Chapter 6 The Effects of Goodman's Nominalist Constructionalism on his Epistemology

Abstract Goodman's worldmaking is dependent upon his notion of induction, the issue of which was not solved by Hume, as the problem of distinguishing which regularities could be projected into the future and which regularities would not be projected still remained - hence, Goodman's "new" riddle. The answer to the problem of the projection of predicates is also constructionalist in that we are free to re-make our world; inductive practices, which are the fundamental mechanism with which we cognize, are determined by social practices, and we - as a collective of individuals - are able to remake those patterns. The principle is one of pragmatism, which is a strand of thought that continually resurfaces in Goodman's philosophy. All knowledge is relative to the system in which it resides, and the "truths" within one system are relative only to that system, making all knowledge relative, with the notion of "truth" only applied to statements of subject-predicate form, and all other sentences falling under the notion of "right fit". The underlying argument is that we do not see the world in a direct and unmediated manner; his worldmaking allows us to create worlds that are made by social agreement on inductive practices revealed in the general projection of certain predicates, which themselves referentially relate to other entities

6.1 Induction and Projection of Predicates

Nelson Goodman's article "The New Riddle of Induction", published in *Fact, Fiction, and Forecast* in 1954, elicited not only many, many responses in the philosophy journals but also earned its own book entitled *Grue*: *The New Riddle of Induction* (edited by Douglas Stalker), the end of which has a 316-entry annotated bibliography with each entry referencing Goodman's "grue" paradox. The word "grue", as used in "The New Riddle of Induction", was defined by Goodman as: "...all things examined before t just in case they are green but to other things just in case they are blue." Hilary Putnam, in his introduction to the fourth edition of *Fact, Fiction*,

¹ Nelson Goodman, Fact, Fiction, and Forecast (Harvard University Press, 1983), 74.

and Forecast, describes the predicate grue as: "If it is either observed before a certain date and is green, or is not observed before that date and is blue." Obviously, this applies to the emeralds examined before time t because they were found to be green, and, therefore, they are grue. So we have good reason to believe that since all emeralds before time t were green, and hence grue, that all emeralds after time t will also be grue. But in that case, they will also be blue.

Since evidence statements regarding all the emeralds before t confirm that they are all grue, they also unfortunately confirm, in turn, both of the competing hypotheses e.g., (1) that all emeralds are green and (2) that all emeralds are blue. Though we – safely outside the experiment – know which predicate is truly projected and, therefore, know that the emeralds will be green, the logical difficulty is that that information cannot be garnered only from the evidence presented. The difficulty, in essence, is how to distinguish law-like hypotheses from accidental ones.

The word, derived from James Joyce's word "gruebleen", which was published in 1939 in his novel Finnegan's Wake, was used to illustrate the main problem in induction: how do we distinguish the properties that we can correctly project from a sample to the wider population from those properties that cannot be so projected? Hume had, according to many philosophers in the past, incorrectly seen the problem of induction as how to justify induction - a problem since we have neither experience nor necessity from which to draw any predictions that we might have about the future. Hume, again according to some, then spoke only of the origin of inductive generalizations e.g., habit, and did not, therefore, address the more pertinent problem of the justification for induction. Goodman recasts the problem, noting that Hume attempted to give the necessary and sufficient conditions for valid induction, which were, in fact, an attempt to define valid induction, and he notes, "we owe belated apologies to Hume". 4 But Hume's reliance on habit to explain induction was, to Goodman, incomplete: "The problem of induction is not a problem of demonstration but a problem of defining the difference between valid and invalid predictions".5

And this is not so easy as it might seem. Carnap, Hempel, and others had devoted extensive parts of their writings attempting to codify inductive practices, and rival positions such as confirmation theory, Baysian logic, etc., abounded. But it was Goodman who, by arguing, in effect, that inductive logic – unlike deductive – is simply without the syntax that enables us to formally delineate valid from invalid, silenced those attempts. The notion that induction could have a valid form was abandoned. But the problem of distinguishing which regularities could be projected into the future and which regularities would not be projected still remained – hence, the "new" riddle. In other words, any object has numerous variables associated with it,

² Ibid., vii

³ Douglas Stalker, "Introduction" in *Grue! The New Riddle of Induction*, Douglas Stalker (ed.) (Open Court Publishing, 1994), 1.

⁴ Nelson Goodman, Fact, Fiction, and Forecast (Harvard University Press, 1983), 64.

⁵ Ibid., 65.

and some of those variables are repeated instances seen in past examples of the same kind of object as is seen in the present i.e., this year's couch is soft, large, brown, and made of rough fabric – just like last year's. But here is the difficulty: some of those repeated variables will be predicted by the viewer to be repeated in the future but some others will not be so projected. On what bases are some projected yet not others?

Goodman explains induction as the process of projecting valid predicates when they positively correlate with past inductive projections of the culture, and, contrary to that, we decide not to project predicates when they yield "inacceptable inferences". It is the latter that we call invalid projections, and that applies when the inference "violates a rule we are unwilling to amend". He uses the example of the word "fish": we used to apply the word to whales, but ultimately we were forced to admit that such a definition violated other definitions in ways that were unacceptable i.e., it violated other rules we were unwilling to amend. Hence we re-defined the word "whale" so that the other definitions might remain. Not unlike Wittgenstein's late philosophy, Goodman is maintaining that the usage determines the definition and the definition determines the extension of the term. He describes this process thus:

The point is that rules and particular inferences alike are justified by being brought into agreement with each other. . . .

An inductive inference, too, is justified by conformity to general rules, and a general rule by conformity to accepted inductive inferences. Predictions are justified if they conform to valid canons of induction; and the canons are valid if they accurately codify accepted inductive practices.⁸

It had been thought, by Hempel and others, that the problem of determining what distinguishes valid from invalid inductive generalizations must be found within the distinction of law-like generalizations and non-law-like generalizations. But what the grue paradox showed was that equally confirmable hypotheses can be projected e.g., the next emerald can be green and the next emerald can be grue, and, therefore, blue, on the basis of the given evidence. To say that valid predictions can be determined if we base them on past regularities doesn't answer the question because there are past regularities that we do not project. As Goodman states, "Regularities are where you find them, and you can find them anywhere. As we have seen, Hume's failure to recognize and deal with this problem has been shared even by his most recent successors." The question still remains: how do we know something is law-like?

The answer is both social and an instance of constructionalism. It is social because we project predicates that are "entrenched" due to the fact that they are in accordance with the practice of our community. As he explains it in the essay

⁶ Ibid., 63.

⁷ Ibid., 64.

⁸ Ibid., 64.

⁹ Ibid., 82.

entitled "The Problem of Projection" that follows "The New Riddle of Induction", "Plainly 'green', as a veteran of earlier and many more projections than 'grue', has the more impressive biography. The predicate 'green', we may say, is much better *entrenched* that the predicate 'grue'." (italics his)

Goodman is pointing out that we do not see the law-like nature of the inductive generalization in the form of the statement itself, but we see the inductive generalization in the larger context of social practice. It is not syntax that determines valid induction but conformity to social practice. Goodman reiterates this point in many of his writings, as the following two excerpts show: "What makes a category right? Very briefly, and oversimply, its adoption in inductive practice, its entrenchment, resulting from inertia modified by invention." And, in *Ways of Worldmaking*, he makes a similar point: "A primary factor in projectibility is habit. .." "Rightness of induction requires rightness of predicates projected, and that in turn may vary with practice."

The answer is also constructionalist in that we are free to re-make our world; inductive practices, which are the fundamental mechanism with which we cognize, are determined by social practices, yet we - as a collective of individuals are able to remake those patterns. We can consciously alter our habits, and, in fact, that is exactly what constantly changing cultures do. Because we sometimes amend our inductive rules to be in conformity with certain practices that we do not want to abandon, and because we likewise sometimes are willing to abandon practices instead of changing rules, we are constantly able to re-create our social entrenchment habits. Theory and practice are inter-related yet mutually affecting. The principle is one of pragmatism, which is a strand of thought that continually resurfaces in Goodman's philosophy. The important point to notice is that Goodman never appeals, as does Quine, to any kind of innate structures governing the entrenchment process, such as an innate ability to have made comparative similarity judgments. There are no natural kinds for Goodman. Thus, induction forms an essential element in Goodman's worldmaking and in his relativism and his pluralism, which I will separate into individual sections; though their concerns implicate one another, I will first explain each independently.

6.2 Epistemological Relativism

While Goodman certainly discusses his relativism in his first book, *The Structure of Appearance*, and repeatedly in other publications, it is the primary focus of his second-to-last publication, namely, *Ways of Worldmaking*. Of the seven chapters in the book, the first four had been published in journals, and it is the first chapter,

¹⁰ Ibid., 94.

¹¹ Nelson Goodman, Of Mind and Other Matters (Harvard University Press, 1984), 38.

¹² Nelson Goodman, Ways of Worldmaking 4th ed. (Hackett, 1985), 128.

¹³ Ibid., 129.

"Words, Works, Worlds" that clearly explicates both his relativism and his world-making. In what can easily be seen as incorporating Russell's theory of descriptions and his notion that phrases do not refer though complete sentences do, Goodman states in the beginning of that chapter:

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. 14

Both of these statements do not, so to speak, refer in and of themselves, but are truncated from the larger system of which, properly viewed, they are an integral part. In other words, they are "true" relative to their individual systems of descriptions. Truth is relative.

That there are many different systems, varying from physics, biology, Impressionist art, and literature, which cannot be reduced to any of the others, is both an argument for epistemological relativism and an argument against those empiricists who posit a given, and also against both the phenomenalist and the physicalist who each claim epistemological priority. Goodman is arguing that there is no one world, neither in the sense that any of them are reducible to a more fundamental one, (clearly, in this way he differs enormously from Russell), nor can they all be combined and through conjunction form one complete world, for the "truths" in one are not necessarily truths in another. As he states:

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. ¹⁵

We are better off, he is saying, if we give up on the false hope that "monopolistic" philosophies offer us, along with giving up the false promises of a correspondence theory of truth. All knowledge is relative to the system in which it resides, and not only can different systems not be reduced to each other, but the "truths" within one system are relative only to that system, making all knowledge relative: "Not only motion, derivation, weighting, order, but even reality is relative." And Goodman is unflinching in his relativism. He refuses to reduce the claim that incompatible systems are also equally right systems to merely a case of saying the same thing in different ways, for that would presuppose the legitimacy of synonymy. The latter is an assumption that Goodman, along with Quine, has rejected, as for example, in his article "Likeness of Meaning", published in 1949, wherein he argued that even a synonymy based on extensional definitions would also not yield two terms with the

¹⁴ Ibid. 2.

¹⁵ Ibid., 4.

¹⁶ Ibid., 20.

same meaning. Hence, we do not have different versions of the same thing, but, in fact, different things.

This point is articulated in the sixth chapter in *Ways of Worldmaking*, which is entitled "The Fabrication of Facts", wherein he argues his position that facts are made – not found – and that different systems give us incompatible yet true facts, such that it is not acceptable to say that two different systems give us "versions of the same fact". As he states:

If we are tempted to say that 'both are versions of the same facts', this must no more be taken to imply that there are independent facts of which both are versions than likeness of meaning between two terms implies that there are some entities called meanings. 'Fact' like 'meaning' is a syncategorematic term; for facts, after all, are obviously factitious...Meanings have been replaced by reference – or the relationship among terms – and facts also are replaceable by analysis of 'relationships among versions'.¹⁷

Goodman is intent on denying that the relationship between the viewer and the thing viewed is one of "correctly" determining the aspects of that object which exist both independently of the perceptual process, and a priori of the viewing. For Goodman, there is no world unperceived, and one viewing of it cannot be privileged over another.

The underlying argument is that we do not see the world in a direct and unmediated manner; Kant, Goodman feels, was right about that part. We do not merely see, but we construct what we see. When Goodman declares, "The myths of the innocent eve and of the absolute given are unholy accomplices". 18 he is concomitantly dismissing the view that the object in front of us (and this applies to the artwork as readily as to any other phenomenal experience) is a completely constituted object that we merely absorb, and he is also dismissing the positivists' commitment to the empirical given. Instead, he argues that we construct the data as we absorb it. "Our capacity for overlooking is virtually unlimited", he states in Ways of Worldmaking and his point is also the obverse: we choose – either through the adoption of entrenchment practices given to us in the social order or by our own willful choices – to include and categorize some data to the exclusion of other data. 19 Hence, "the world" is not singular; it cannot be reduced to one version, and our understanding of it cannot be accomplished by identifying the correct metaphysical unit of existence; there is no "correct", there is only that which is relevant to the inquiry at hand, and is, hence, relative to that system. For Goodman, the statements "The sun revolves around the earth" and "The earth revolves around the sun", can both be true if each is interpreted within the system that describes those relations. It is adamantly not the case that the relationship between the viewer and the thing viewed is one of "correctly" determining the aspects of that object, which exist independently of the perceptual process. Again, Goodman rejects the basic assumptions on which most philosophers base their arguments, and claims that since there is no world

¹⁷ Ibid. 93.

¹⁸ Nelson Goodman, Languages of Art 2nd ed. (Hackett, 1976), 8.

¹⁹ Nelson Goodman, Ways of Worldmaking 4th ed. (Hackett, 1985), 14.

except those worlds we make and perceive, one view cannot be privileged over another. He reiterates this view in many of his writings, such as in the following two examples:

If I were to ask what is the food for men, I should have to answer 'none'. For there are many foods. And if I am asked what is the way the world is, I must likewise answer, 'none'. For the way the world is and that this way is not captured by any description. For me, there is no way that is the way the world is; and so of course no description can capture it. But there are many ways the world is and every true description captures one of them. The difference between my friend and me is, in sum, the enormous difference between absolutism and relativism.²⁰

But once we recognize that some supposed features of the world derive from – are made and imposed by – versions, 'the world' rapidly evaporates. For there is no version – independent feature, no true version compatible with all true versions.²¹

Reality is literally what we make it, and our knowledge (if it can still be called that) is relativized to only that world – the world we are now understanding by analyzing the referencing functions of the symbols that pertain only to that world. Therefore, reference is seen as the essential mechanism by which we understand those worlds we create. And it is the referential function within worldmaking that allows Goodman to answer the complaint issued against the phenomenalist e.g., how do I know that my phenomenal experience is like yours? It is to that that we now turn.

6.3 Metaphysical Pluralism: Worldmaking

Goodman's epistemological relativism leads directly to his metaphysical pluralism, for if each system of knowledge has truths relative only to that system, and different systems can be both incompatible and equally 'true', then, clearly, one has many different "worlds". As he states:

...in what non-trivial sense are there...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 monopolistic 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. ²²

It must also be noted that Goodman's pluralism is an attack not only on the reductionism of his time, but also a criticism of the broader practice of assuming the a priori existence of the elementary units of perception or cognition. He rejected the notion of an elementary substance of reality – which, in the mid-twentieth century, was seen as a debate between reductive materialism and phenomenalism – and replaced it with a constructional pluralism. In doing this Goodman demonstrated

 $^{^{\}rm 20}$ Nelson Goodman, Problems and Projects (The Bobbs-Merrill Company, Inc., 1972), 31.

²¹ Nelson Goodman, Of Mind and Other Matters (Harvard University Press, 1984), 33.

²² Nelson Goodman, Ways of Worldmaking 4th ed. (Hackett, 1985), 4.

that he was uncompelled to choose sides between the phenomenalists and the physicalists, and instead issued a position guaranteed to annoy both.²³ As Hilary Putnam characterized Goodman in his essay "Reflections on Goodman's Ways of Worldmaking":

Reducing sense data to physical objects or events is an admissible research program for Goodman, it is no more (and no less) reasonable than reducing physical objects to sense data. As research programs, there is nothing wrong with either physicalism or phenomenalism; as dogmatic monisms there is everything wrong with both of them.²⁴

Hence Goodman adopts phenomenalism in *The Structure of Appearance* as part of a "research program" but refuses to unqualifiedly commit to it. Goodman recognized that the difficulty lies in the proposed translation between the thing language and either (a) the sense-datum language of the phenomenalists or (b) the brain-state language of the physicalists. Either kind of translation is, as Goodman states in *The Structure of Appearance*, a proposed "extensional isomorphism" that promises to preserve the truth-value found in the thing language. But this is precisely where both theories run into trouble. I will address the problems involved in phenomenalism first.

Phenomenalism cannot describe the world in phenomenalist terms without recourse to an object-language; hence calling into question the unprovable assumption that reality is, a priori, given in such a phenomenalist form. Furthermore, this conception of reality also presupposes the fallacious (according to Goodman) empirical assumption that reality exists apart and separate from our conception and that truth is the proper reflection of that antecedent reality e.g., the correspondence theory. In addition, the phenomenalist must also address the two main problems associated with the theory: (1) how can I guarantee that my previous experience was identical to this present experience? and (2) how do I know that my phenomenal experience is like yours? Goodman can provisionally adopt phenomenalism in experimental form for the purposes of the constructionalism because he has answers to most of these problems. First, he does not adopt the position that there are ready-made metaphysical units, nor does he adopt the correspondence theory; hence, he essentially avoids both of those objections. He solves the second of the enumerated questions e.g., "how do I know that my phenomenal experience is like yours?" in his worldmaking theory, wherein worlds are made by social agreement on inductive practices revealed in the general projection of certain predicates, which themselves referentially relate to other entities. Hence, I know my experience is like yours because we have agreed to construct our world, we have agreed on the terms used, and we have agreed on the referential function of those terms. In other words,

²³ It should be remembered that Goodman does not adopt phenomenalism in any way other than provisionally for the purposes of his constructionalism.

²⁴ Hilary Putnam, "Reflections on Goodman's *Ways of Worldmaking*", The *Journal of Philosophy* (1979) LXXVI(II), 603.

he has taken the private, as it were, out of phenomenalism. And, finally, Goodman addresses the problems inherent in phenomenalism by saying, in effect, that he is not essentially committed to it. It will be remembered that his constructionalism takes phenomenalism as a starting point not because Goodman is adamant about being a phenomenalist, but because the problems Carnap had experienced as a consequence of starting with physicalism were too insurmountable. Goodman is a pluralist; he theoretically could have started with another set of primary predicates that were not phenomenalistic.

Physicalism, which also demands the correspondence theory of truth as part of its epistemology, had even more insurmountable problems for Goodman. Goodman argues that the physicalists predicated their analyses of ontological facts on proofs that would someday – with enough advancement in science – be evident. In other words, science would someday explain away the troublesome non-material entities, and physicalism would be vindicated. Though the thing-language is riddled with mental terms, including belief ascriptions, the physicalists argued that science would someday be able to explain these in neural, chemical, and, hence, physical terminology. For Goodman these claims are too large to be taken on faith; hence, Goodman rejected the physicalist option as well as rejecting a full-blooded acceptance of phenomenalism, and committed himself instead to pluralism.

Pluralism was also the consistent and logical extension of Goodman's constructional adequacy criteria for definitions as formulated in SA, and pluralism does not easily fall prey to criticisms of unfounded, mystical speculation or to the fallacy of banking on the promissory notes of science. It is consistent with the deflationary nominalism that Goodman is adamant to maintain because it does not necessarily countenance any entities other than individuals.

By discarding the basic premises of both the physicalists and the phenomalists i.e., the identification of the raw material of knowledge – Goodman instead focuses on what it is that we ultimately call knowledge. His analysis of ontology is thus similar to his analysis of art, which is also accomplished by identifying relations between constructed objects and not by searching for the natural objects or basic units. It is the relationships and the symbols used to represent those relationships that constitute knowledge, and these alone are the important points for Goodman. In other words, it is not what the data is when it is originally given, but the fact that that data takes certain forms when it is called knowledge. We cannot know its original form, and as Goodman states, "The issue is not what is given but how it is given. Is it given as a single whole or is it given in many small particles? This captures the precise issue – and at the same time discloses its emptiness." 25

The point is what we call knowledge. We cannot point to a final answer to the question, "how is reality given to us?" All we can hope to do is define what constitutes reality at the point where we agree that we have knowledge. "Reality" prior to our knowledge constructs is an oxymoron to Goodman. The very important

²⁵ Nelson Goodman, *Problems and Projects* (The Bobbs-Merrill Company, Inc., 1972), 26–7.

thing here is to recognize that Goodman is arguing for a radical version of what, in fact, others have argued for: a metaphysical role for the observer. Not unlike Kant, Goodman is arguing that reality is, apart from the (to use Kant's word) "concatenation" of the data, virtually empty. There is no (phenomenal) reality separate from our absorption and arrangement of the information into those categories we find relevant. And it is our act of finding them relevant that makes them relevant and, hence, makes them real. It is, as it were, performative, in that way that the Oueen makes a man a knight by granting him knighthood; analogously, we make reality by deeming something worthy of the accolade "real". Since "our capacity for overlooking is virtually unlimited", our act of recognizing something as real is an action born of social habit and individual choice and is, hence, at least somewhat voluntary, for it could have been otherwise e.g., we could have overlooked it. In other words, the freedom of choice to project certain predicates over others has led us to the metaphysical freedom of creating what it is that we experience e.g., worldmaking. Goodman reiterates this freedom in virtually all of his writings, which the following excerpts demonstrate:

Worldmaking sometimes, without adding or dropping entities, alters emphasis, and a difference between two versions that consists primarily or even solely in their relative weighting of the same entities may be striking and consequential.²⁶

Wartofsky and Gardner participate in the current transition from static absolutism to dynamic relativism in epistemology. The search is no longer for a raw given or fixed forms of the understanding or a unique and mandatory system of categories. Rather knowing is conceived as developing concepts and patterns, as establishing habits, and as revising or replacing the concepts and altering or breaking the habits in the face of new problems, needs, or insights. Reconceptions, reorganization, invention, are seen to be as important in all kinds of knowing as they are in the arts.²⁷

Truth of a hypothesis after all is a matter of fit – fit with a body of theory, and fit of hypothesis and theory to the data at hand and the facts to be encountered...But such fitness, such aptness in conforming to and reforming our knowledge and our world, is equally relevant for the aesthetic symbol. Truth and its aesthetic counterpart amount to appropriateness under different names. If we speak of hypotheses but not of works of art as true, that is because we reserve the terms 'true' and 'false' for symbols in sentential form. 28

Since no part of reality is given to us in a pure, unprocessed state, we are then intimately involved in its formation. Our process of selection – what we ignore, what we choose, and how we integrate what we choose into the already existing epistemological system – determines the form of the "fact" that we, therefore, construct. Having rejected the epistemological purity of the Humean or Lockean empiricists, Goodman merges epistemology with metaphysics. The former does not analyze how we know independently of the metaphysical question of what we know: the metaphysical does not exist independently of the epistemological.

²⁶ Nelson Goodman, Ways of Worldmaking 4th ed. (Hackett, 1985), 101.

²⁷ Nelson Goodman, Of Mind and Other Matters (Harvard University Press, 1984), 19.

²⁸ Nelson Goodman, *Languages of Art* 2nd ed. (Hackett, 1976), 264.

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Goodman's notion of truth is noticeably different from most philosophers. This is the joint consequence of several different strains in his philosophy: his pluralism, his relativism, his coherentism, and his constructionalism. Though Goodman's introduction of the supplemental notion of "rightness of fit" is significantly at odds with traditional substitutability definitions of truth, he is in agreement with philosophers on some grounds. For example, he agrees with some philosophers, such as Russell, who found the Fregean notion of sentential truth-values implausible:

But what, if anything, does a sentence denote? According to a view prevalent among logicians, a statement denotes a truth-value; that is, all true statements denote truth, and all false statements denote falsity. I dislike this on at least three scores: first, reification of truth-values...second, identification of the denotata of all true statements...third, lack of any provision for nondeclarative statements.²⁹

Furthermore, Goodman does not completely abandon the traditional sense of the term "truth" but states that that can only be applied to verbal statements that can accurately be said to be true or false, since only they have the strictly circumscribed relation of a predicate describing (or failing to describe) a subject. As he states it in the interview published in *Of Mind and Other Things*:

I like to keep the term 'true' for statements. Statements in a language are true or they are false. I don't like to speak of a picture as being true or false, since it doesn't literally make a statement. But I would rather say that a picture can be right or wrong the way a design can be right or wrong.³⁰

But many sentences are not statements or propositions, for which Goodman introduces the notion of "rightness of fit". This is meant to include all the sentences that are not in propositional form plus all non-verbal information. For example, there are many sentences, such as found in metaphors, than cannot be said to be either literally true or false, and yet they are meaningful and we often call them "true". Goodman wants to explain their epistemological role given that they have no sentential truth-value. Hence, the notion of "right".

In order to understand this it is important to remember that apart from a system, an entity is indeterminate. As he describes it in *The Structure of Appearance*, a point is relative to each acceptable system, and in that system, the point is determinate. But absolutely and independently of the systems we construct, it is indeterminate; therefore, the notion of rightness of fit. Each definition is right within its own system; thus, rightness serves as a kind of harness on relativism – such that not everything is acceptable – and issues of consistency, coherence, appropriateness within the system, and accordance with past practice and antecedent projections, are all constraints he recognizes. But no cases can be tested for correctness by being compared with a monolithic "world", since there is no source of undescribed

²⁹ Nelson Goodman, Of Mind and Other Matters (Harvard University Press, 1984), 56.

³⁰ Ibid., 196.

reality, so "truth" – in its traditional correspondence capacity – has no meaning for Goodman in this context.

What makes something "right" in a given "world" is if that particular fact has explanatory power in that world i.e., whether or not it improves our knowledge in that particular discipline. If it fails to cohere with the rest of the accepted body of facts, then we have two options: we can reject the new fact and call it "false", or we radically alter the rest of the body of knowledge so that the new fact is now consistent with the whole. (This is similar to Quine's coherentism as described in *The Web of Belief.*) In other words, we either change the theory or reject the fact, and it is this constantly re-occurring process that stimulates the evolution of "worlds". We do not invent worlds from scratch, but rather, through this process of "amending a ragged practice" we invent new worlds out of old. As he states it:

Standards of rightness in science do not rest on uniformity and constancy of particular judgments. Inductive validity, fairness of sample, relevance of categorization, all of them essential elements in judging the correctness of observations and theories, do depend upon conformity with practice – but upon a tenuous conformity hard won by the give-and-take adjustment involving extensive revision of both observations and theories. Standards of rightness in the arts are likewise arrived at, tentatively and imperfectly, on the basis of but also amending a ragged practice.³¹

This places induction in a primary epistemological role. Since we construct our worlds, the correctness of that construction is dependent upon the rightness of the categorization of facts that we have deemed pertinent, which in turn is dependent upon the proper inductive reasoning that yields the correct projection of predicates. And since inductive inference requires neither syntactical regularities, nor even the truth of premises or conclusion as a correct "inductive argument may even yield a false conclusion from true premises", 32 what makes an inductive argument right is, simply, the general acceptance that it is right. This standard seems, Goodman recognizes, problematic:

Obviously we cannot equate truth with acceptability; for we take truth to be constant while acceptability is transient. Even what is maximally acceptable at one moment may become inacceptable later. But ultimate acceptability – acceptability that is not subsequently lost – is of course as steadfast as truth. Such ultimate acceptability, although we may seldom if ever know when or whether it has been or will be achieved, serves as a sufficient condition for truth. And since acceptability involves inductive validity, which involves right categorization, which involves entrenchment, habit must be recognized as an integral ingredient of truth.³³

The ultimate criterion for knowledge-acquisition is not, therefore, the same as truth. The latter is a subset of the former, whereby the former also includes the inductive categorization that results in worldmaking. As the lexicographer is dependent upon the antecedent definition established by usage, so our knowledge claims are

³¹ Ibid. 7.

³² Ibid., 37.

³³ Ibid., 38.

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dependent upon social entrenchment; we project "green" and not "grue" because "green" is a term that is habitually projected by society and individual usage conforms to that. We do not, in other words, project predicates as isolated individuals, and acceptability thus is at the basis of the projection of predicates. As Goodman states it:

What I have been saying bears on the nature of knowledge. On these terms, knowing cannot be exclusively or even primarily a matter of determining what is true. Discovery often amounts, as when I place a piece in a jigsaw puzzle, not to arrival at a proposition for declaration or defense, but to finding a fit. Much of knowing aims at something other than true, or any, belief. An increase in acuity of insight or in range of comprehension, rather than a change in belief, occurs...³⁴

This broadening of the criterion for knowledge is an important part of Goodman's epistemology. Putnam makes note of this when he says, "Consider the experience of reading a novel like Don Quixote. One thing that happens to us is that our conceptual and perceptual repertoire becomes enlarged. ...This enlargement of our stock of predicates and of metaphors is cognitive."

But others have not been so favorable towards Goodman's notion of knowledge or truth. Hempel quotes Neurath – who also questioned the notion of an unconceptualized reality – as saying: "It is always science as a system of statements which is at issue. Statements are compared with statements, not with 'experience', 'the world', or anything else." Hempel argues that while the two points of view e.g., those of Goodman's and Neurath's – are not identical, there is much that is shared. As he states, "The central idea in Goodman's book that has a strong kinship with one of Neurath's theses is to the effect that the rightness of a version cannot be characterized as its applicability to the world." The difficulty that Hempel sees in this sort of relativism is its fundamental inability to support science. As he states:

But Neurath's formulations – and I think to some extent Goodman's – give rise to the uneasy feeling that we are being offered a coherence theory of knowledge, in which simplicity, scope, and coherence are the dominant requirements for acceptable theories; and one wonders how the empirical character of scientific claims or versions is accommodated in this conception of making version from version and adjudicating proposed hypotheses by their fit with the accepted system.³⁸

Hempel, like other empiricists, is concerned that theories will be too readily adjusted so that their internal consistency is more valued than their adherence to the external facts. Of course, Hempel was implicitly positing an independent and metaphysically attenuated reality and the correspondence theory that accompanies that point of view because Hempel was concerned about the actual physical sciences in ways

³⁴ Nelson Goodman, Ways of Worldmaking 4th ed. (Hackett, 1985), 21.

³⁵ Hilary Putnam, "Reflections on Goodman's *Ways of Worldmaking*", *The Journal of Philosophy* (1979) LXXVI(II), 614–615.

³⁶ Carl Hempel, "Comments on Goodman's Way of Worldmaking", Synthese (1980) 45, 193.

³⁷ Ibid.

³⁸ Ibid., 196.

Goodman was not. Goodman's notion of science remained somewhat abstract – a methodology requiring rigor and precision but not necessarily a practice that discovered a world already made, though the latter is surely the scientist's point of view. Goodman seems as unconcerned with the actual practice of real science as he does with the actual practice of real mathematics; in both cases he is willing to excise the practitioners rather than accommodate his philosophy to their methodology. This seems problematic at least. For mathematicians who need the null set, classes, infinity, and sets, Goodman is as willing to ignore them and their demands as he is willing to ignore the demands of empirically-minded scientists. In both mathematics and science Goodman seems willing to adopt the style of the investigation though not the substance.