

RUSSELL, NEGATIVE FACTS, AND ONTOLOGY*

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Russell's introduction of negative facts to account for the truth of "negative" sentences or beliefs rests on his collaboration with Wittgenstein in such efforts as the characterization of formal necessity, the theory of logical atomism, and the use of the Ideal Language. In examining their views we arrive at two conclusions. First, that the issue of negative facts is distinct from questions of meaning or intentionality; what a sentence or belief means or is about rather than what makes it true or false. Second, that the ontological use of the Ideal Language is incompatible with the requirements of its employment in the logical study of inferences. On this basis we conclude that despite elaborations by recent proponents, the doctrine of negative facts lacks adequate support, and perhaps more importantly, it is proper ontological method to free the Ideal Language from the exigencies of a symbolism constructed for logical investigation.

At the beginning of Russell's lectures on "The Philosophy of Logical Atomism" he says that,

The process of sound philosophizing, . . . consists mainly in passing from those obvious, vague, ambiguous things, that we feel quite sure of, to something precise, clear, definite, which by reflection and analysis we find is involved in the vague thing that we start from, and is, so to speak, the real truth of which that vague thing is a sort of a shadow (Russell 1964a, pp. 179–180).

The first thing that Russell takes to be obvious is the correspondence theory of truth; that is, the view that there are objective *facts* and that there are beliefs, sentences, statements, or propositions that make *reference to*, or are *about*, or *mean* facts, and by reference to facts are either true or false. As Russell puts it,

When we speak falsely it is an objective fact that makes what

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we say false, and it is an objective fact that makes what we say true when we speak truly (Russell 1964a, pp. 179–180).

However obvious this view is at first glance, it leads to questions and problems the solutions to which are by no means obvious. For example, how can a false belief or false sentence be made false by a fact? Certainly my false belief that the earth is flat cannot be made false by the fact that the earth is flat since there is no such fact. What then are the “objective facts” by which false beliefs are false? Further questions arise concerning the nature of the truth makers of different kinds of true sentences such as generalities, disjunctions, conjunctions, implications and negations. For example, if the sentences ‘John is happy’ and ‘Mary is happy’ are both true then does there exist a unique kind of fact, a conjunctive fact that makes true the sentence that ‘John and Mary are both happy’? And concerning true negative sentences such as ‘John is not in this room’ what objective facts if any are their truth makers?

It is not our intention to consider Russell’s stand on all of these issues, but rather to direct our attention to one, namely, the question of negative facts. Even here our discussion will be limited since we do not intend to question three presuppositions about what makes negative sentences true. First, that there is a distinction between language and the world. Second, that there is a correspondence relation between the two, and third, that the notion of an atomic fact is an intelligible notion.¹ Thus, we shall approach the issue by asking the following question: “Within the limits of these presuppositions, did Russell have adequate reasons for postulating negative facts?” We shall argue that he did not by first giving a characterization of what negative facts have or could be taken to be; then by disposing

¹The first presupposition is denied by Nammour (1973). Nammour’s paper is criticized by Oaklander (1975). The second presupposition was recently denied by Allaire (1974 and 1976). For a criticism of the third presupposition see (Butchvarov 1974, esp. pp. 4–10). For two defenses of the ontological category of fact see (Bergmann 1967, pp. 3–21, esp. pp. 8–11) and (Hochberg 1979, pp. 271–308, and pp. 336–46). It might be argued that there is yet another important presupposition in Russell’s discussion of negative facts, namely, that sentences can be divided into affirmative and negative ones in a manner that has ontological significance. Frege once pointed out the difficulty of dividing sentences in ordinary language into affirmative and negative based on the presence or absence of negation (1966, p. 125). Thus one might question whether there may be any difference between the ontological explanation given to negative and affirmative sentences in ordinary language. Yet the claim that there is a definite class of sentences which are to be classified as ‘negative sentences’ applies only to sentences in an *ideal language* since the negative sentences in question are supposed to be negations of *atomic* sentences. Within the context of an IL it is, however, quite true that Russell claims that sentences can be divided in such a way that one ontological explanation will fit the affirmative sentences and another will fit the negative ones.

of one of the main arguments Russell has advanced in favor of negative facts; and finally by defending an alternative to the theory of negative facts. Our account bases the truth of a negative sentence merely on the absence of the fact asserted by the atomic sentence that is negated. Various arguments against this theory have been developed by Russell and others, but we shall argue that they are unsuccessful.

Since our arguments against Russell and others depend upon our understanding of the philosophy of logical atomism, before turning to the issue of negative facts, we shall explain our interpretation of logical atomism. Our interpretation will be based on Russell's *Lectures* (1960, 1964a) and Wittgenstein's *Tractatus*. Although there are differences between Russell and Wittgenstein there are also several common themes and it is on those that we shall concentrate.

I

One central theme of logical atomism is the thesis that there exists an ideal or "logically perfect language" (IL). Initially, the IL is a purely syntactical or formal schema in that it is viewed as dealing with signs and sequences of signs solely as geometrical patterns or marks on paper. So considered, the formation rules that characterize certain sequences of signs as well-formed and the rules of inference that allow us to go from one string of signs to another are purely syntactical rules. Of course the IL is not merely a formal schema and we can begin to understand what else it is by distinguishing two different functions that it performs, and by examining the relationship between them. It must be noted at the outset, however, that the atomists neither clearly distinguished the two functions, nor adequately appreciated the importance of the distinction. Consequently, they failed to realize that the two functions are incompatible and cannot be performed by the same "language." All this will be clarified and defended as our discussion unfolds.

First, the IL, in what might be called its "logical" function, is a symbolic device for perspicuously representing (transcribing) the logic of sentences contained in a natural language. The IL represents the logic of language by containing symbols for the different kinds of sentences, and by enabling us to see at a glance what kind of sentence a given string is, e.g., conditional, conjunctive or disjunctive, positive or negative, and so on. As Russell says, "[I]n a perfect logical language, it would always be obvious at once whether a proposition was positive or negative" (1964a, p. 215). Furthermore, the IL represents the logic of language by uncovering the logical laws and relationships that govern the sentences in a natural language.

More specifically, in ordinary language arguments are given that involve the entailment of one sentence by another, and in its logical function the IL represents the correct logical form that all sentences and all entailments in a natural language can take. Finally, perhaps the most crucial way in which sentences in the IL represent sentences in a natural language is that they are capable of being true or false.

Connected with the fact that sentences in the IL are true or false is another aspect of the logical function of an IL namely, that the language as a whole is truth-functional. That is, all the significant complex arrangements of atomic sentences have the truth value that they do in virtue of the truth value of the atomic sentences that comprise them plus the meaning of the logical constants contained within them (Russell 1964a, p. 210, and Wittgenstein 1963, p. 73, 5, and p. 87, 5.3, 5.32). It is true that Russell realized that sentences that expressed belief contexts were not truth-functional, but by and large he accepted the thesis of truth-functionality.

A good passage that expresses Russell's understanding of the logical function is the following:

Logic, we may say, consists of two parts. The first part investigates what propositions are and what forms they may have; this part enumerates the different kinds of atomic propositions, of molecular propositions, of general propositions, and so on. The second part consists of certain supremely general propositions of certain forms. The second part merges into pure mathematics, whose propositions all turn out, on analysis, to be such general formal truths (Russell 1960, p. 52).

An example of the logical function of the IL is Russell's theory of definite descriptions, although it is true that Russell does not clearly speak of it as a logical doctrine, but imports it with ontological significance (p. 440 below and Grossman 1975). Wittgenstein also expresses the need for the logical function of an IL in the following passages:

Every day language is a part of the human organism and is no less complicated than it.

It is not humanly possible to gather immediately from it what the logic of language is (Wittgenstein 1963, p. 35, 4.002).

Indeed he goes on to say that,

Most of the propositions and questions of philosophers arise from our failure to understand the logic of our language (Wittgenstein 1963, p. 37, 4.003. Also, cf. p. 29, 3.323, 3.324, 3.325, and p. 77, 5.13).

The IL serves a second function, call it the “ontological” function, that is at least as fundamental as the first: the IL provides us with the correct view of the nature of reality. It represents the kinds of entities that there are as well as the facts that exist. It is, in other words, an ontological representation or depiction of the world. When viewed as representing reality, it may be said that the IL does not contain both true and false sentences, but only true sentences. In short, in its ontological function, the IL does not represent what *could be* the case, but only represents what *is* the case (Allaire 1978). One might also conceive of the IL in its ontological function as containing expressions that are neither true nor false, but ontological explanations for (some) true sentences in OL, or “stand-ins” for the facts represented by them. It does this by “picturing,” or “mirroring,” or “sharing a common ontological form” with the reality it represents. As Russell says,

I shall try to persuade you that in logically correct symbolism there will always be a certain fundamental identity of structure between a fact and the symbol for it; and that the complexity of the symbol corresponds very closely to the complexity of the facts symbolized by it. . . . I shall therefore assume that there is an objective complexity in the world, and that it is mirrored by the complexity of propositions (Russell 1964a, p. 197).

Thus, for Russell, the syntax of the IL, upon interpretation or coordination with entities in reality functions ontologically; as representing what exists.

There are several remarks that Wittgenstein makes that reveals that he too is committed to the IL as having ontological significance, or alternatively, as representing reality. Like Russell, Wittgenstein thinks of the IL as containing propositions that “picture” reality (Wittgenstein 1963, p. 37, 4.01). In virtue of the pictorial (representational) relationship there is a sense in which the IL and the reality it depicts are one. Wittgenstein is fairly explicit about the relationship between language and the world in the following passage.

A gramophone record, the musical idea, the written notes, and sound-waves, all stand to one another in the same internal relation of depicting that holds between language and the world.

They are all constructed according to a common logical pattern. (Like the two youths in a fairy-tale, their two horses, and their lilies. They are all in a certain sense one.) (Wittgenstein 1963, p. 39, 4.01).

Consequently, the true propositions of the IL may be said to show

us the correct ontology, or be “stand ins” for reality itself. As Wittgenstein says, ‘The totality of true thoughts [propositions] is a picture of the world’ (1963, p. 19, 3.01). By ‘the world’ Wittgenstein means the totality of *existing* states of affairs (1963, p. 13, 2.04, also 2.05).

The two functions of the IL and the alleged connection between them can be better understood by seeing how, for Russell and Wittgenstein (although not for us), the ontology of reality can be exhibited by the logic of language. The logic of language shows that atomic sentences are independent; that one atomic sentence cannot be logically deduced from another. This feature about the logic of language represents an ontological fact about reality, namely, that the atomic facts represented by atomic sentences cannot be inferred from one another. Look how quickly Wittgenstein draws the inference from the logical representation to the ontological representation:

One elementary proposition cannot be deduced from another (1963, p. 77, 5.0134).

There is no possible way of making an inference from the existence of one situation to the existence of another entirely different situation (1963, p. 79, 5.135. Also, p. 13, 2.061, 2.062).

In other words, for Wittgenstein, there are no necessary connections among atomic facts, or more simply, there are no necessary facts. Wittgenstein’s claim is a central thesis of logical atomism as we interpret that doctrine. Later we shall see that it is also at the core of Russell’s argument for negative facts. At this juncture, however, what is crucial to note is that the IL is at once serving both a logical and an ontological function.

The thesis of truth-functionality gives rise to further evidence of the double role of the IL. For, although truth-functionality is essentially a doctrine about the logic of language, the atomists have taken it to have important ontological implications. For them it shows that (i) the only facts that exist are atomic facts, (ii) there are no molecular (necessary) facts or what amounts to the same thing, there are no non-truth-functional connectives and (iii) *logical* constants are symbols that belong to language, but do not represent anything in reality (cf. Russell 1964a, pp. 197, 209–10, and Wittgenstein 1963, p. 43, 4.0312, p. 89, 5.4). This last point fits well with the atomist thesis that all logical (necessary) truths are representations of language and not representations of objective facts (cf. Wittgenstein 1963, p. 67, 4.46, and p. 69, 4.461, 4.4611, and 4.462, p. 121, 6.1, 6.11, 6.113 and pp. 18–19 below).

Like Wittgenstein, Russell also treats the two functions of the IL

more or less interchangeably. For example, his analysis of definite descriptions in which he attempts to uncover the correct logical form of sentences such as “The golden mountain does not exist” has important consequences for ontology. According to Russell, definite descriptions are incomplete symbols about which he says:

It is important, if you want to understand the analysis of the world, or the analysis of facts, or if you want to have any idea what there really is in the world, to realize how much of what there is in phraseology is of the nature of incomplete symbols (Russell 1964a, p. 253).

The ontological lesson to be gleaned from the correct transcription of the incomplete symbol “The golden mountain does not exist” is that we need not be ontologically committed to the *being* or *subsistence* of the golden mountain.

Russell’s discussion of relations also indicates that he sometimes drew ontological conclusions from logical considerations. Russell maintained that sentences stating that two things have a certain relation have a different logical form from subject-predicate sentences and “the failure to perceive this difference or allow for it has been a source of many errors in traditional metaphysics” (Russell 1960, p. 42. Also, Russell 1964a, p. 207). By misrepresenting the logical form of relational statements we are led into the metaphysical error of treating relations as monadic qualities of individuals. On the other hand if we perspicuously represent the correct logical form of relational statements then we will at the same time be representing the correct ontological form of relations in reality.

Of course the major question is whether or not a single IL with a single syntax can represent both the logical form of a natural language and the ontological form of reality. Our discussion of Russell on negative facts will attempt to show that a single IL cannot perform both functions, but before we turn to that discussion let us summarize the various features of logical atomism. (1) The IL is a language that both represents the logic of language and represents the ontology of the world. (2) In virtue of performing these two functions the IL shows that (a) there are atomic, but no molecular facts since molecular sentences are truth functions of atomic ones, and (b) that there are no necessary connections between atomic facts, since there are no logical connections between atomic sentences.

II

We can best understand the various analyses of negative facts by first attempting to understand the nature of a positive atomic fact.

Consider the sentence 'This is red'. Let 'this' be a proper name whose meaning is a certain colored spot that we will represent by 'a'. The meaning of 'red' will be the familiar quality that we will represent by ' f_1 ', and the meaning of 'is' will be the formal relation or tie of exemplification that is represented by the juxtaposition of ' f_1 ' and 'a'. We can now represent a positive atomic fact as $f_1(a)$, a's exemplifying the quality f_1 . Then we can formulate three alternative views of the nature of negative facts. First, there is the analysis that a negative fact has one constituent more than a positive fact, i.e., in addition to an individual, a property, and exemplification, there is also a negative element denoted by the word 'not' (Bergmann 1964a, p. 79, Bergmann 1960b, p. 137). Second, there is that analysis which maintains that the difference between a positive and a negative fact is in the negative fact having a constituent of a new and different kind from its counterpart in a positive fact. More specifically, one may hold that a negative fact consists of an individual, the tie of exemplification, and a negative quality (McTaggart 1921, pp. 16–30). On the third alternative, a negative fact would consist of an individual, a property and the tie of negative exemplification (Hochberg 1969). Before turning to one of Russell's main arguments for negative facts, let us briefly consider Wittgenstein's argument against them.

In the *Tractatus* Wittgenstein denied the existence of negative facts. It seems that he did not want to interpret negation as denoting any entity that existed in reality, but rather he wanted to interpret negation in the same way as he interpreted the other truth-functional connectives; as operations on sentences with no ontological significance. Brownstein (1973) has argued that Wittgenstein's reasons for rejecting negative facts suggest that he conceived of them along the lines of the negative element view. For Wittgenstein believed that (i) in some sense the only true sentences to which there correspond facts are atomic sentences, and that (ii) there are no facts but atomic facts. Consequently, if he conceived of negative facts as containing a negative element, then given his view that each simple element in reality would have a syntactically simple sign for it in the language, it would follow that the symbolism for a negative sentence would reflect both that negative sentences are truth-functionally non-atomic and that the facts to which they correspond would be non-atomic (molecular). Given (ii) however, the later consequence is unacceptable. Thus, Brownstein suggests that rather than give up his theory of truth, Wittgenstein rejected negative facts.

Interpreting Wittgenstein to have adopted the negative element view of negative facts can also explain other arguments that he gives against them. Consider the following passage:

Truth functions are not material functions. For example, an affirmative can be produced by double negation: in such a case does it follow that in some sense negation is contained in affirmation? Does ' $\sim \sim p$ ' negate $\sim p$ or does it affirm p — or both? The proposition ' $\sim \sim p$ ' is not about negation, as if negation is already written into affirmation. And if there were an object called ' \sim ', it would follow that ' $\sim \sim p$ ' said something different from what ' p ' said, just because the one proposition would then be about \sim and the other not (Wittgenstein 1963, p. 89, 5.44).

If a negative fact was a fact that had a peculiar negative element denoted by ' \sim ' then ' $\sim \sim p$ ' and ' p ' would be about different facts because the one contains signs for negation and the other does not. Since Wittgenstein found a consequence unpalatable, he rejected negative facts.

Wittgenstein's reliance on the negative element view points to a weakness in his claim that there are no negative facts, namely that his arguments only apply to one analysis of what negative facts are taken to be. Brownstein claims (1973, p. 48) that Russell may have adopted the "negative exemplification" view and by so doing could have consistently regarded facts as atomic. Thus, although Wittgenstein may have shown that there are no negative facts according to one analysis, he has not shown that there is no viable conception of negative facts. With this background we are ready to turn to one of Russell's main arguments for negative facts.

Historically, Russell's argument for negative facts was developed against a proposal by Demos. Demos proposed to avoid negative facts by rewriting negative sentences as positive ones. That is, Demos suggested that we define or interpret negative sentences as follows:

'not- p ' means 'There is a proposition q which is true and is incompatible with p ' (Russell 1964a, p. 213. Also, Demos 1917, pp. 193–194).

Russell's objection to Demos' proposal is famous, but it is still worth quoting. He says:

. . . there is this objection, that it makes incompatibility fundamental and an objective fact, which is not so very much simpler than allowing negative facts. You have got to have here 'That p is incompatible with q ' in order to reduce 'not' to incompatibility, because this has got to be the corresponding fact (Russell 1964a, p. 213).

Of course, this does not constitute an argument for negative facts. It merely shows that in addition to positive atomic facts a "new

kind" of fact must be recognized; but negative facts are a "new kind" of fact too. Thus, for Russell's choice of negative facts to prove defensible his argument must be supplemented, and he does so by saying that:

We have been trying to avoid *both* negative facts *and* molecular facts, and all that this [Demos' proposal] succeeds in doing is to *substitute molecular facts for negative facts*, and I do not consider that this is very successful as a means of avoiding paradox . . . (Russell 1964a, p. 214; emphasis added).

The molecular fact expressed by '*p* is incompatible with *q*' is of a particularly unpleasant variety because it "contains" a *non-truth functional connective*. In other words, since the truth of '*p* is incompatible with *q*' cannot be explained in terms of atomic facts, a new kind of connective and consequently a new kind of fact, call it a "necessary fact," must be introduced to perform the task. Such facts would be unacceptable to the logical atomist for they would violate the principles that (i) logical words do not denote entities in the world and that (ii) there are no necessary connections between facts. Furthermore, it would make necessity a matter of fact (ontological significance) and not merely a matter of logic. Thus, if Demos' proposal concerning what accounts for the truth of negative sentences involves the existence of necessary facts whereas Russell's proposal of negative facts does not, then there is some reason to prefer negative facts to incompatible facts. It appears, however, that negative facts also require the introduction of necessary facts. If true, this constitutes a serious blow to Russell's argument for negative facts.

Suppose then, as Russell maintains, there are negative facts, i.e., in addition to positive facts like *a's being red*, there are also negative facts like *a's not being red*. The two facts corresponding to an atomic sentence and its negative form a positive-negative pair. These facts do not both exist, nor do they fail to exist simultaneously. Rather, at any one time one and only one of the two facts exists and that is not merely a contingent matter, but a matter of "necessity." But in what sense is it necessary that in a positive-negative pair of facts at any one time one of the facts exists? It certainly *appears* to be *logically necessary* since it appears to be contradictory to say that neither of the two facts obtains: ' $\sim [f_1(a) \vee \sim f_1(a)]$ ' or to say that both do: ' $f_1(a) \& \sim f_1(a)$ '. If this is so, then the existence of negative facts does not commit one to the further existence of "necessary facts." For if logical necessity is understood purely syntactically, as a matter of the form of the language, then the existence of a logical truth is seen to be a feature of the symbolism and not

a feature of reality. However, if the necessity involved is not linguistic or formal but factual, then Russell's preference for negative facts over Demos' proposal loses its force. Thus, the crucial issue can be stated: "If there are both positive and negative facts, can the necessary truth that 'one and the same spot is not both red and not red' be transcribed into a symbolic language as a logical truth?" If it cannot, then the existence of negative facts implies the existence of necessary facts and that is fatal not only to Russell's argument for negative facts, but to Russell's entire conception of logical atomism.

Recall the second analysis of negative facts according to which the introduction of negative facts as a new kind of complex leads to the introduction of a new kind of *simple* negative property. The difference between the positive-negative pair: *a is red* and *a is not red*, is that each fact contains a *different simple property*. Consequently, in a logically perfect symbolism where "there will be one word and no more for every simple object" (Russell 1964a, p. 197), *totally different signs* must be used to represent, say, the positive property *red* and the negative *not red*. But then it is no longer logically contradictory for an individual to exemplify both a positive and a negative property nor is it contradictory for it to exemplify neither. That is, it will no longer be a purely formal (non-ontological) matter that at any one time one member of the positive-negative pair exists. For if we perspicuously represent the negative and the positive facts we would get say ' $f_1(a) \& f_2(a)$ ', where ' f_1 ' and ' f_2 ' denote different simple properties, one negative and the other positive, and that is not a contradiction. Hence, on the second interpretation of negative facts we have not avoided a commitment to necessary facts.

The third analysis of negative facts with negative exemplification presents an analogous situation. Positive and negative exemplification are completely *different simple* "relations" and so there is no contradiction involved in there being an individual at once joined by a positive tie into a positive fact and also joined by a negative tie into a negative fact. Brownstein suggests that in a perspicuous language we might transcribe a negative sentence by rearranging the signs used to assert its corresponding positive one. He says that:

. . . if "*b is white*" is transcribed as "*Wb*," then "it is not the case that *b is white*" . . . might be transcribed as "*Bw*" (Brownstein 1973, pp. 48-49).

Brownstein's transcription clearly brings out the point that it is not logically contradictory for both or neither of a positive-negative pair of facts to exist at the same time. Again, all that is left to make these things impossible are the factual necessities between positive

and negative exemplification and the other constituents of the facts involved.

The argument also holds if we adopt the first analysis of negative facts and distinguish negative and positive facts that saying that the former contains a negative entity and the latter does not. Suppose that we perspicuously represent the additional element by ' N '. Then the representation of the fact corresponding to 'this is not red' or ' $\sim f_1(a)$ ' would be $Nf_1(a)$, and the representation of the fact corresponding to 'this is red' or ' $f_1(a)$ ' would be $f_1(a)$. Once again however, the conjunction of ' $f_1(a) \& Nf_1(a)$ ' is no longer a contradiction. For it is not contradictory for an individual and a property that already form *one* fact to combine with an additional (negative) entity to form *another* fact. All that is needed is that there be two facts rather than one. Similarly, it is not a contradiction for an individual and a property to fail to combine with the (negative) entity and also to fail to combine without it. As with the previous analyses, therefore, these analyses too cannot avoid an appeal to necessary facts.

There are two ways in which one might attempt to defend Russell against the argument we have levied against him. First, a defender might argue that it is possible to avoid commitment to necessary facts by reformulating the laws of logic so that say, ' $f_1(a) \& Nf_1(a)$ ', is a contradiction. Second, a defender may argue that all our argument shows is that Russell need not treat all necessary (logical) truths according to a linguistic or formalist theory. Unfortunately, neither of these defenses work. Consider the first. Perhaps it is true that when viewed syntactically ' $f_1(a) \& Nf_1(a)$ ' can be turned into a formal contradiction. But when it is, it is no more than a symbolic representation of a certain English sentence, namely, ' a 's being red and a 's not being red'. Consequently, the symbolism would no longer be a perspicuous ontological representation of reality since ' $Nf_1(a)$ ' could no longer be taken as standing for, or mirroring a negative fact. Rather, the symbols in the propositions would be coordinated with symbols in English and in so doing we could no more perspicuously represent the existence and nature of negative facts than we do when we say ' a is red and a is not red'. Hence, insofar as ' $f_1(a) \& Nf_1(a)$ ' is a contradiction, ' $f_1(a)$ ' and ' $Nf_1(a)$ ' are not "stand-ins" for, or "mirrors" of facts in the ontological sense but are true or false propositions transcribed into a logical symbolism. If, to suppose the impossible, ' $f_1(a) \& Nf_1(a)$ ' was both a contradictory proposition, and a mirror of a positive and a negative fact, then it would follow that reality contained contradictory facts and tautological facts as well. Clearly, this is a consequence that Russell could not accept. To put the point still differently, if the necessary truth that one and

only one member of the positive-negative pair exists at any one time is a truth about language with no ontological significance, then the IL cannot also represent an ontology of positive and negative facts.

One might argue that Russell's commitment to negative facts is *prima facie* evidence that he did not think of logical truth in the standard formal sense. In other words, one might claim that the necessary truth that '*a* is red or *a* is not red' is a logical truth, but further claim that its truth is not merely a feature of its form, but that its truth has ontological significance. Indeed, this may very well be the true view (Butchvarov 1970), but we do not think that Russell could accept it. Since Russell's argument against Demos rests on the denial of basic molecular facts, or what amounts to the same thing, necessary facts, if Russell would admit that the necessary truth about the positive-negative pair is not a logical truth in the standard formal sense, then he is committed to precisely the kind of necessary fact that he found to involve paradox. For it would follow that a "logical truth" corresponded to relations among facts and this, in turn, would mean that there are facts which take other facts as their constituents. The doctrine of logical atomism, however, asserts the "independence" of facts from each other. Consequently, to suppose that logical truths are not understood according to the formalist theory cannot be accepted if Russell's objection to Demos and some central theses of logical atomism are to stand.

Nevertheless, it may be argued that it is a textual mistake to think that Russell thought of necessary truths as being formal truths since he quite explicitly says that necessary [e.g., logical, mathematical, and geometrical] truths deal with relations among universals (Russell 1956, p. 103). But Russell is not famous for his consistency, and his treatment of general truths is a case in point. He also talks about how ridiculous it is to suppose that there are entities that correspond to numbers (Russell 1964a, pp. 269–70), and he adopts a formalist theory of logical truth in (Russell 1960, pp. 51–52. Also Wittgenstein 1963, p. 121, 6.113).

Underlying Russell's eventual commitment to necessary facts is a serious question the answer to which suggests a weakness in the philosophy of logical atomism in particular, and ideal language philosophy in general. At one point in his lectures Russell tells us that "The business of metaphysics is to describe the world, and it is in my opinion a real definite question whether in a complete description of the world you would have to mention negative facts or not" (Russell 1964a, p. 215). But what is involved in giving a "description" or a "complete description" of the world? Recalling our earlier discussion we see that there are at least two things that could be meant: (1)

develop a symbolism that perspicuously “represents” or transcribes everything that can be said in a natural language or (2) develop a symbolism that perspicuously represents the different kinds of entities that there are as well as the facts that exist. In the one case the symbolism gives us the logic of ordinary language. In the second case the symbolism perspicuously represents the ontology of the world. Thus, the key question is: When we describe the world by means of a logical symbolism are we ‘representing’ sentences or are we ‘representing’ facts? In other words, in writing ‘ $\sim f_1(a)$ ’ are we representing something that is true or false and thus merely transcribing ‘this is not red,’ or are we representing a certain fact in reality. The early practitioners of the IL method believed that a logically perfect symbolism could perform both tasks at once because they believed in a fundamental identity between the structure of language and the structure of reality. The real point of our criticism is that Russell’s commitment to negative facts shows that the symbolism cannot be both the logic of a natural language and an ontological representation of the world since the structure or logical form of language and reality are not identical.

Consider for example, a paradigmatic case of a logical contradiction, ‘ a ’s being red and a ’s being not red’. For purposes of uncovering the logical laws that govern English, we develop a symbolism. The symbolism is ‘ $f_1(a) \& \sim f_1(a)$ ’, but our previous discussion has shown that *there is no way that the symbolism can also be a perspicuous representation of two different kinds of facts, one positive and the other negative*. Thus the logical structure of language is not identical with the ontological structure of reality. On the other hand, if we modify the symbolism and perspicuously represent the structure of the facts involved, then the symbolism is no longer a logical falsehood. In other words, the structure of reality is not the same as the structure of language. The point is that an IL cannot be both a language that contains *both true and false* sentences as the logical function requires, and a language that contains *only true* sentences as the ontological function properly understood requires. Thus, if to give a “complete description” of the world involves a symbolism that “represents” a natural language and the world, then it cannot be done. By not realizing this, Russell’s commitment to negative facts lands him in the same camp of necessary facts that his rejection of Demos’ proposal sought to avoid. The confusion of these two functions that logical symbolism may serve is at the root of some of the objections to the theory that we shall defend. As an introduction to that theory let us consider another reason that Russell gives for the existence of negative facts.

III

According to Russell, negative facts are necessary in order to give an adequate account of falsehood. He says that:

When, e.g., you have a false positive proposition, say 'Socrates is alive', it is false because of a fact in the real world. A thing cannot be false except because of a fact, so that you find it extremely difficult to say what exactly happens when you make a positive assertion that is false, unless you are going to admit negative facts (Russell 1964a, p. 214).

Russell's version of the correspondence theory of truth is radical, not only must true sentences correspond to facts, but false sentences must also correspond to facts. In other words, for Russell, correspondence is a descriptive relation since it is a relation that requires that its relata exist. Consequently, true and false sentences correspond to existent (not subsistent, possible, etc.) states of affairs. He is able to maintain this radical correspondence theory and avoid a commitment to false facts by countenancing negative facts, and *two* kinds of correspondence relations. True negative sentences *correspond truly* and false positive sentences *correspond falsely* to negative facts, whereas true positive sentences correspond truly and false negative sentences correspond falsely to positive facts. For example, 'Ford is not president' and 'Ford is president' both correspond (the first falsely and the second truly) to the negative fact of *Ford's not being president*. On the other hand, 'Carter's not being president' and 'Carter's being president' both correspond (the first falsely and the second truly) to the positive fact of *Carter's being president*. Thus, there would be no need to introduce false facts to correspond to false sentences.

Russell's version of the correspondence theory is only one formulation of the commonsensical view that truth is correspondence. There are at least two other formulations that are worthy of consideration and both of them are stated, although not clearly distinguished, in an article by R. Grossmann (1969). In one formulation of the view he claims that,

the correspondence theory says that an affirmative judgment is true if and only if the state of affairs affirmed actually obtains It is clear that the correspondence theory leads immediately to the problem of non-existent objects. In case the judgment under consideration is true, there is no problem: it *corresponds to (intends)* a fact, that is, an existent. But if the judgment is false, then there is no fact that corresponds to it. What, then, are false

judgments about? (Grossmann 1969, p. 22; emphasis added).

According to the above formulation, in cases of true judgment there *does exist* a correspondence (intentional) "relation" between a judgment and a fact, and in cases of false judgment there *does exist* a correspondence (intentional) "relation" between a judgment and a non-existent fact, that is, a fact that has no ontological status, or alternatively, is not an entity. (Note that Grossman, not we, treat *both* "relations" of intentionality and correspondence as the same.) In a second formulation of the view he says that,

The gist of the [correspondence] theory is simply that true assertions, statements, judgments, or what have you, *are* in some sense *related* to facts, while false assertions . . . *fail to be so related* to facts (1969, p. 22; emphasis added).

Here Grossman can plausibly be interpreted as saying that in cases of false judgment there *does not exist* a correspondence (intentional) relation between a judgment and a fact, and that in cases of true judgment there *does exist* such a relation. It will be worthwhile to discuss both new formulations of the correspondence theory so that we may better understand Grossmann's view and how our view differs from his and Russell's.

We may immediately approach the central issue involved by noting that Grossmann identifies correspondence with intentionality. Thus he is led to claim that the correspondence theory is intimately connected with, if not identical to, the problem of non-existent objects. For Grossmann, the problem of non-existent objects can be formulated as either, "What, then, are false judgments about?" or as "How can we think about what is not the case?" The latter formulation he states quite nicely as follows:

We see things that are not there and we believe things that are not so. How can such mental acts intend anything? There is nothing for them to be related to or connected with. On the other hand, the mind is not just blank, if I may put it so, when one has an hallucination or clings to a mistaken belief. Even non-veridical mental acts seem to intend something; and we can tell what they intend (1969, p. 20).

In response to the problem of non-existent objects Grossmann claims that there is a 'relation' between thought and the world that is a very special "atypical relation" (1969, p. 32). It is atypical because unlike ordinary relations it can "connect an existent with something that is not there at all" (Grossmann 1969, p. 32). Grossmann states his view in the following passage:

Mental acts, I agree with Meinong and Bergmann, are “relational.” However, *the intentional relation seems to me to be rather peculiar in that it can relate existents with non-existents*. If someone thinks that *S*, and *S* is not the case, then he thinks of a state of affairs which does not exist. Correspondingly, *by means of false sentences we represent states of affairs which do not exist*. A world in which *S* exists is clearly different from one in which it does not exist (1969, p. 31; emphasis added. Also, Grossmann 1965, 1974, p. 68, 1975, pp. 136–37, and 1976, p. 88).

Grossmann’s answer to the problem of non-existent objects construes the intentional relation as being a “relational” entity (existent) regardless of whether or not both its relata exist. Furthermore, since Grossmann identifies the intentional relation with the correspondence relation it follows that correspondence is also a “relational” entity (existent) regardless of whether or not both its relata exist. Thus, even if a positive sentence is false, it nevertheless is a relatum of an existent correspondence (intentional) relation that has no other relata.

By identifying correspondence and intentionality Grossmann arrives at a view that is similar to Russell’s in that for both there exists a correspondence relation whether a sentence is true or false. His view is different from Russell’s because he claims that correspondence *can* “relate” to what does not exist. Grossmann’s view can be likened to one possible interpretation of Moore’s (1966) view of intentionality (Hochberg 1979, pp. 53–86, esp. p. 55). Recently, Hochberg has said about Moore and by implication about Grossmann that,

. . . [a] way of taking what Moore says is to hold that the intentional relation is unique in that it does not require relata. Thus an act can intend a non-existent fact, but that does not mean that one gives any ontological status to the nonexistent fact. Rather, it is a unique feature of intentionality that we point to when we speak of nonexistent facts . . . To avoid possible facts by citing the uniqueness of a relation that is sometimes not a relation is to avoid ontological commitment by a feat of verbal gymnastics, rather than by a succinct philosophical analysis (Hochberg 1979, p. 55).

There is a way of avoiding the ‘verbal gymnastics’ of Grossmann’s peculiar correspondence or intentional relation and still retain the insight that in cases of false judgment the fact asserted has no ontological status whatsoever. To see how this is done let us turn to the formulation of the correspondence view that we wish to defend.

According to the theory as we understand it, correspondence is a relation whose terms must both exist in order for it to exist. Thus, if a positive sentence is true then there is a correspondence relation between it and a fact, and if it is false, then since there is no fact for the false sentence to correspond to, there does not exist a correspondence relation between it and anything. Thus our view is similar to Russell's (but differs from Grossmann's) since we claim that correspondence requires existent terms. Our view differs from Russell's (but is similar to Grossmann's) since we hold that what a false sentence asserts does not exist. Furthermore, we differ from Russell in *denying* that the correspondence theory requires negative facts. For we maintain that true negative sentences and false positive sentences do not correspond to negative facts. In other words, there is no ontological difference between a true negative sentence and a false positive sentence: in neither case does the correspondence relation obtain, and in neither case does the "object" that the sentences are "about" exist.²

One may object that our view does not preserve a distinction between truth and falsehood since there are true (positive) and false (negative) sentences that correspond to existents. Our reply is that since any true or false negative sentence is logically equivalent to some true or false positive sentence, negative sentences can (in the context of truth or falsehood but not in the context of meaning or intentionality), be rendered in terms of the truth or falsity of positive sentences. This reply leads to another objection that once again takes us to the central issue.

A critic may object that our account does not help in solving the problem of non-existent objects and so is incomplete at the very least. More specifically, the following questions may be asked: "How can our view of correspondence explain how it is that we certainly seem to be singling out before our minds *something* different when we think that a state of affairs exists and when we think that it does not exist?" "How can the distinction exist if there is no difference between true negative and false positive sentences?" Finally, "How can false sentences that do not have a (correspondence) relation to anything nevertheless (intend) be related to something?" That we must provide an answer to these questions is based on an assumption that we do not share, namely, that the correspondence relation is identical with the intentionality (meaning) relation. Once these two

²By talking about the "object" that the sentences are "about" we are not supposing that there is, after all, an entity (existent) for false sentences to correspond to. For an illuminating account of "non-existent objects" based upon a carefully explained distinction between objects and entities, see Butchvarov (1979).

“relations” are distinguished then the questions that go along with intentionality, although they are very important questions, are not questions that we must consider in giving an account of truth as correspondence, or in exploring whether or not there are negative facts.

Interestingly, the attempt to answer these questions by saying that ‘A true belief intends a fact. A false belief on the other hand, intends what merely *appears to be* a fact, but which is neither a fact nor anything else’ (Grossmann 1976, p. 88) comes no closer to explaining what is meant by ‘non-existent object’ or the problem of intentionality than our theory does. For the whole issue concerns how we can single out before the mind what appears to be an existent when it is not an existent. The introduction of an atypical relation that can relate existents with non-existents does not explain this phenomenon, it merely calls attention to it. Furthermore, the introduction of negative facts cannot explain the phenomenon either. For if negative facts do exist, then they cannot be what false thoughts are about since false thoughts are about what *does not exist*. In other words, when we think about what does not exist we cannot be thinking about what does exist as is the case if negative facts are introduced to help us understand how *something* can appear to exist although *it is nothing*. Finally, what is crucial to note is that in whatever way we may decide the issue of intentionality and meaning, there will be some sentences that *do* correspond to something and others that *do not* correspond to anything and since, on our view, true negative sentences fall into the latter category, there are no negative facts.

Russell argues that our alternative does not really avoid the existence of negative facts. His argument is important enough to quote at length:

There might be an attempt to substitute for a negative fact the mere absence of a fact. If *A* loves *B*, it may be said that is a good substantial fact; while if *A* does not love *B*, that merely expresses the absence of a fact composed of *A* and loving and *B*, and by no means involves the actual existence of a negative fact. But the absence of a negative fact. But *the absence of a fact is itself a negative fact*; it is the fact that there is no such a fact as *A* loving *B* (Russell 1964, p. 288; emphasis added).

Russell is saying that if a fact is absent or does not exist, then there must exist a non-existent or negative fact that a given positive fact does not exist. However, the inference does not hold. For example, ‘This is red does not exist’ could be rendered as ‘It is false that this is red,’ and this way of stating the absence of a fact does not require us to postulate any non-existent or negative fact as being

the ground of absence of a fact. That is, the absence of a fact can be treated as a feature of the "language" without ontological significance, since it implies nothing more than that a certain positive sentence does not correspond to anything.

It may be argued that since 'It is false that . . .' means 'It is *not* the case that . . .', we have not eliminated 'not' from the language, and consequently we have not really avoided negative facts. The argument is, however, a *non-sequitur*. For the question of whether or not negation, in its various linguistic disguises, can be eliminated from a natural language is *not* the same as the question of whether or not there are negative entities. Clearly, in any adequate language you would want some means of expressing negation, whether you had negation as an operator or not. For to eliminate all means of expressing negation would involve removing contradictions from the language and that is absurd. But just because negation must be expressible in a logically adequate language it does not follow that we cannot eliminate negation from a "language" constructed to represent perspicuously what exists.

Russell believes that the absence of a fact implies the existence of some negative fact because he confuses the two ways in which "language" can describe the world. The sentences 'this is not red' and 'it is false that this is red' can be symbolized by ' $\sim f_1(a)$ ' but that does not commit us to a negative entity unless we shift from the symbols as marks on paper to their being representations of ontological categories in the world. That there are negative signs in a symbolic transcription of a natural language does not necessitate that negative facts must be included in an ontological description of the world. Thus, we cannot by looking at the symbolism alone determine that there are negative facts.³ The argument for negative facts has to be made on dialectical grounds, but dialectically negative facts are neither necessary to account for the distinction between truth and falsehood, nor sufficient to solve the problem of non-existent objects.

Recently, Hochberg has attempted to vindicate Russell's claim that the absence of a positive fact entails the existence of a negative fact. He begins by considering a world in which there are only two things: a white square and a black square. A list of positive sentences that represent the world would be:

Wa, Bb, Sa, Sb

³Nor can the symbolism alone determine that there are bare particulars (Hochberg 1979, pp. 87-134, esp. p. 127), or that bare particulars provide a "deeper ground" of individuation than (spatial) positional qualities (Oaklander 1977).

By looking at the list, and given the truth table for '&' we know that '*Wa & Bb*' is true. Thus according, to Hochberg, there are no conjunctive facts. The disanalogy with negation indicates the existence of negative facts. Hochberg argues as follows:

' $\sim Wb$ ' is true. Yet we cannot consider any sentence on the list, and hence any facts such sentences refer to, to be the basis for it. One may point out that '*Wb*' is absent from the list, and hence ' $\sim Wb$ ' introduces a new notion, for in the case of conjunction and disjunction we didn't need to appeal to absence from the list or speak of non-existent facts. In a way we have a reflection of the simple point that ' $p, q \vdash p \& q$ ' and ' $p \vdash p \vee q$ ' are valid argument forms but that no corresponding simple form exists for negation. . . . But the point here is that in the cases of conjunction and disjunction the argument forms reflect the fact that if we have certain atomic facts we have, as true, certain compound sentences. By contrast, in the case of negation we have nothing on the list that grounds ' $\sim Wb$ ' . . . and that reveals a difference about negation (Hochberg 1969, p. 326).

Hochberg is arguing that the absence theory requires negative facts because we cannot infer ' $\sim Wb$ ' from any sentence on the list. We accept the premise, but from it the only conclusion that follows is that:

. . . the fact which makes '*Bb*' true would not be the same fact which makes ' $\sim Wb$ ' true in the sense that one and the same fact makes '*Wa*' true and ' $\sim Wa$ ' false (Hochberg 1979, p. 329).

It is true that '*Bb*' and ' $\sim Wb$ ' are not made true by the same fact, but it does not follow that they are made true by different facts; one positive and the other negative. It could be the case that the positive sentence corresponds to a fact whereas the negative sentence does not correspond to anything. In that case, however, we need not include ' $\sim Wb$ ' on the list of what exists. Thus, Hochberg's argument in support of the inference from the non-existence of a positive fact to the existence of a negative fact is fallacious.

To sum up, if one clearly distinguishes the logical from the ontological function of an IL, and if one recognizes that the problem of accounting for the truth of negative sentences is really the problem of falsehood—not understood as the problem of intentionality (non-existent objects), but as the problem of providing a basis for the difference between true and false positive sentences—then we may avoid negative facts. To put our conclusion more modestly, within the limits of the

presuppositions stated above (p. 435) Russell did not have adequate reasons for postulating negative facts.

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