ABSTRACT. A coherent theory of relations was a critical part of Russell's metaphysics. In Appearance and Reality Bradley posed a problem that sits squarely in the way of any doctrine of "external" relations. Russell, determined to advance such a doctrine, tried several times to find a way around the paradox and apparently believed he had succeeded by making use of one of his inventions, the theory of logical types.

Gilbert Ryle and Alan Donagan have advanced an argument that I read, over the objections of its authors, as a special case of Bradley's. In this paper I argue that the ad hoc solution suggested by Donagan to the special problem is one that Russell had already indicated a willingness to accept but that the general problem of the paradox remains.

What finally prevents Russell from solving the paradox is a combination of his refusal to abandon the claim that relations are constituents of facts and the necessity of distinguishing a relational fact from its converse. Following some hints that Russell left, I do some reconstruction, showing how the theory of types would (and should) have been applied had Russell followed through on his own insights. The result, I suggest, is a truly Russellian theory that escapes Bradley's paradox.

Bertrand Russell first set forth a relatively complete theory of relations in the Principles of Mathematics in 1903. He returned on many occasions to tinker with it, trying always to make the notion of external relations safe against the objections of F.H. Bradley, his chief adversary during the early years of the century. Despite his considerable insight and his regular remodeling efforts, Russell never got the theory quite right. In what follows I will chronicle his efforts, and along the way, I will consider an objection described by Alan Donagan in "Universals and Metaphysical Realism." As it turns out, Russell anticipated Donagan in providing a solution to the ad hoc problem the latter posed, but he never managed a convincing case against Bradley. I will then show how
some tinkering of my own allows an escape from Bradley's trap while it remains faithful to the spirit of Russell's views.

Of all the arguments advanced by Russell's philosophical opponents, Russell took none more seriously than the one from which Bradley's paradox ensues. For those who have not recently waded through Appearance and Reality, I will quickly summarize the argument. It occurs as part of a series of arguments designed to show that external relations are impossible. If a relation $R$ relates terms $a$ and $b$, Bradley maintains, then there must be a second relation relating $a$ to $R$ (ignoring $b$ for the moment), which we may call "$I'$" (for inherence). But then the terms of $I$, namely $a$ and $R$, must be related to $I$, and this calls for another relation, $I''$. But each relation introduced merely compounds the problem, and it becomes clear that an infinite number of relations must be called in to relate $a$ to $R$. Since it is an infinite number of relations that must be established, however, $a$ cannot be related to $R$, and hence $R$ cannot relate $a$ to $b$. Q.E., Bradley asserts, E.D.

Russell, who wished to defend relations as irreducible constituents of the world, found it necessary to defend them from this argument on several different occasions and in several different ways. His first defense, in the Principles of Mathematics, allows that the regress Bradley points out is indeed generated and is indeed infinite. But the theory of relations is saved by the alleged fact that the regress is innocuous and not vicious. A later, and, in the long run, more important, response to the paradox argument is that found in "The Philosophy of Logical Atomism" and, in somewhat different form, in An Outline of Philosophy. In this later view, Russell seems to have developed a greater appreciation for the viciousness of the regress and is determined to keep it from getting started. The principal instrument in this task is the theory of types. By making relations a different kind of thing from their terms—that is, things of a different logical type—he hoped to show that they did not require hooking onto their terms and hence that no additional hooks, in the form of new relations, need be introduced between a relation and its terms. Cast in terms of his earlier view in the Principles, the result of the application of the theory of types to the theory of relations amounts to an abandonment of "relations per se," those strange, substantive-like entities to which gerunds seem to refer, and the installation of "relating relations," which actually relate things, as the only legitimate variety of relation. The type difference between real substantives (i.e., particulars) and relations is reflected in Russell's view of what it means to understand what a relation word means.

Take, e.g., "before" in "$x$ is before $y$": you understand "before" when you understand what that would mean if $x$ and $y$ were given. . . . You will always have to put in hypothetical terms if not real ones, such as (in) "If I say that $x$ is before $y$, I assert a relation between $x$ and $y". It is in this way that you will have to expand such a statement as "Before is a relation" in order to get its meaning (L&K, 205f).

With respect to Bradley's paradox, the important fact for Russell is this: A relation is not just another "thing" in a relational fact. Unlike the terms of the relation, it performs the relating rather than requiring relating itself. This is its function in the fact, due to the kind of entity it is. Russell writes as follows:
If we mean (by the doctrine of external relations)—as the opponents of external relations suppose us to mean—that the relation is a third term which comes between the other two terms and is somehow hooked onto them, that is obviously absurd, for in that case the relation has ceased to be a relation, and all that is truly relational is the hooking of the relation to the terms. The conception of the relation as a third term between the other two sins against the doctrine of types, and must be avoided with the utmost care (L&E, 335).

However persuasive this may sound, it is not much of an argument on behalf of Russell’s theory against Bradley. It amounts to a denial of Bradley’s charge that a relation must be related to its terms by a further relation. The doctrine of types does not prove that a relation and its terms need not be related; in fact it hardly offers any evidence to that effect. What it shows is that a relation is a different sort of thing from its terms—it is not merely "a third term coming between the other two terms"—but this is not enough to prove that a relation cannot be related to a term of a different logical type from itself, or even that it does not need to be so related in certain facts. Socrates and wisdom are certainly entities of different logical types, but the fact of Socrates’ wisdom has them standing in the relation of exemplification—Socrates exemplifies wisdom. This same point can be made from an extensional point of view. The relation of set membership, particularly when it holds between an object which is not a set and a set, clearly relates two entities of different types. Furthermore, the intensional relation of exemplification and the extensional relation of membership seem to be among the most fundamental relations; others may be reducible to them, but they are generally held to be irreducible (except, for certain purposes, for being reducible to each other). Russell certainly believed this, at least at the time of "On the Relations of Universals and Particulars." There he writes: "Predication is a relation involving a fundamental logical difference between its two terms." A few sentences later, he says, "(T)he questions whether predication is an ultimate simple relation may be taken as distinguishing the two theories (that there are particulars and that there are not); it is ultimate if there are particulars, but not otherwise" (L&E, 123).

The example given above concerning Socrates and wisdom involved a property and not a relation, but this should not be relevant. For it is the difference in type which gives Russell his reason for saying that a relation requires no "hooking on" to a term, and the difference in type is certainly present in the example. What then is Russell’s reason for believing that the type distinction solves the problem of Bradley’s paradox? It seems that, in his enthusiasm at discovering that relations were not substantives, he pressed the type distinction too far and assumed that, because relations were not like substantives in some way, they were not like them in any way—in particular, they did not enter into other relations as terms. In fact, however, the only restriction which the theory of types puts on relations is that they may not be terms of some relations (e.g., the "less than" relation cannot be a term of the "taller than" relation), and they can only occupy certain positions in other relations. For example, in the fact stated by "a is a term of R," the relation of, say, loving can only occupy the position of a's position.
So, it turns out that the theory of types does not furnish the neat solution of the paradox for which Russell had hoped. It is possible to make good use of the notion of type distinction in another way, however, and I shall do so a bit later.

An argument very similar to Bradley's has been advanced by Ryle.6 This argument, which is taken up in Donagan's paper, deals with a regress intimately related to the one pointed out by Bradley. The form of the argument is that of a reductio: it is designed to show that the assumption that there is a relation of exemplification leads to a vicious infinite regress. Assume that there is such a relation, the argument goes; suppose further that Russell and Moore are in their respective rooms. Thus Russell and his room exemplify the relation in—i.e., the relation of exemplification relates Russell and his room to the relation in. Exemplification also relates Moore and his room to this same relation. I quote from the Donagan article:

The ultimate simple relation of exemplification is then a constituent of each of the two facts:

(i) The relation in is exemplified by Russell and his room;

(ii) The relation in is exemplified by Moore and his room.

It follows that,

(iia) The relation of exemplification is exemplified by Russell, his room, and the relation in;

and that

(iia) The relation of exemplification is exemplified by Moore, his room, and the relation in.

But the facts (ia) and (iia) are stated in sentences which contain the expression "is exemplified by." What does that expression denote? . . . (I)It must denote a second-order relation of exemplification. Manifestly, this regress is interminable and vicious. For, since second-order exemplification is exemplified by Russell, his room, and the relation in, and first-order exemplification, there must be a third-order relation of exemplification, and so on ad infinitum (225).

The conclusion that Donagan draws is that there is no relation of exemplification which relates a particular to a universal exemplified by it: "The only possible escape is to deny that the statement 'Russell is in his room' asserts any relation, whether ultimate or not, between the relation in and the particulars it is said to relate" (226).

I have quoted Donagan's rendition of this argument in some detail because of the obvious connection between it and Bradley's argument. The two have different motivations—Bradley is concerned to show that relations cannot be independent or external to their terms, while Ryle and Donagan want to show that relations are not exemplified by their terms, at least not in the sense of being related to them—but both arguments proceed similarly and arrive at the same place: There can be
no relation which relates a relation to its terms. Bradley then carries
the argument a step further, holding that such a further relation is
necessary for the original relation to relate its terms, and then con-
cludes that relational facts are therefore impossible. Donagan avoids
this last conclusion "...by conceiving the exemplification of a universal
by a particular or set of particulars as nonrelational" (225). This is
simply to say that, in the fact asserted by "a is in b," there is no fur-
ther constituent of the fact beyond a, the relation in, and b. The dif-
ference between the two facts asserted by "a is in b, and "a is not in
b" does not consist in ". . .the presence or absence of some further
constituent, the relation of exemplification. . . .There is an ultimate dif-
ference between the two facts, but it is not a difference in their con-
stituents" (227).

Now, it may seem that Donagan has provided an amendment to
Russell's theory, but this is not the case for Russell had already made
the appropriate change himself. His reasons for doing so were differ-
ent, but the result is the same. In "On Propositions," Russell wrote as
follows: "Let us suppose . . .that x has the relation R to y, and z does
not have the relation S to w. Each of these facts contains only three
constituents, a relation, and two terms" (L&K, 287). It does not seem
unreasonable to read this as implying that Russell has already made the
adjustment Donagan suggests—there is no constituent which relates R to
x and y. In particular, there is no relation of exemplification present.
Instead, this job is entrusted to what Russell called the "form" of a
fact. Concerning the facts mentioned in the above quotation, ". . .the
two facts do not have the same form . . .The difference between the
two forms is ultimate and irreducible." (287) Apparently, saying that a
fact has this or that form means simply that the relation either does or
does not relate the terms in the fact. Consequently, it is the relation
which is doing the work of distinguishing between what is asserted by
"a is in b" and "a is not in b," and no fourth constituent need be rec-
ognized by Russell.

Let us take stock of the situation as developed so far. I began
by arguing that the theory of types did not save the theory of rela-
tions from Bradley's argument because entities of different types could
be related by the relation of exemplification, a relation Russell at one
time thought to be simple and ultimate. The Ryle-Donagan argument was
then seen to imply that there could be no exemplification relation, and
Russell seems to have been ready to make this change. Is Russell now
free to reassert that the doctrine of types allows him a way around the
Bradleian regress? Having given up exemplification, he can hold that
relations are of a type which relate but do not require relating. But
the argument I gave earlier was independent of the notion of exemplifi-
cation; this notion was brought in only to show that, as long as he rec-
ognized it, Russell could not escape the argument. It still remains that
all a doctrine of types accomplishes is the determination that relations
and their terms are different kinds of entities; it does not of itself offer
any assurance that relations do not require relating to their terms.
Just as Russell can assert that relations do not require such relating, a
Bradleian can still deny the assertion. But this state of affairs is only
temporary. For we shall next see that Russell has still another problem
which produces the same result as exemplification, and the new problem
will not be so neatly disposed of.
Russell's position, despite its difficulties, seems to me to hold considerable appeal on grounds of simplicity and common sense. Limiting the constituents of a relational fact to just the terms and the relation and thus ruling out such elements as an exemplification relation has the advantage of making it unnecessary to explain such further elements. Also, there is a basis in common sense for the claim that relations simply relate terms, that they do not require relating to their terms. The common sense view may be summed up by a metaphor. Two physical objects may be physically related by means of glue. What is more, the answer to the question of what holds the glue to each of the objects is the same: the glue itself. The relation does the job of attaching the terms together in a fact, and part of this job involves capturing (or "hooking onto") the terms. But no further element accomplishes this—it is accomplished by the relation itself. Whatever modifications might be required, this feature of the theory seems to merit preservation, if not at all costs, then surely at any reasonable price.

The patching up of the theory explicitly suggested by Donagan and implicitly recognized by Russell was an ad hoc device which successfully overcomes a specific problem. Unfortunately, it cannot save the theory from another problem which prevents "the only possible escape" from the regress Donagan thought was available. If only the terms and the relation are allowed as constituents of a relational fact, then it becomes impossible on Russell's view to distinguish such a fact from its converse—to distinguish, say, Caesar's loving Cleopatra from Cleopatra's loving Caesar. This may easily be overlooked as a result of the examples one chooses: If one limits his examples to, e.g., the fact that John is the same height as James and that Russell is in his room, it may not occur to him that a fact's converse requires consideration. After all, the first of these facts is equivalent to its converse—the same is true of the second. Nevertheless, since there are many facts which involve relations that are not symmetrical, any theory which stands a chance of success must offer a means of distinguishing these facts from their converses. Russell knew this and provided such a means. In so doing, however, he reopened the theory to new difficulties.

It can be argued on Russell's behalf that all relations have what he called a "sense." When he expounds the later theory, Russell does not use this word. However, he does recognize a similar notion, one which shows that he did not change his thinking from that expressed in the *Principles of Mathematics* (q.v., 96). He calls this notion "position" (*L&K*, 286). That a relation has a sense means that it proceeds from one term to another; that a term occupies a certain position means that the relation proceeds from it to the other term or from the other term to it. Consequently, the positions of the terms provide a means of distinguishing a fact from its converse.

The notion of sense does not seem to cause any significant trouble for Russell; it is merely a feature of relations. The new notion of position, however, is not so innocent, for it clearly involves a new relation. In the fact asserted by "Caesar loves Cleopatra," Caesar occupies the position of referent and Cleopatra occupies the position of relatum. Now, these are two facts about the original fact, and they are indeed relational. This is precisely the situation that must be avoided since it allows Bradley's regress a chance to get started. The regress which ensues is infinite, since the fact that Caesar is referent of the relation
produces the fact that Caesar is referent of this further fact, and so on ad infinitum; it is vicious in that the analysis of the original fact that Caesar loves Cleopatra cannot be carried out without analyzing the remainder of the facts in the regress. Russell's defense of the current theory, as noted earlier, depends upon preventing the first step of the regress from being taken. Donagan views the situation in the same way and warns: "Since vicious infinite regresses cannot be stopped, they must not be allowed to start" (loc. cit., 226).

There is only one apparent counter to the argument that the notion of position allows the regress to start, and this is the claim that position is not really a constituent of a fact. Unfortunately, there is no way to back up this claim without admitting that no relations are constituents of facts. Since position involves a perfectly good relation (or pair of relations—they might be expressed ". . . is referent of . . ." and ". . . is relatum of . . ."), there is no good reason for barring it as a constituent which would not also apply to the relation of loving. And Russell clearly wishes to include the latter as a constituent. The result is that the mere stipulation that position adds no new constituents to a fact (and this seems to be Russell's intention—cf. "On Propositions," [L&K, 286f]) carries no weight. We must have position to enable us to distinguish a fact from its converse, and we cannot have it without bringing new constituents into the fact—constituents which lead directly into the regress.

Thus the theory is in need of further repair. Before beginning such a task, however, it will be helpful to survey the damage and look for problems that might frustrate any attempt at reconstruction. Part of Russell's difficulty stems from his insistence upon numbering relations among the ultimate constituents of facts. For, regardless of whether they are type-different from their terms, we have seen that it may still be necessary for them to be related to these terms. What is Russell's reason for including relations as constituents of facts? The principle one is that relations are among what for Russell are the "ultimate simples out of which the world is built" ("PLA," L&K, 270). But does it follow from this that they have to be constituents of facts? I want to show how this question can be answered negatively, with the result that we get a new approach to relations. This approach, while different from Russell's "official" position, can actually be thought of as an interpretation of some of his less official remarks. I hope to show that Russell himself at least indicated this way of viewing the theory, but then proceeded to ignore his own advice and fell into the kind of trouble I have described.

Russell repudiated the notion of proposition in which he had expressed belief in the Principles, but he replaced it with that of facts, remarking that these latter "belong to the objective world." Since facts are in many ways very similar to propositions, let us turn briefly to an important point Russell made about propositions in the Principles.

When we analyze a relational proposition, so the Principles theory held, we destroy its unity. This consists primarily of transforming the relating relation into a relation per se which is no longer connected to its terms. Thus while a proposition was said to assert something, due to the unity supplied by its verb (i.e., its relating relation), the list of constituents left after analysis (including what is now a relation per se) fails to make any assertion.
This difficulty is not eliminated by a repudiation of propositions as metaphysical entities; it is simply transferred to the problem of analyzing facts: A fact is indeed the sort of thing which can be asserted, but a list of the constituents of an analyzed fact is not. In the atomistic theory Russell has an even more complicated problem than he had in the earlier one, since he no longer countenances relations per se. Without these, it is impossible for him to say what is left of a relation once it has been separated out of a fact by analysis. This is what accounts for the difficulty of saying, in terms of Russell's theory, just what kind of entity a relation is.

Russell's fundamental idea in his later theory, that relations are not and cannot be the same kind of entities as terms, is a great advance over the earlier view. Unfortunately, he sometimes writes as if he had never had it, especially when he begins to list the constituents of facts. I mean to carry this idea to its logical conclusion, and at the same time I will try to make the remainder of the theory consistent with it. In particular, I want to show that, if Russell had consistently worked out the idea, he would have seen the intimate connection between relations and facts. One way of expressing my thesis is this: Relations cannot be considered apart from relational facts. Indeed, it could be put more strongly: In a sense, a relation is a fact. I hope the sense in which this should be taken will become clear in a moment.

Russell believed that relations contribute structure to relational facts, that they supply form, but he seems to have thought of this as itself a relational fact. That is, he thinks of the relation that "contributes" the structure on the one hand and the fact that "receives" the structure on the other. This is why he can go on to speak of the fact independently, claiming, for example, that the relation is a constituent of the fact. But this is a mistake. The truth of the matter is that the relation is the structure of the fact. Once this is recognized, two things happen. First, the nature of relations—the kind of entities they are—becomes less mysterious. Second, a large number of Russell's own remarks about relations become considerably clearer.

On the view I suggest, it is immediately obvious why relations seem to be such obscure entities. They are not, as Russell often pointed out, entities of the sort that terms are, and yet, unless one has a clear conception of what they are, it is easy to slide back into making term-like entities of them. This, it appears, is what causes Russell to insist upon making relations constituents of facts along with terms. Had he considered identifying relations with the structures of relational facts, as I think his theory requires, it would have been clear that a relation is a constituent of a fact in the sense that, and only in the sense that, the configuration of a table is a constituent of the table. That is, given Russell's usual notion of constituent, which is limited to term-like entities, it is not a constituent at all. This, I think, is the only substantial change Russell is required to make in order to disentangle the theory from the difficulties mentioned. Therefore, I might give some assurance that nothing crucial is lost by making this change.

I mentioned that Russell's principal motivation for including relations as constituents of relational facts was his conviction that relations were among the ultimate simples of the world. I do not think that this conviction has to be entirely abandoned. For, without relations, just as
without terms, there would be no relational facts, and they are thus ultimate in the sense of being absolutely necessary for a true account of the world. Russell comes remarkably close to saying this in My Philosophical Development: "There certainly are complex wholes which have a structure, and we cannot describe the structure without relation-words" (173). He seems here to all but say that relation-words refer to the structure of facts. But there are other senses in which relations are simple as well. They do not have parts, and they cannot be analyzed. Facts have parts—i.e., constituents—because they contain terms. Still, we have seen that they cannot be completely analyzed with any great success. Still less can the structure of a fact be analyzed, and it manifestly has no parts. Consequently, it remains significant to say of relations that they are in some sense among the ultimate simples of the world; they just are not ultimate in quite the same way that simple particulars are.

I turn next to the matter of type distinctions. It seems clear that the important type distinction for the theory of relations is not so much one between terms and relations but one between terms and facts. Another way to formulate this distinction would be to say that it holds between facts and constituents of facts, since terms are the only constituents of facts. One result of this distinction is that we must view terms in a different way from the way we view relations, for we must view the latter in the same way as facts. Let us consider what happens when we analyze a fact. First, we separate out the constituents of the fact. The crucial question is, What does this leave? The answer is that it leaves a structure, and this, we may say, is the relation, or what is left of it. When we remove Caesar and Cleopatra from the fact asserted by "Caesar loves Cleopatra," we are left with a matrix, expressed by "x loves y." But this is not a thing; it is merely a structure. Consequently, when we analyze a relation we get a set of terms and a structure, but we must constantly remember that the latter is not at all at the level of the terms; it remains at the same logical type level where it was, at the level of facts.

It is true that something gets lost in the analysis—there is nothing assertable about an analyzed fact. The list of constituents contains actual objects, but lists are not assertable. (Merely to recite a list is not to assert a list.) Neither is a structure assertable in the usual sense that an actual fact is assertable, for "x loves y" does not assert anything. Without constituents supplied there is simply nothing to assert anything about. (The only sense in which "x loves y" might be said to assert anything, if there is such a sense at all, is insofar as it says that a certain kind of fact is possible. I will return to this point in a moment.) In his earlier theory of relations, Russell closely connected the assertive character of a proposition with its unity. But unity is another feature which we can afford to lose. To be concerned about what happens to the unity of a fact during analysis is simply to worry about why it is being analyzed—one should not take apart what one wishes to keep together.

Losing assertability and unity is not damaging to the theory; we must expect such losses when we move from one type level to another. To paraphrase Russell, analysis cannot preserve the type difference between a fact and its constituents.
A more important consideration is the question of how the distinguishing of facts which are converses is to be handled. This question poses the most difficult problem the current view must face, but it can be solved. Russell's own answer led to problems precisely because he tried to make it too simple—he simply introduced a new constituent into facts. But the correct answer is in terms of a how and not a what. Consider once again the two facts that Caesar loves Cleopatra and that Cleopatra loves Caesar. What is different about these is not some further fact, e.g., that Caesar is related differently to the two facts (even less so that he is related differently to the relation of loving), but how he is related to Cleopatra. And we express this by reiterating the original two facts themselves. It is how Caesar is related to Cleopatra that distinguishes the two facts, not what constituent he is referent or relatum of. What this reduces to is just this: Facts which are converses of one another must be distinguished at the level of facts and not at the level of their constituents. This is an integral part of what it means to say that facts are type-different from their constituents, for two such facts do not differ regarding their constituents. Once analysis of the two facts has been carried out, that which distinguishes them is lost; one is left with two lists of precisely the same ingredients. This is because when a fact has been analyzed, its structure has, in a way, been eliminated. If you disassemble a child's toy, you may learn something about what its structure was, but the structure itself is gone when the disassembly is complete. On the current view, then, the relation does not survive the analysis except as an abstraction. This is a direct result of the type distinction between terms and relations, or terms and facts. Hence the distinction is best drawn between those items which are present in the unanalyzed fact and those constituents which remain after analysis. One final point needs making before turning to other aspects of Russell's theory. It is perfectly acceptable, given the foregoing, to say that what distinguishes aRb from bRa is the relation R, because this must now be taken to mean simply that the two facts are different.

The notion of sense was said to be a feature of relations. This might be construed as saying something about relations simpliciter, that is, apart from their role in relational facts. However, that relations have a sense lends support to the view that relations are the structures of relational facts. For it is now clear that what should be said is that relational facts have a sense. That this is the case is clear from the impossibility of explaining what the notion of sense is without making some reference to at least hypothetical terms. In fact, Russell was absolutely correct when he said that, ideally at least, one should always refer to a relation by means of a relational form of words—e.g., "x is before y." For this sets forth the structure of a fact; since the terms are hypothetical, it is a hypothetical fact, but that is essentially what the structure of a fact is. By substituting concrete terms for the hypothetical terms the structure (the relation) becomes an actual fact.

This leads naturally to an account of what it means for a relation to be a universal. Russell has been criticized because "[the] structure of relational facts cannot be explained if relations are . . . other-worldly universals . . ."10 This is certainly true. But as now interpreted, the theory does not make relations in the least "other-worldly." Or, I should say, they are only as other-worldly as possible states of affairs are other-worldly, the latter being not of the actual world but of a possible world. Saying that a relation is a universal can be taken to mean
that it can be expressed as a propositional function. The phrase "x precedes y" expresses such a universal—one which can be "shared" by many particulars, since many different objects can be taken as values of the variables. This seems perfectly in accord with Russell's general view of universals. One restriction must be added to this characterization of universals so as to prevent particulars from qualifying (since, in one sense, a particular can be "shared" by—it can possess—many universals). This can be done by referring to the hierarchy: Something is a universal if and only if it can be shared by many objects of a lower logical type. Again, the sharing metaphor is to be explained in terms of taking many different objects as values of a set of variables.

Another point I wish to make in favor of the current interpretation of relations concerns the way it clears up some of the obscurity surrounding the perception of relations. Russell held that relations are in some fashion objects of perception. (Recall that his ultimate appeal in behalf of the existence of relations as real features of the world was on empirical grounds.) But Russell was never too clear about exactly how we perceive relations. We certainly do not see them in the way that we see terms. Even if this wasn't obvious it has been pointed out by many commentators, including Winslade: "We see . . . two dots standing in a certain relation. Do we see the relation? If relations are perceived at all, they are not perceived simpliciter, that is, in isolation from relata ("RTR," EBR, 93). On the interpretation I suggest, we wouldn't expect anything different. For, in order to perceive a relation, we must look at a relational fact, and perceiving the relation then consists in attending to the structure of the fact. Hence, seeing a relation is always seeing that such and such, where "such and such" takes the place of an assertion. This is because relations are at the level of facts, and facts are the sorts of things that are assertable.

We can now show how, on the present interpretation, the theory of relations avoids any vicious regress and thus defeats Bradley's paradox. Russell's difficulty with the paradox arose from the manner in which he distinguished a fact from its converse—that is, from his introduction of the notion of position. I have argued that this is a mistake and the correct way to make the distinction is by reference to the facts themselves rather than to their constituents and these constituents' positions. At the level of constituents there is no way to distinguish a fact from its converse. Since the regress cannot begin without reference to the relation between certain parts of a fact, there is no possibility of the paradox arising in connection with the fact/converse distinction.

This does not mean, however, that there is no other opportunity for the paradox to arise within the theory. A general argument is required to show that there is not. Such an argument can be given, but one final development of the theory must be undertaken first.

The necessary development can be borrowed from Russell's earlier theory of relations, since it involves reviving the distinction between relating relations and per se relations or, more accurately, making a new distinction which is very similar. If we analyze the fact that Caesar loves Cleopatra, the result is the set of terms, Caesar and Cleopatra, and what I call the fact's structure. This structure is a first-level abstraction and is expressed by "x loves y." (You arrive at the form of the fact by making a further abstraction resulting in "xRy," which is
the form of all dyadic relations.) The notion of structure can play most of the role played by the relation per se in the *Principles* theory. In the early theory, when a relational fact was analyzed, the result was a set of terms and a relation per se, since the analysis converted the relating relation in the fact into a relation of the latter kind. On the new theory, the corresponding product is a structure. Structures correspond to relations per se in that they are what is left over after the terms are abstracted from a fact. The two items are different in one important respect, however: Abstract structures are not substantives in the way that per se relations were thought to be, and this is made clear by the former’s expression as propositional functions containing variables rather than as verbal nouns.

Thus far I have used the word "constituent" in the sense Russell used it—to refer to term-like entities which are found at a lower type-level than that of facts. It would be possible, of course, to broaden the use of the word so as to include higher level items like relations. In that case it would be proper to say that a relation is a constituent of a fact, but it would not be proper to say that a fact consists of its constituents in relation. The danger of including relations as constituents of facts is that it tends to make them look as though they stand in need of being related to their terms. Consequently, I have chosen to restrict the use of "constituent" to entities at the level of terms.

The paradox depends upon the necessity of relating a relation to its terms. If a relational fact can be explained without reference to such a connection, then the paradox is thereby resolved. On the view currently suggested not only is there no need to refer to a connection between a relation and its terms, such a reference would be out of order. The reasons for this conclusion are that, first, a constituent of a fact can be related only to other constituents; and, second, since a relation is a structure but not a constituent, it cannot be related to its terms. To say that a fact has a structure is not to say that it has some additional constituent—it is to say that the constituents already present are related in a certain way. The unanalyzed fact that Caesar loves Cleopatra has a structure, and the proper answer to the question, What structure does it have? is "x loves y." However, the structure indicated by this expression is an abstraction; it is not itself an element of the fact—it is an element of the analysis of the fact. Therefore, it is improper to ask how it is related to any constituent of the fact. And, without this question, there can be no paradox.

ENDNOTES


In the Outline he does allow the regress to go one step, from the metaphysical level to the linguistic, but this is not relevant to present concerns.

This was in 1911. "On the Relations of Universals and Particulars" is reprinted in L&K, 105-24.

Gilbert Ryle, "Plato's Parmenides," Mind, 48 (1939), 137-38. Both Ryle and Donagan deny that Ryle's argument is the same as Bradley's. The main difference, however, is motivational; it is easy to see the first as a special case of the second.

He wanted to show that there was no constituent which corresponds to the word "not" in "a is not in b."

Russell had more than one use for the word "form" with respect to relational facts. He used it to distinguish, for example, between dyadic, triadic, etc., relational facts.

This concise way of putting it is due to David Keyt.
