I

Words, Works, Worlds

1. Questions

Countless worlds made from nothing by use of symbols—so might a satirist summarize some major themes in the work of Ernst Cassirer. These themes—the multiplicity of worlds, the spectuousness of 'the given', the creative power of the understanding, the variety and formative function of symbols—are also integral to my own thinking. Sometimes, though, I forget how eloquently they have been set forth by Cassirer, partly perhaps because his emphasis on myth, his concern with the comparative study of cultures, and his talk of the human spirit have been mistakenly associated with current trends toward mystical obscurantism, anti-intellectual intuitionism, or anti-scientific humanism. Actually these attitudes are as alien to Cassirer as to my own skeptical, analytic, constructionist orientation.

My aim in what follows is less to defend certain theses that Cassirer and I share than to take a hard look at some crucial questions they raise. In just what sense are there many worlds? What distinguishes genuine from spurious worlds? What are worlds made of? How are they made? What role do symbols play in the making? And how is worldmaking related to knowing? These questions must be faced even if full and final answers are far off.

1 E.g., in Language and Myth, translated by Susanne Langer (Harper, 1945).
2. Versions and Visions

As intimated by William James's equivocal title *A Pluralistic Universe*, the issue between monism and pluralism tends to evaporate under analysis. If there is but one world, it embraces a multiplicity of contrasting aspects; if there are many worlds, the collection of them all is one. The one world may be taken as many, or the many worlds taken as one; whether one or many depends on the way of taking.¹

Why, then, does Cassirer stress the multiplicity of worlds? In what important and often neglected sense are there many worlds? Let it be clear that the question here is not of the possible worlds that many of my contemporaries, especially those near Disneyland, are busy making and manipulating. We are not speaking in terms of *multiple possible alternatives* to a *single actual world* but of *multiple actual worlds*. How to interpret such terms as "real", "unreal", "fictive", and "possible" is a subsequent question.

Consider, to begin with, the statements "The sun always moves" and "The sun never moves" which, though equally true, are at odds with each other. Shall we say, then, that they describe different worlds, and indeed that there are as many different worlds as there are such mutually exclusive truths? Rather, we are inclined to regard the two strings of words not as complete statements with truth-values of their own but as elliptical for some such statements as "Under frame of reference A, the sun always moves" and "Under frame of reference B, the sun never moves"—statements that may both be true of the same world.

Frames of reference, though, seem to belong less to what is described than to systems of description: and each of the two statements relates what is described to such a system. If I ask about the world, you can offer to tell me how it is under one or more frames of reference; but if I insist that you tell me how it is apart from all frames, what can you say? We are confined to ways of describing whatever is described. Our universe, so to speak, consists of these ways rather than of a world or of worlds.

The alternative descriptions of motion, all of them in much the same terms and routinely transformable into one another, provide only a minor and rather pallid example of diversity in accounts of the world. Much more striking is the vast variety of versions and visions in the several sciences, in the works of different painters and writers, and in our perceptions as informed by these, by circumstances, and by our own insights, interests, and past experiences. Even with all illusory or wrong or dubious versions dropped, the rest exhibit new dimensions of disparity. Here we have no neat set of frames of reference, no ready rules for transforming physics, biology, and psychology into one another, and no way at all of transforming any of these into Van Gogh's vision, or Van Gogh's into Canaletto's. Such of these versions as are depictions rather than descriptions have no truth-value in the literal sense, and cannot be combined by conjunction. The difference between juxtaposing and conjoining two statements has no evident analogue for two pictures or for a picture and a statement. The dramatically contrasting versions of the world can of course be relativized: each is right under a given system—for a given science, a given artist, or a given perceivers and situation. Here again we turn from describing or depicting 'the world' to talking of descriptions and depictions, but now without even the consolation of intertranslatability among or any evident organization of the several systems in question.

Yet doesn't a right version differ from a wrong one just in applying to the world, so that rightness itself depends upon and

¹ But see further VII:1 below.
implies a world? We might better say that 'the world' depends upon rightness. We cannot test a version by comparing it with a world undescribed, undepicted, unperceived, but only by other means that I shall discuss later. While we may speak of determining what versions are right as 'learning about the world', 'the world' supposedly being that which all right versions describe, all we learn about the world is contained in right versions of it; and while the underlying world, bereft of these, need not be denied to those who love it, it is perhaps on the whole a world well lost. For some purposes, we may want to define a relation that will sort versions into clusters that each cluster constitutes a world, and the members of the cluster are versions of that world; but for many purposes, right world-descriptions and world-depictions and world-perceptions, the ways-the-world-is, or just versions, can be treated as our worlds.¹

Since the fact that there are many different world-versions is hardly debatable, and the question how many if any worlds-in-themselves there are is virtually empty, in what non-trivial sense are there, as Cassirer and like-minded pluralists insist, many worlds? Just this, I think: that many different world-versions are of independent interest and importance, without any requirement or presumption of reducibility to a single base. The pluralist, far from being anti-scientific, accepts the sciences at full value. His typical adversary is the monolithic materialist or physicalist who maintains that one system, physics, is preeminent and all-inclusive, such that every other version must eventually be reduced to it or rejected as false or meaningless. If all right versions could somehow be reduced to one and only one, that one might with some semblance of plausibility¹ be regarded as the only truth about the only world. But the evidence for such reducibility is negligible, and even the claim is nebulous since physics itself is fragmentary and unstable and the kind and consequences of reduction envisaged are vague. (How do you go about reducing Constable's or James Joyce's world-view to physics?) I am the last person likely to underrate construction and reduction.² A reduction from one system to another can make a genuine contribution to understanding the interrelationships among world-versions; but reduction in any reasonably strict sense is rare, almost always partial, and seldom if ever unique. To demand full and sole reducibility to physics or any other one version is to forego nearly all other versions. The pluralists' acceptance of versions other than physics implies no relaxation of rigor but a recognition that standards different from yet no less exacting than those applied in science are appropriate for appraising what is conveyed in perceptual or pictorial or literary versions.

So long as contrasting right versions not all reducible to one are countenanced, unity is to be sought not in an ambivalent or neutral something beneath these versions but in an overall organization embracing them. Cassirer undertakes the search through a cross-cultural study of the development of myth, religion, language, art, and science. My approach is rather through an analytic study of types and functions of symbols and symbol systems. In neither case should a unique result be anticipated; universes of worlds as well as worlds themselves may be built in many ways.


² But not much, for no one type of reducibility serves all purposes.

³ Cf. "The Revision of Philosophy" (1956), PP, pp. 5–23, and also SA.
3. How Firm a Foundation?

The non-Kantian theme of multiplicity of worlds is closely akin to the Kantian theme of the vacuity of the notion of pure content. The one denies us a unique world, the other the common stuff of which worlds are made. Together these themes defy our intuitive demand for something solid underneath, and threaten to leave us uncontrolled, spinning out our own inconsistent fantasies.

The overwhelming case against perception without conception, the pure given, absolute immediacy, the innocent eye, substance as substratum, has been so fully and frequently set forth—by Berkeley, Kant, Cassirer, Gombrich, Bruner, and many others—as to need no restatement here. Talk of unstructured content or an unconceptualized given or a substratum without properties is self-defeating: for the talk imposes structure, conceptualizes, ascribes properties. Although conception without perception is merely empty, perception without conception is blind (totally inoperative). Predicates, pictures, other labels, schemata, survive want of application, but content vanishes without form. We can have words without a world but no world without words or other symbols.

The many stuffs—matter, energy, waves, phenomena—that worlds are made of are made along with the worlds. But made from what? Not from nothing, after all, but from other worlds. Worldmaking as we know it always starts from worlds already on hand: the making is a remaking. Anthropology and developmental psychology may study social and individual histories of such world-building, but the search for a universal or necessary beginning is best left to theology. My interest here is rather with the processes involved in building a world out of others.

With false hope of a firm foundation gone, with the world displaced by worlds that are but versions, with substance dissolved into function, and with the given acknowledged as taken, we face the questions how worlds are made, tested, and known.

4. Ways of Worldmaking

Without presuming to instruct the gods or other worldmakers, or attempting any comprehensive or systematic survey, I want to illustrate and comment on some of the processes that go into worldmaking. Actually, I am concerned more with certain relationships among worlds than with how or whether particular worlds are made from others.

(a) Composition and Decomposition

Much but by no means all worldmaking consists of taking apart and putting together, often conjointly: on the one hand, of dividing wholes into parts and partitioning kinds into subspecies, analyzing complexes into component features, drawing distinctions; on the other hand, of composing wholes and kinds out of parts and members and subclasses, combining features into complexes, and making connections. Such composition or decomposition is normally effected or assisted or consolidated by the application of labels: names, predicates, gestures, pic-

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* In Art and Illusion (Pantheon Books, 1960), E. H. Gombrich argues in many passages against the notion of the innocent eye.


* Cf. SA, pp. 127–145; and “Sense and Certainty” (1952) and “The Epistemological Argument” (1907). PP., pp. 69–75. We might take construction of a history of successive development of worlds to involve application of something like a Kantian regulative principle, and the search for a first world thus to be as misguided as the search for a first moment of time.