is a negative statement. Explanations of negative truths by incompatibility cannot succeed as reductive explanations because such explanations themselves rely on a negative statement. Grossmann’s argument can be readily translated into the language of this paper, because Exclusion is what sentential incompatibility becomes when we make a semantic descent. (I’ll not make the translation here.)

There are philosophers who hold that whereas contingent truths need a truthmaker, necessary truths do not. If the truthmaker for necessary truths is redundant, then the truthmaker for the true conjunction of contingent  $p$  and necessary  $q$  is simply the truthmaker for contingent  $p$ . Now exclusion is a necessary relation and statements of exclusion are if true necessarily true. It follows from this and the redundancy theory, that the truthmaker for ‘ $a$  is  $G$ ’ is a sufficient truthmaker for ‘ $a$  is not  $F$ ’ in those cases where  $a$ ’s being  $G$  is an excluder of  $a$ ’s being  $F$ , since the truthmaker for ‘ $a$  is  $G$ ’ is a sufficient truthmaker for ‘ $a$  is  $G$  and  $a$ ’s being  $G$  excludes  $a$ ’s being  $F$ ’.<sup>4</sup> So Grossmann’s argument is wrong to demand a separate truthmaker for the statement of exclusion.

Although there may be some necessary truths that are not in need of truthmakers, namely, formal truths (the truth-functional tautologies), material necessary statements are, *prima facie*, just modally strong claims about the world. Now it is essential to the property *being true* that it attaches to a claim about the world iff the world is as claimed. Materially necessary truths are claims about the world that are true not just ‘as things are’ but ‘as things are and no matter how things could be’. It is *qua* claim about the world that a true statement needs a truthmaker and not *qua* modally weak claim. The thesis that necessary truths do not make any claims about the world has never struck me as having any

<sup>3</sup> Grossmann [8], pp.130-131; ‘The Philosophy Of Logical Atomism’ (1918), in Russell [16], pp.213-215, and ‘On Propositions: What They Are And How They Mean’ (1919) in *ibid.* pp. 288-289; cf. Taylor [18], p.442; Findlay [7], pp.50-51.

<sup>4</sup> ‘An individual will always be an adequate truthmaker for any truth which involves only the predication of things which are part of the essence of that individual.’ Bigelow [4], p.128 (original italics).

plausibility except when applied to the tautologies. Exclusion typically turns on cases of non-formal necessary connections and disconnections (determinate exclusion, etc.). If I'm right these are still in need of truthmakers despite their modal strength. This inclines me to think that the Grossmann argument is sound, and that it accomplishes its objective of showing that Exclusion does not assign purely positive truthmakers to negative truths.

There is a second problem with Exclusion, independent of the above argument. Exclusion does not cover the full range of types of negative truths. For example: Marie is a particular atom in a pile of radium atoms. At time  $t$  Marie is not in a decay state. There seems to be no *positive* state of affairs existing at  $t$  that either logically or nomically excludes Marie's being in a decay state at  $t$ . Exclusion fails to account for what I call *purely accidental negatives*. These are negative states of affairs which are not necessitated by anything positive. Of course if you hold that the laws are contingent and ontological incompatibility is to be taken only in the sense of logical incompatibility, then you will find many more types of cases of accidental negatives. But even in the broad sense of 'incompatibility' that I adopt, the scope of Exclusion as a theory of truthmaking is not wide enough to cover the whole domain to which it has to be applied.

### III. Absences

What are truthmakers for ' $a$  is not  $F$ ' and 'Nothing is  $F$ ' in those cases where ' $F$ ' denotes an essentially positive property? We are looking for a theoretical alternative to Exclusion. Begin by noting that Exclusion fails in those cases where the only candidate for truthmaker for a negative statement is the unnecessitated absence of a truthmaker for the corresponding positive statement. Let us generalise this into a new theory:

Definition 2      $S$  is the truthmaker for  $p$  iff the absence of  $S$  is the truthmaker for  $\neg p$ .

What is the truthmaker for 'Nothing is  $F$ '? Definition 2 says it is the absence of a truthmaker for 'There is an  $F$ '. Negative existential statements are *prima facie* counter-examples to the claim that every truth has a truthmaker. Our ordinary ways of speaking certainly suggest that negative existential truths 'are true not because things of some kind *do* exist, but rather because counter-examples *don't* exist. They are true for lack of false-makers.'<sup>5</sup> How can the friend of truthmaking meet this challenge? Since Exclusion does not work, the most obvious next move is to postulate the existence of lacks. If negative existential truths are not to count as true without the benefit of anything that exists making them true, it had better be claimed that there really exist such items as lacks, absences, or more generally, negative states of affairs. The lesson to be learnt here is that truths that are true for lack of false-makers are made true by negative facts! If absences are to work for us as truthmakers, we have to take them ontologically seriously. Of course, absences are not *things*, nevertheless they had better not be nothings. They are certainly to be reckoned as a *kind of contents* of the world, very different from, and additional to, the kind of contents that the positive state of affairs are. Any attempted list

<sup>5</sup> Lewis [12], p.216.

of 'what there is' would have to contain both what is present and what is absent, even if that makes for a crowded world.

In the next three sections I present what strike me as good reasons why one should *not* accept the postulated existence of absences, or of other kinds of negative fact.

#### IV. The Mysteriousness of Negative Facts

Russell once wrote:

There is implanted in the human breast an almost unquenchable desire to find some way of avoiding the admission that negative facts are as ultimate as those that are positive.<sup>6</sup>

Many philosophers, driven by this desire, have been reluctant to postulate negative facts. I agree with them and give some arguments in support. I develop the first argument with reference to C.B. Martin's recent spirited defence of absences as truthmakers. Martin makes it very clear where he stands in ontology:

My aim is to make do with things, properties and relations that make up and are the constituents of situations or states of affairs, all of which would be first-order.<sup>7</sup>

I think that this is the optimal position in ontology, one that I am strongly attracted to. How do absences fit into such an ontology? Here is a list of what we are told about the nature of absences. Absences are, *negatively*, not abstract, not things (not entities), not properties, not causally operative, and not causally powerful; and, *positively*, they are states of the world, first-order, and causally relevant.

Within the categories permitted in Martin's ontology, the World itself counts as a rather large object. Similarly any localised part of the world.<sup>8</sup> Now normally we think of a *state of an object* as a case of the object's having a property, or set of properties, or arrangement of properties, for the period during which the object is in that state. But *this* sort of analysis of absences as states of an object (be it the World or some part of it) is ruled out here. One is forced to treat absences as situations or states of objects that are *not* analysable as, or supervenient on, things having properties and/or standing in relations. These absence-states find no home in the existing categories. In the kind of ontology that Martin officially adopts (which many of us think is the right ontology to adopt) situations or states of affairs are not ultimate or irreducible, and do not require a separate category. Positive states of affairs are nothing over and above their constituents, the (first-order) 'things, properties and relations'. This is one of the attractive features of this ontology. Now it is proposed to solve the problem of truthmakers for negative statements by making irreducible, *sui generis* negative states ontologically admissible, while remaining reductionist about positive states.

<sup>6</sup> Russell [16], p.287.

<sup>7</sup> Martin [15], p.60.

<sup>8</sup> In 1969 Christo wrapped part of the Australian coastline at Little Bay in a million square feet of plastic sheeting. Martin's comment was: 'It goes to show what can be considered One Thing'.

Even if one regarded positive states of affairs as irreducible to their constituent first-order things, properties, and relations, that would still not allow one to place positive and negative states of affairs into the same category, or to regard them as, say, different species of a common genus. Irreducible states of affairs still have things, properties, and relations as constituents. If there is to be a generic similarity between positive and negative states of affairs, the latter would also have to have things, properties, and relations as constituents. But the things, properties, and relations which are the supposed constituents of negative states of affairs, do not exist. Should we therefore say that negative states of affairs are complexes of non-existent elements? It seems that only Meinong had the courage to bite this bullet.<sup>9</sup> The alternative to his view is to treat negative facts as ultimate and primitive. This would be a particularly deep primitiveness, since negative states are not only a new kind of thing, they are a new kind of kind of thing. They do not fit into the category into which ordinary positive states fit.

#### V. Acausality of the Negative

Another argument against negative facts makes use of the Eleatic Stranger's suggestion that (causal) power is the mark of the real.<sup>10</sup> I want to argue that absences are radically acausal which is a reason for thinking that they are not real. The view is of course consonant with a broadly naturalistic metaphysics, but it faces a serious obstacle. Our ordinary causal idiom permits us to refer to absences, omissions, lacks, voids, and many other negatives as causes. We often speak in this way and what we say is often true. If absences have no causal powers how can we make a true claim by saying 'Lack of air caused him to suffocate'? My strategy will be to answer this objection, and I take it that once it is answered no further obstacle remains to accepting the Acausality of the Negative.

There are two, very different, types of relation that we call 'causal'. The first is a relation between particulars occurring in nature. It is an objective and mind-independent natural relation, a 'primary' relation. When this natural relation holds between events that are the behaviour of physical objects, it can be explained (although perhaps not analysed) as a physical process, for example as interaction in accordance with quantum field theory,<sup>11</sup> or as the transfer of conserved quantities.<sup>12</sup> We call a relatum in such a natural relation 'cause' (or 'a cause') in one sense of the word 'cause'. I will say that the relatum in this primary relation is *causally operative*. It is clear that negative objects, events, or states of affairs are not causally operative. A *something* can be the starting point or the terminus of a causal process, but a *nothing* cannot (notwithstanding the quantum theoretical vacuum with its ontological 'fluctuations'). It is causally operative factors that add 'biff' to the world; absences do not. When we say that an absence is a cause, we are not using 'cause' in the sense in which it signifies a biffy primary relation.

What is the connection between having dispositions and being a relatum in a causal relation? The intuitive answer is that events involving objects can stand in the causal

<sup>9</sup> Findlay [7], pp. 50-58.

<sup>10</sup> *Sophist* 247c.

<sup>11</sup> Heathcote [9].

<sup>12</sup> Dowe [5].

relation only if the objects have the relevant dispositions. We can coin a slogan: ‘No causality without exercised powers.’ This connection between powers and causes holds only for causality understood as the natural primary relation that I have described. ‘A causes B’ entails ‘The objects involved in A and B have certain powers’, but the entailment depends on ‘cause’ being used here in the sense of ‘causally operative’.

There is a second type of relation that is properly called ‘causal’ in ordinary usage. This is not an objective natural relation but a rational relation. It holds between the particulars that we cite as explanans and explanandum respectively, when we give causal explanations. ‘A causes B’ means, in this sense of ‘cause’, ‘A causally explains B’. I will say that a particular standing in this rational relation is *causally explanatory*. The relation of being causally explanatory is seriously context-dependent. Explanations start from a desire to know the answers to certain questions. The selection of the questions and the criteria of what constitutes a successful answer to them derive from two sources: our pragmatic interest in bringing about and preventing events, and the content of our background knowledge. What can be relevant to the explanation of a certain event will depend on the context of explanation created by these factors. Although we do say things like ‘Lack of air caused him to suffocate’, we do *not* say things like ‘Lack of poison caused him to remain alive’. The example (due to Tooley<sup>13</sup>) strikingly illustrates the selectiveness with which we pick out the factors that are ‘causes’ in the sense of being relevant to the explanation of an effect. This selectiveness is governed primarily by the context of explanation, and only secondarily by objective causal relations in the world. For our purposes it is important to note that among the particulars that we select for mention in an explanans, and to which we refer as a cause, we may properly include some that are causally explanatory without being causally operative.

How can something be causally explanatory without being causally operative? It has been said that causal explanation consists in giving information about the causal history of the explanandum.<sup>14</sup> This is plausible but only on an inclusive interpretation of what counts as ‘giving information about causal history’. On a narrow interpretation one would only admit as informative the citing of one or more of the factors that were operative in producing the explanandum. However in asking certain why-questions that call for causal explanations, we may be interested in something else, namely, in comparing and/or contrasting the explanandum with some other event. The contrast may be with counterfactual alternatives, or with factual alternatives. In legal and forensic contexts in particular the contrast is often with actual cases with different outcomes and similar but not strictly identical causal histories. In one situation *A*, *B*, and *C* are causes of *X*, in another *A*, *B*, and *C* are causes of *Y*. In the first situation *A*, *B*, *C*, and *D* are (jointly) the complete cause of *X*, whereas in the second situation *A*, *B*, and *C* are (jointly) the complete cause of *Y*. Depending on the context of explanation created by the why-question, a suitable way of describing the difference between the two cases could be to say ‘Lack of *D* caused *Y*’. This schema exemplifies paradigm uses for ‘cause’ as applied to absences, lacks, voids, omissions, and similar negatives. When we say that a negative object, event, or state of affairs causes an effect, we are giving a contrastive explanation of that effect. ‘Cause’ as used in contrastive explanatory contexts sometimes

<sup>13</sup> Cited in Armstrong [1], p. 25.

<sup>14</sup> Lewis [11].

just refers to the difference between two causal sequences and not to anything that is causally operative for the outcome of either sequence.<sup>15</sup>

I have been considering the claim that absences cannot be acausal since we can say that absences are causes. I answer that 'cause' is ambiguous, and that in the only ontologically relevant sense of 'cause' it means 'causally operative' and that we never say that absences are causally operative. We do say that absences are causes, in the sense of 'cause' in which it means 'causally explanatory', but in that sense of 'cause' being a cause does not entail having any powers. Things without *biff* can be part of a causal explanans. I conclude that the argument from what we ordinarily say about absences as causes does not require us to attribute to absences any causal powers, passive or active, exercised or unexercised. Absences fail the Eleatic Stranger's reality test.<sup>16</sup>

## VI. Perception of Negative Facts

Richard Taylor has provided an ingenious argument to show that negative facts can be perceived in the same manner as positive ones.<sup>17</sup> If Taylor is right and veridical non-inferential perception of absences is possible, then it would follow that absences are as real as anything else that can be so perceived.



Figure 1



Figure 2

According to Taylor when we see Figure 1, what we perceive 'directly' or 'immediately' is 'a state of affairs consisting of the dot's being in the circle'. By 'direct perception' Taylor means non-inferential perception. He is saying that although when we look at Figure 1 we see a circle and a dot, our perceptual knowledge of the fact that the dot is inside the circle is not the result of any inference. Rather we non-inferentially perceive the fact that the dot is inside the circle. I accept the point.

When we look at Figure 2, Taylor claims that the position is exactly the same. Our perceptual knowledge of the negative fact that the circle is empty of dots is not the result of an inference. It is also perceived non-inferentially. What this shows is 'that negative facts are perceivable as well as positive ones, and in identically the same way, namely, immediately'.<sup>18</sup> I do not believe that the analogy between the two cases is tight enough to justify this conclusion. Taylor supports his claim that when we look at Figure 1 we do not infer the dot's being in the circle from something else, by pointing out that there is no perceptual datum from which such an inference could be drawn except the fact of the dot's being in the circle itself. I find this persuasive. A parallel argument is not available

<sup>15</sup> There is some convergence between this account and Lipton [14], although Lipton does not specifically discuss causal explanation by negatives.

<sup>16</sup> So of course do numbers and pure sets. Some of us will take that to be a sign that it is the wrong test, while others of us will see in this a confirmation of the test's rightness.

<sup>17</sup> Taylor [18], pp 444-5.

<sup>18</sup> Taylor [18], p. 445.

in the case of the perception of negative states of affairs. In looking at Figure 2 there is something from which we can infer the circle's being empty of dots, other than that fact itself, namely, the perception of the circle and the failure to perceive the dot.

Taylor says that when we see the circle (in Figure 2) and fail to see the dot we also, in addition, directly perceive the state of affairs of the circle being empty of dots 'provided, of course, that we look for a dot'. This is an important qualification. The circle in Figure 2 is not only empty of dots, it is also empty of dashes, strokes, squares, triangles, crosses, etc. There are here indefinitely many negative states of affairs occupying the same location in visual space. Do we non-inferentially perceive all of them? If not why not, since all the perceptible facts are there, laid out, accessible, ready to be perceived? The qualification provides the answer: we are likely to perceive the circle's being empty of something that we are looking for, and less likely or unlikely to perceive the circle's being empty of something that we are not looking for. (Even Sartre, who affirms the reality of *le néant*, concedes that its appearance depends on our expectations.<sup>19</sup>) All this suggests that the perception of the circle's being empty of dots is in fact the result of an inference from our direct perception of the circle together with our failure to perceive the looked-for dot in the circle. The important difference between the perception of the negative state of affairs in Figure 2, and the case of our seeing the dot's being in the circle in Figure 1, is that the latter does *not* depend on our looking for the presence of any particular.

If Taylor's argument were sound it would show that there are epistemic reasons for believing in the existence of negative states of affairs which are as good as any epistemic reasons for believing in the existence of positive states of affairs. But the argument does not quite work in my view. The most natural interpretation of what happens when we see that the circle is empty of dots does not bear out Taylor's claim that non-inferential perception of negative states of affairs occurs.

I have argued that we should not admit negative states of affairs to ontological respectability. The reasons are, first, that no account whatever can be given of the nature of negative states of affairs. Positive states of affairs are complexes of things, properties, and relations, but negative states of affairs are not such complexes, unless they be complexes that have non-existent constituents. Negative states of affairs are at best inexplicable primitives postulated to work as truthmakers for negative truths. Second, negative states of affairs are acausal in a sense which should exclude them from any broadly naturalistic ontology. Third, I have given reasons for rejecting a purported proof that we have direct, non-inferential perceptual access to negative states of affairs.

## VII. Totality Facts

Here's another try at a theory of truthmakers for negative statements. This is the theory of the totality fact.<sup>20</sup> (From here on I refer to this theory as 'TF'.)

The fact that there is tea on the table cannot serve as the truthmaker for 'There is no wine on the table'. But now let us add a further fact, namely, the fact that tea is all there is

<sup>19</sup> 'It is evident that non-being always appears within the limits of human expectation.' Sartre [17], p. 7.

<sup>20</sup> Armstrong [2], pp. 92-97; Armstrong [3], pp. 196-201; Cf. Russell [16], pp. 236-241; Taylor [18], pp. 441-2; Findlay [7], pp. 51-2.

on the table. This is the totality fact, and TF claims, first, that the state of affairs of *tea being on the table*, and the state of affairs of *tea being all there is on the table* are two distinct states of affairs; and, second, that the truth of ‘There is no wine on the table’ supervenes on the existence of these two states of affairs.

If the totality fact is something over and above the positive states of affairs, we need some account of the nature of this fact. According to David Armstrong who has recently defended TF, the totality fact is constituted by a relational property of ‘totalling’ or ‘exhausting’ or ‘limiting’ the particular facts that belong to the totality. The idea is, roughly, that we have a relation, ‘totalling’ between the things actually on the table taken collectively on the one hand, and a certain states of affairs type: *being something on the table* on the other. This relation holds if and only if the members of the collection are all the items that instantiate the state of affairs type.

Unless we admit a hierarchy of types of states of affairs (or ‘facts’ as I shall say from now on for brevity’s sake) TF is open to quick refutation. I am looking at a formulation of the theory in which the totality fact is a fact of the same kind as the facts it ‘totals’ but numerically distinct from them. Suppose we have  $n$  number of common or garden facts. If it is a common or garden fact that the  $n$  common or garden facts are *all* the common or garden facts there are, then *this* fact cannot be a further common or garden fact that is distinct from those included in the  $n$ -membered collection of facts. Therefore on the assumption that the  $n$  common or garden facts *are* all the common or garden facts that exist, there is no totality fact. On the other hand, if the  $n$  common or garden facts are not all the common or garden facts there are, then *ipso facto* there is no totality fact, since it is not a fact (of any sort) that the  $n$  common or garden facts are the totality of such facts. Ergo, there is no totality fact. This is not an insurmountable difficulty. When Russell developed his argument for the need for general facts, he was careful to distinguish between particular facts and general facts, as different *types of fact*. That avoids the embarrassment of an argument like the one I have given. Although a type hierarchy is available to TF, it is worth pointing out that adopting it incurs costs. (The theory loses some degree of simplicity and some degree of explanatory power.) If one’s aim in metaphysics is to do without hierarchies or multiple levels of states of affairs one should dispense with totality facts.

An advantage of economy may be claimed for TF, when compared with a theory that would find individual totality facts for each particular situation about which we make true negative statements. Instead of having to postulate a lot of local totality states of affairs like *tea’s being all there is on this table*, *bears and foxes and seals being the only Arctic animals*, etc., we postulate just one comprehensive totality fact. This advantage of parsimony is a balanced by an epistemic disadvantage. The one big totality fact is certainly a fact of enormous complexity since it includes all the local totality facts. It would be pragmatically impossible for anyone to encode or express the statement of this one big totality fact. Even if the sentence purporting to describe the one big totality fact could be expressed somehow, it would be uncheckable by humans. This is a serious epistemic downside to TF but not of course a refutation of the metaphysical claim that the one big totality fact exists.

The abiding difficulty of TF is that a totality fact is not a positive fact at all. For *tea’s being all there is on the table* is the same state of affairs as *there being nothing that is both not tea and on the table*. Totality statements state the non-existence of certain entities,

they state ‘no more facts’.<sup>21</sup> The arguments I have adduced against accepting negative facts apply also, with such force as they have, to totality facts. We should reject totality facts, along with all other offers of negative states of affairs. That leaves our principal problem unsolved. Totality statements, such as ‘Tea is all there is on the table’, are negative statements, but they seem to be perfectly all right as they stand. They are paradigmatically truth-apt. But then if they are true they must have truthmakers. We still do not know what they are.

### VIII. Supervenience

Perhaps we can avoid positing totality facts or other negative facts, by saying that higher order negative states of affairs *supervene* on the first-order positive states of affairs. One can then construe truthmaking as this supervenience relation. Does this proposal deliver positive truthmakers for negative truths?

One normally thinks of supervenience as a relation that holds between some supervening properties and a subvenient base. What supervenes in this case is the semantic property *being true*, and the base on which it supervenes consists of some existing object(s) or state(s) of affairs. The family of supervenience concepts contains many different members. Which of these is appropriate for our purpose? To this point we have treated truthmaking as a necessary relation: if A makes true *p* then in any world in which A exists, *p* is true. Any supervenience relation that is going to serve as an elucidation, or analytic equivalent, of truthmaking cannot be modally weaker than truthmaking itself. This suggests that the relation we want is Kim’s ‘strong supervenience’.<sup>22</sup> The sense in which the truth of negative statements strongly supervenes on what exists is captured by the following:

**Definition 3**     If any two worlds differ in what negative statements are true in them then they must differ in what positive states of affairs obtain in them.

Definition 3 says that once the class of all positive existents is given then the totality of all true negative statements is ‘fixed’. This clearly states a *necessary condition* for truthmaking. I do not believe that it is also a *sufficient-and-necessary condition*.

Truthmaker theory is a theory of the groundedness of truth-values. Minimally, such a theory should enable one to identify whatever it is that explains why the truth-bearers have the truth-values they have. Strong supervenience allows one to do this globally, for the true negative statements taken collectively, but *not* distributively, not for each negative truth taken individually (nor for any proper subset of the set of all negative truths). Definition 3 yields only a maximally coarse grained theory. To illustrate: it follows from Definition 3 that if ‘There is no wine on the table’ is true in one world, *w*, and false in another, *w\**, then there is *some* difference in the positive contents of the two worlds. But it does *not follow* that this difference between the worlds is relevant to the difference in truth

<sup>21</sup> Armstrong [3], p.200.

<sup>22</sup> Kim [10], pp.58-9.

values, or in any way explanatory of them. It is *consistent* with Definition 3 that exactly the same positive statements about what is on the table are true in  $w^*$  as in  $w$ , and yet ‘There is no wine on the table’ is true in  $w$  but false in  $w^*$ , provided only that there is some difference in what positive particulars exist in the two worlds. This leaves no room for identifying any particular existent as the truthmaker for a particular truth. The maximally coarse grained theory of truthmaking specifies one and the same truthmaker for every truth, positive or negative, namely, the World. That is a true but trivial conception of truthmaking.

Strong supervenience may be offered as a weak replacement for truthmaking but it is not an adequate analysis of it.

### IX. Truthmaking a Contingent Relation?

It was said (Section VII) that there being tea on the table is not sufficient to make true ‘There is no wine on the table’. This is plausible, given that truthmaking is a necessary relation: what if there is both tea and wine on the table? The problem is that we have been unable to find the positive particulars to necessitate the truth of negative statements. Would it help if we relaxed the requirement of necessity for the truthmaking nexus? The idea is, roughly speaking, that the truth of ‘There is no wine on the table’ is conditionalised on whatever is, as a matter of fact, on the table (say, tea). This is irrespective of the fact that tea being on the table is consistent with wine also being on the table—how tea and wine are co-located *in another world* can be discounted as not part of what makes true negative truths about *this* world. On this proposal, to say that tea being on the table makes true ‘There is no wine on the table’ is to say that a primitive, undefined and probably undefinable, but contingent relation (called ‘truthmaking’) holds between that positive state of affairs and that negative statement.

Why would one think that truthmaking could be a contingent relation? Let’s briefly visit three objections to the claim that truthmaking is necessary.

First, the objection from *meaning shift*. Something A may be the truthmaker for statement  $s$  in the actual world, but not in some world that contains A but in which ‘ $s$ ’ does not have the meaning it has in the actual world. The objection depends on taking the truth-bearer to be a sentence or some linguistic entity whose meaning is not rigid (in Kripke’s sense). The way to meet the objection from meaning shift is to rigidify the meaning of the truth-bearer. This is achieved by defining the truthmaker relation so that ‘A is the truthmaker for  $s$ ’ entails ‘For all  $w$  and for all  $s$ , if A is the truthmaker for  $s$ , and A is in  $w$ , and  $s$  has the same meaning in  $w$  as it has in the actual world, then  $s$  is true in  $w$ .’ The redefinition is motivated by the distinction between real differences in truth-value and mere Cambridge differences in truth-value. Siegfried Sassoon’s 1918 description of

... those ashen gray

Masks of the lads who once were keen and kind and gay

would have a different truth value were it written today. This is a mere Cambridge difference in truth values, since it is independent of any intrinsic differences that exist at the world end of the truthmaking relation. There is a strong intuition that our considered

ontological judgements should not be influenced by the possibility of mere Cambridge differences in truth-values. Taking truth-bearers to have rigid meaning for purposes of truthmaker theory is a way of preserving that intuition.

Second, the objection from the impossibility of *transworld identity*. One could object (if one were Leibniz for example) that a contingent particular cannot literally be in more than one world, and that therefore the premiss of the necessity of truthmaking is vacuous. But, as John Bigelow has shown us, we can placate the enemies of transworld identity by transposing the modal elements of our argument into the language of counterpart theory and still obtain the required conclusion.<sup>23</sup>

Third, the objection from *Humean Distinctness*. It has been pointed that out that, since what we say about the world and what exists in the world are wholly distinct matters, truthmaking, conceived of as a necessary relation between the world and the word, offends against the Humean principle of ‘no necessary connections between distinct existences’.<sup>24</sup> One could use this observation (i) to reject the global demand for a truthmaker for every truth, *or* (ii) one could use it to reject the necessity of truthmaking, *or* (iii) one could run the argument backwards, against the distinctness principle itself. Lewis favours option (i), I have a preference for (iii), but it is clear in any case that we are not here *compelled* to take option (ii).

What can be said in favour of the thesis of the necessity of truthmaking? Considered by itself it is a plausible thesis that does not seem to be in need of extended defence. If the very particulars whose actual existence makes true the statement ‘There is no wine on the table’, could exist in some possible worlds and not make it true, in those worlds, that there is no wine on the table, then how could the existence of those particulars serve to *explain* the truth in the actual world of ‘There is no wine on the table’? Truthmaking is the relation that we invoke to explain why a statement is true by reference to the existence of something. Such explanations could not be given if the link between explanans and explanandum were a purely accidental relation. If a truthmaker and the truth it makes were related by something analogous to Kim’s ‘weak supervenience’, there could be two possible worlds that are identical in what they contain but in one of which *p* is true while in the other *p* is not true. This would altogether sever any connection between what exists in a world and the truths about that world, and would take us completely outside the framework of a broadly correspondence view of truth. Truthmaking is necessary or it is nothing. I conclude that the turn from strong to weak truthmaking does not help to solve the problem of the ontological grounding of negative truths.

## X. Whither?

I have discussed what makes true the negative truths against the background of a set of metaphysical assumptions. They can be summed up in four theses:

- (i) The world is everything that exists.
- (ii) Everything that exists is positive.

<sup>23</sup> Bigelow [4], pp.139-42.

<sup>24</sup> Lewis [13], pp.217-20.

- (iii) Some negative claims about the world are true.
- (iv) Every true claim about the world is made true by something that exists.

(i) to (iv) jointly imply that all negative truths must have positive truthmakers. But what are they? Where are they? These old questions are so difficult, it's no wonder people have sought to escape the burden of having to answer them. The four theses provide a simple taxonomy of the historical reactions. Those who think that there is more to Being than existence, deny (i)—e.g. Meinong, or Russell of the *Principles of Mathematics*. Friends of negative facts deny (ii)—Russell of *Logical Atomism*, Taylor, Armstrong, Martin, *et al.* The truly heroic position is the oldest: the Eleatics reject (iii), for according to Parmenides one cannot even think or say anything negative (except in the mode of appearance, of course). The most popular contemporary move, alas, is to reject all forms of the correspondence theory of truth, including the moderate version embodied in (iv)—Putnam, Rorty, P.F. Strawson, etc. etc.

An apparent fifth way out is to deny that the truthmaker has to be something that exists. This is ambiguous. After disambiguation, it resolves into *either* a quasi-Meinongian denial of the ontological principle expressed in (i) *or* a retreat from (iv). On the first reading we are saying that the world contains non-existent truthmakers such as lacks, absences, mere possibilities, etc. On the second interpretation, we are re-admitting truths without the benefit of truthmakers. This is the way of ontological frivolousness. It is a truly desperate resort but we may yet be forced to adopt it, if we are unlucky.

Any of the four moves I have indicated will relieve one of the obligation of having to discover positive truthmakers for negative truths. I find all the escape manoeuvres deeply unconvincing, just as I find each of the four theses immensely plausible. The four theses have the support of an array of powerful arguments, and, taken collectively, they form the backbone of what is perhaps the only coherent realist metaphysics of truth. I would not want to part with any of them, but I confess, with much gnashing of the teeth, that the Holy Grail of positive truthmakers for negative truths remains undiscovered. We need positive truthmakers for negative truths but we have no good theory of what these might be. That is the sad conclusion from the arguments of this paper. I have criticised proposals by other philosophers for solving the problem of negative truths, but that criticism must be tempered by the acknowledgment that where they have failed, so have I. It is an impasse and at present I cannot see the way out.<sup>25</sup>

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