

Ontological
Relativity and
Other Essays

by W. V. Quine

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Speaking
of
Objects

I

We are prone to talk and think of objects. Physical objects are the obvious illustration when the illustrative mood is on us, but there are also all the abstract objects, or so they purport to be: the states and qualities, numbers, attributes, classes. We persist in breaking reality down somehow into a multiplicity of identifiable and discriminable objects, to be referred to by singular and general terms. We talk so inveterately of objects that to say we do so seems almost to say nothing at all; for how else is there to talk?

It is hard to say how else there is to talk, not because our objectifying pattern is an invariable trait of human nature, but because we are bound to adapt any alien pattern to our own in the very process of understanding or translating the alien sentences.

Imagine a newly discovered tribe whose language is without known affinities. The linguist has to learn the language directly by observing what the natives say under observed circumstances, encountered or contrived. He makes a first crude beginning by compiling native terms for environing objects; but

here already he is really imposing his own patterns. Let me explain what I mean. I will grant that the linguist may establish inductively, beyond reasonable doubt, that a certain heathen expression is one to which natives can be prompted to assent by the presence of a rabbit, or reasonable *facsimile*, and not otherwise. The linguist is then warranted in according the native expression the cautious translation "There's a rabbit," "There we have a rabbit," "Lo! a rabbit," "Lo! rabbithood again," insofar as the differences among these English sentences are counted irrelevant. This much translation can be objective, however exotic the tribe. It recognizes the native expression as in effect a rabbit-heralding sentence. But the linguist's bold further step, in which he imposes his own object-positing pattern without special warrant, is taken when he equates the native expression or any part of it with the *term* "rabbit."

It is easy to show that such appeal to an object category is unwarranted even though we cannot easily, in English, herald rabbits without objectification. For we can argue from indifference. Given that a native sentence says that a so-and-so is present, and given that the sentence is true when and only when a rabbit is present, it by no means follows that the so-and-so are rabbits. They might be all the various temporal segments of rabbits. They might be all the integral or undetached parts of rabbits. In order to decide among these alternatives we need to be able to ask more than whether a so-and-so is present. We need to be able to ask whether this is the same so-and-so as that, and whether one so-and-so is present or two. We need something like the apparatus of identity and quantification; hence far more than we are in a position to avail ourselves of in a language in which our high point as of even date is rabbit-announcing.

And the case is yet worse: we do not even have evidence for taking the native expression as of the form "A so-and-so is present"; it could as well be construed with an abstract singular term, as meaning that rabbithood is locally manifested. Better just "Rabbiteth," like "Raineth."

But if our linguist is going to be as cagey as all this, he will never translate more than these simple-minded announcements of observable current events. A cagey linguist is a caged linguist. What we want from the linguist as a serviceable finished product, after all, is no mere list of sentence-to-sentence equivalences, like the airline throwaways of useful Spanish phrases. We want a manual of instructions for custom-building a native sentence to roughly the purpose of any newly composed English sentence, within reason, and vice versa. The linguist has to resolve the potential infinity of native sentences into a manageably limited list of grammatical constructions and constituent linguistic forms, and then show how the business of each can be approximated in English; and vice versa. Sometimes perhaps he will translate a word or construction not directly but contextually, by systematic instructions for translating its containing sentences; but still he must make do with a limited lot of contextual definitions. Now once he has carried out this necessary job of lexicography, forwards and backwards, he has read our ontological point of view into the native language. He has decided what expressions to treat as referring to objects, and, within limits, what sorts of objects to treat them as referring to. He has had to decide, however arbitrarily, how to accommodate English idioms of identity and quantification in native translation.

The word "arbitrary" needs stressing, not because those decisions are wholly arbitrary, but because they are so much more so than one tends to suppose. For, what evidence does

the linguist have? He started with what we may call native observation sentences, such as the rabbit announcement. These he can say how to translate into English, provided we impute no relevance to the differences between "Here a rabbit," "Here rabbithood," and the like. Also he can record further native sentences and settle whether various persons are prepared to affirm or deny them, though he find no rabbit movements or other currently observable events to tie them to. Among these untranslated sentences he may get an occasional hint of logical connections, by finding say that just the persons who are prepared to affirm *A* are prepared to affirm *B* and deny *C*. Thereafter his data leave off and his creativity sets in.

What he does in his creativity is attribute special and distinctive functions to component words, or conspicuously recurrent fragments, of the recorded sentences. The only ways one can appraise these attributions are as follows. One can see whether they add up to representing the rabbit sentence and the like as conforming to their previously detected truth conditions. One can see also how well they fit the available data on other sentences: sentences for which no truth conditions are known, but only the varying readiness of natives to affirm or deny them. Beyond this we can judge the attributions only on their simplicity and naturalness—to *us*.

Certainly the linguist will try out his theory on the natives, springing new sentences authorized by his theory, to see if they turn out right. This is a permuting of the time order: one frames the theory before all possible data are in, and then lets it guide one in the eliciting of additional data likeliest to matter. This is good scientific method, but it opens up no new kind of data. English general and singular terms, identity, quantification, and the whole bag of ontological tricks may be correlated with elements of the native language in any of various

mutually incompatible ways, each compatible with all possible linguistic data, and none preferable to another save as favored by a rationalization of the *native* language that is simple and natural to *us*.

It makes no real difference that the linguist will turn bilingual and come to think as the natives do—whatever that means. For the arbitrariness of reading our objectifications into the heathen speech reflects not so much the inscrutability of the heathen mind, as that there is nothing to scrute. Even we who grew up together and learned English at the same knee, or adjacent ones, talk alike for no other reason than that society coached us alike in a pattern of verbal response to externally observable cues. We have been beaten into an outward conformity to an outward standard; and thus it is that when I correlate your sentences with mine by the simple rule of phonetic correspondence, I find that the public circumstances of your affirmations and denials agree pretty well with those of my own. If I conclude that you share my sort of conceptual scheme, I am not adding a supplementary conjecture so much as spurning unfathomable distinctions; for, what further criterion of sameness of conceptual scheme can be imagined? The case of a Frenchman, moreover, is the same except that I correlate his sentences with mine not by phonetic correspondence but according to a traditionally evolved dictionary.¹ The case of the linguist and his newly discovered heathen, finally, differs simply in that the linguist has to grope for a general sentence-to-sentence correlation that will make the public circumstances of the heathen's affirmations and denials match up tolerably with the circumstances of the linguist's own. If the linguist fails in this, or has a hard time of it, or succeeds only by dint of an

¹ See Richard von Mises, *Positivism*, Cambridge: Harvard, 1951, pp. 46 ff.

ugly and complex mass of correlations, then he is entitled to say—in the only sense in which one *can* say it—that his heathens have a very different attitude toward reality from ours; and even so he cannot coherently suggest what their attitude is. Nor, in principle, is the natural bilingual any better off.

When we compare theories, doctrines, points of view, and cultures, on the score of what sorts of objects there are said to be, we are comparing them in a respect which itself makes sense only provincially. It makes sense only as far afield as our efforts to translate our domestic idioms of identity and quantification bring encouragement in the way of simple and natural-looking correspondences. If we attend to business we are unlikely to find a very alien culture with a predilection for a very outlandish universe of discourse, just because the outlandishness of it would detract from our sense of patness of our dictionary of translation. There is a notion that our provincial ways of positing objects and conceiving nature may be best appreciated for what they are by standing off and seeing them against a cosmopolitan background of alien cultures; but the notion comes to nothing, for there is no *πρὸς ὅτι*.²

II

Yet, for all the difficulty of transcending our object-directed pattern of thought, we can examine it well enough from inside. Let us turn our attention from the heathen, who seemed to have a term for “rabbit,” to our own child at home who seems

² For a fuller development of the foregoing theme see my “Meaning and translation” in Reuben Brower’s anthology *On Translation* (Harvard, at press). For criticisms that have benefitted the above section of the present essay and ensuing portions I am grateful to Burton Dreben.

to have just acquired his first few terms in our own language: “mama,” “water,” perhaps “red.” To begin with, the case of the child resembles that of the heathen. For though we may fully satisfy ourselves that the child has learned the trick of using the utterances “mama” and “water” strictly in the appropriate presences, or as means of inducing the appropriate presences, still we have no right to construe these utterances in the child’s mouth as terms, at first, for things or substances.

We in our maturity have come to look upon the child’s mother as an integral body who, in an irregular closed orbit, revisits the child from time to time; and to look upon red in a radically different way, viz., as scattered about. Water, for us, is rather like red, but not quite; things can be red, but only stuff is water. But the mother, red, and water are for the infant all of a type: each is just a history of sporadic encounter, a scattered portion of what goes on. His first learning of the three words is uniformly a matter of learning how much of what goes on about him counts as the mother, or as red, or as water. It is not for the child to say in the first case “Hello! mama again,” in the second case “Hello! another red thing,” and in the third case “Hello! more water.” They are all on a par: Hello! more mama, more red, more water. Even this last formula, which treats all three terms on the model of our provincial adult bulk term “water,” is imperfect; for it unwarrantedly imputes an objectification of matter, even if only as stuff and not as bits.

Progressively, however, the child is seen to evolve a pattern of verbal behavior that finally comes to copy ours too closely for there to be any sense in questioning the general sameness of conceptual scheme. For perspective on our own objectifying apparatus we may consider what steps of development make the difference between the “mama”-babbling infant who can-

not be said to be using terms for objects, and the older child who can.

It is only when the child has got on to the full and proper use of *individuating* terms like "apple" that he can properly be said to have taken to using terms as terms, and speaking of objects. Words like "apple," and not words like "mama" or "water" or "red," are the terms whose ontological involvement runs deep. To learn "apple" it is not sufficient to learn how much of what goes on counts as apple; we must learn how much counts as *an* apple, and how much as another. Such terms possess built-in modes of individuation.

Individuating terms are commonly made to double as bulk terms. Thus we may say "There is some apple in the salad," not meaning "some apple or other"; just as we may say "Mary had a little lamb" in either of two senses. Now we have appreciated that the child can learn the terms "mama," "red," and "water" quite well before he ever has mastered the ins and outs of our adult conceptual scheme of mobile enduring physical objects, identical from time to time and place to place; and in principle he might do the same for "apple," as a bulk term for uncut apple stuff. But he can never fully master "apple" in its individuating use, except as he gets on with the scheme of enduring and recurrent physical objects. He may come somewhat to grips with the individuating use of "apple" before quite mastering the comprehensive physical outlook, but his usage will be marred by misidentifications of distinct apples over time, or misdiscriminations of identical ones.

He has really got on to the individuating use, one is tempted to suppose, once he responds with the plural "apples" to a heap of apples. But not so. He may at that point have learned "apples" as another bulk term, applicable to just so much apple as is taken up in apple heaps. "Apples," for him, would be subor-

ordinated to "apple" as is "warm water" to "water," and "bright red" to "red."

The child might proceed to acquire "block" and "blocks," "ball" and "balls," as bulk terms in the same fashion. By the force of analogy among such pairs he might even come to apply the plural "-s" with seeming appropriateness to new words, and to drop it with seeming appropriateness from words first learned only with it. We might well not detect, for a while, his misconception: that "-s" just turns bulk terms into more specialized bulk terms connoting clumpiness.

A plausible variant misconception is this: "apple" bulkwise might cover just the apple stuff that is spaced off in lone apples, while "apples" still figures as last suggested. Then apples and apple would be mutually exclusive rather than subordinate the one to the other. This variant misconception could likewise be projected systematically to "block" and "blocks," "ball" and "balls," and long escape exposure.

How can we ever tell, then, whether the child has really got the trick of individuation? Only by engaging him in sophisticated discourse of "that apple," "not that apple," "an apple," "same apple," "another apple," "these apples." It is only at this level that a palpable difference emerges between genuinely individuating use and the counterfeits lately imagined.

Doubtless the child gets the swing of these peculiar adjectives "same," "another," "an," "that," "not that," contextually: first he become attuned to various longer phrases or sentences that contain them, and then gradually he develops appropriate habits in relation to the component words as common parts and residues of those longer forms. His tentative acquisition of the plural "-s," lately speculated on, is itself a first primitive step of the kind. The contextual learning of these various particles goes on simultaneously, we may suppose, so that they are

gradually adjusted to one another and a coherent pattern of usage is evolved matching that of one's elders. This is a major step in acquiring the conceptual scheme that we all know so well. For it is on achieving this step, and only then, that there can be any general talk of objects as such. Only at this stage does it begin to make sense to wonder whether the apple now in one's hand is the apple noticed yesterday.

Until individuation emerges, the child can scarcely be said to have general or singular terms, there being no express talk of objects. The pre-individuative term "mama," and likewise "water" and "red" (for children who happen to learn "water" and "red" before mastering individuation), hark back to a primitive phase to which the distinction between singular and general is irrelevant. Once the child has pulled through the individuation crisis, though, he is prepared to reassess prior terms. "Mama," in particular, gets set up retroactively as the name of a broad and recurrent but withal individual object, and thus as a singular term *par excellence*. Occasions eliciting "mama" being just as discontinuous as those eliciting "water," the two terms had been on a par; but with the advent of individuation the mother becomes integrated into a cohesive spatiotemporal convexity, while water remains scattered even in space-time. The two terms thus part company.

The mastery of individuation seems scarcely to affect people's attitude toward "water." For "water," "sugar," and the like the category of bulk terms remains, a survival of the pre-individuative phase, ill fitting the dichotomy into general and singular. But the philosophical mind sees its way to pressing this archaic category into the dichotomy. The bulk term "water" after the copula can usually be smoothly reconstrued as a general term true of each portion of water, while in other positions it is usually more simply construed as a singular term

naming that spatiotemporally diffuse object which is the totality of the world's water.

III

I have urged that we could know the necessary and sufficient stimulatory conditions of every possible act of utterance, in a foreign language, and still not know how to determine what objects the speakers of that language believe in. Now if objective reference is so inaccessible to observation, who is to say on empirical grounds that belief in objects of one or another description is right or wrong? How can there ever be empirical evidence against existential statements?

The answer is something like this. Grant that a knowledge of the appropriate stimulatory conditions of a sentence does not settle how to construe the sentence in terms of existence of objects. Still, it does tend to settle what is to count as empirical evidence for or against the truth of the sentence. If we then go on to assign the sentence some import in point of existence of objects, by arbitrary projection in the case of the heathen language or as a matter of course in the case of our own, thereupon what has already been counting as empirical evidence for or against the truth of the sentence comes to count as empirical evidence for or against the existence of the objects.

The opportunity for error in existential statements increases with one's mastery of the verbal apparatus of objective reference. In one's earliest phase of word learning, terms like "mama" and "water" were learned which may be viewed retrospectively as names each of an observed spatiotemporal object. Each such term was learned by a process of reinforcement and extinction, whereby the spatiotemporal range of application of

the term was gradually perfected. The object named is assuredly an observed one, in the sense that the reinforced stimuli proceeded pretty directly from it. Granted, this talk of name and object belongs to a later phase of language learning, even as does the talk of stimulation.

The second phase, marked by the advent of individuating terms, is where a proper notion of object emerges. Here we get general terms, each true of each of many objects. But the objects still are observable spatiotemporal objects. For these individuating terms, e.g. "apple," are learned still by the old method of reinforcement and extinction; they differ from their predecessors only in the added feature of internal individuation.

Demonstrative singular terms like "this apple" usher in a third phase, characterized by the fact that a singular term seriously used can now, through error, fail to name: the thing pointed to can turn out to be the mere façade of an apple, or maybe a tomato. But even at this stage anything that we do succeed in naming is still an observable spatiotemporal object.

A fourth phase comes with the joining of one general term to another in attributive position. Now for the first time we can get general terms which are not true of anything; thus "blue apple," "square ball." But when there are things at all of which the thus formed general terms are true, they are still nothing new; they are just some among the same old observables whereof the component terms are true.

It is a fifth phase that brings a new mode of understanding, giving access to new sorts of objects. When we form compounds by applying relative terms to singular terms, we get such compounds as "smaller than that speck." Whereas the non-existence of observable blue apples is tantamount to the non-existence of blue apples, the non-existence of observable

objects smaller than that speck is not taken as tantamount to the non-existence of objects smaller than that speck. The notable feature of this fifth phase is not that it enables us to form meaningful singular terms devoid of reference, for that was already achieved on occasion with "this apple"; nor that it enables us to form meaningful general terms true of nothing, for that was already achieved with "blue apple"; but that it enables us, for the first time, to form terms whose references can be admitted to be forever unobservable without yet being repudiated, like blue apples, as non-existent.

Such applying of relative terms to singular terms is the simplest method of forming terms that purport to name unobservables, but there are also more flexible devices to much the same effect: the relative clause and description.

And there comes yet a sixth phase, when we break through to posit more drastically new still than the objects smaller than the smallest visible speck. For the objects smaller than the speck differ from observable objects only in a matter of degree, whereas the sixth phase ushers in abstract entities. This phase is marked by the advent of abstract singular terms like "redness," "roundness," "mankind," purported names of qualities, attributes, classes. Let us speculate on the mechanism of this new move.

One wedge is the bulk term. Such terms can be learned at the very first phase, we saw, on a par with "mama." We saw them diverge from "mama" at the second phase, simply on the score that the woman comes then to be appreciated as an integrated spatiotemporal thing while the world's water or red stuff ordinarily does not. For the child, thus, who is not on to the sophisticated idea of the scattered single object, the bulk term already has an air of generality about it, comparable to the individuating "apple"; and still it is much like the singular

"mama" in form and function, having even been learned or learnable at the first phase on a par with "mama." So the bulk term already has rather the hybrid air of the abstract singular term. "Water" might, from the very advent of individuation, even be said to name a shared *attribute* of the sundry puddles and glassfuls rather than a scattered portion of the world *composed* of those puddles and glassfuls; for the child of course adopts neither position.

Moreover, there is a tricky point about color words that especially encourages the transition to abstract reference. "Red" can be learned as a bulk term, like "water," but in particular it applies to apples whose insides are white. Before mastering the conceptual scheme of individuation and enduring physical object, the child sees the uncut red apple, like tomato juice, simply as so much red exposure in the passing show, and, having no sense of physical identity, he sees the subsequently exposed white interior of the apple as irrelevant. When eventually he does master the conceptual scheme of individuation and enduring physical object, then, he has to come to terms with a preacquired use of "red" that has suddenly gone double: there is red stuff (tomato juice) and there are red things (apples) that are mostly white stuff. "Red" both remains a bulk term of the ancient vintage of "water" and "mama," and becomes a concrete general term like "round" or "apple." Since the child will still not clearly conceive of "red" as suddenly two words, we have him somehow infusing singularity into the concrete general; and such is the recipe, however unappetizing, for the abstract singular. The analogy then spreads to other general terms, that were in no such special predicament as "red," until they all deliver abstract singulars.

Another force for abstract terms, or for the positing of abstract objects, lies in abbreviated cross-reference. E.g., after an

elaborate remark regarding President Eisenhower, someone says: "The same holds for Churchill." Or, by way of supporting some botanical identification, one says: "Both plants have the following attribute in common"—and proceeds with a double-purpose description. In such cases a laborious repetition is conveniently circumvented. Now the cross-reference in such cases is just to a form of words. But we have a stubborn tendency to reify the unrepeated matter by positing an attribute, instead of just talking of words.

There is indeed an archaic precedent for confusing sign and object; the earliest conditioning of the infant's babbling is ambiguous on the point. For suppose a baby rewarded for happening to babble something like "mama" or "water" just as the mother or water is looming. The stimuli which are thus reinforced are bound to be two: there is not only the looming of the object, there is equally the word itself, heard by the child from his own lips. Confusion of sign and object is original sin, coeval with the word.

We have seen how the child might slip into the community's ontology of attributes by easy stages, from bulk terms onward. We have also seen how talk of attributes will continue to be encouraged, in the child and the community, by a certain convenience of cross-reference coupled with a confusion of sign and object. We have in these reflections some materials for speculation regarding the early beginnings of an ontology of attributes in the childhood of the race. There is room, as well, for alternative or supplementary conjectures; e.g., that the attributes are vestiges of the minor deities of some creed outworn.³ In a general way such speculation is epistemologically relevant, as suggesting how organisms maturing and evolving

³ Thus Ernst Cassirer, *Language and Myth* (New York: Harper, 1946), pp. 95 ff.

in the physical environment we know might conceivably end up discoursing of abstract objects as we do. But the disreputability of origins is of itself no argument against preserving and prizing the abstract ontology. This conceptual scheme may well be, however accidental, a happy accident; just as the theory of electrons would be none the worse for having first occurred to its originator in the course of some absurd dream. At any rate the ontology of abstract objects is part of the ship which, in Neurath's figure, we are rebuilding at sea.⁴ We may revise the scheme, but only in favor of some clearer or simpler and no less adequate overall account of what goes on in the world.

IV

By finding out roughly which non-verbal stimulations tend to prompt assent to a given existential statement, we settle, to some degree, what is to count as empirical evidence for or against the existence of the objects in question. This I urged at the beginning of III. Statements, however, existential and otherwise, vary in the directness with which they are conditioned to non-verbal stimulation. Commonly a stimulation will trigger our verdict on a statement only because the statement is a strand in the verbal network of some elaborate theory, other strands of which are more directly conditioned to that stimulation. Most of our statements respond thus to reverberations across the fabric of intralinguistic associations, even when also directly conditioned to extralinguistic stimuli to some degree. Highly theoretical statements are statements whose connection with extralinguistic stimulation consists pretty exclusively in the reverberations across the fabric. Statements of the

⁴ Otto Neurath, "Protokollsätze," *Erkenntnis* 3 (1932), 206.

existence of various sorts of subvisible particles tend to be theoretical, in this sense; and, even more so, statements of the existence of certain abstract objects. Commonly such statements are scarcely to be judged otherwise than by coherence, or by considerations of overall simplicity of a theory whose ultimate contacts with experience are remote as can be from the statements in question. Yet, remarkably enough, there are abstract existence statements that do succumb to such considerations. We have had the wit to posit an ontology massive enough to crumble of its own weight.

For there are the paradoxes of classes. These paradoxes are usually stated for classes because classes are a relatively simple kind of abstract object to talk about, and also because classes, being more innocent on the face of them than attributes, are more fun to discredit. In any event, as is both well known and obvious, the paradoxes of classes go through *pari passu* for attributes, and again for relations.

The moral to draw from the paradoxes is not necessarily nominalism, but certainly that we must tighten our ontological belts a few holes. The law of attributes that was implicit in our language habits or that fitted in with them most easily was that *every* statement that mentions a thing attributes an attribute to it; and this cultural heritage, however venerable, must go. Some judicious *ad hoc* excisions are required at least.

Systematic considerations can press not only for repudiating certain objects, and so declaring certain *terms* irreferential; they can also press for declaring certain *occurrences* of terms irreferential, while other occurrences continue to refer. This point is essentially Frege's,⁵ and an example is provided by the

⁵ See Frege, "On sense and reference," translated in *Philosophical Writings of Gottlob Frege* (Geach and Black, eds.), Oxford: Blackwell, 1952, and in *Readings in Philosophical Analysis* (Feigl and Sellars, eds.), New York: Appleton, 1949. See also my *From a Logical Point of View*, Cambridge: Harvard, 1953, Essay 8.