Chapter 4
Twentieth Century Epistemology

Abstract While Goodman held many points in common with the positivists, he never claimed affiliation with them. Among the points he held in common were the notion ontology must be understood as reducible to atomic units (Wittgenstein's *Tractatus* had established the legitimacy of that view); that this logical atomism was mirrored in language instead of being found in either the abstraction of mathematics or in metaphysical speculation; and that these be only provable truths - or as Russell said, "what science cannot discover, mankind cannot know". But Goodman rejects the positivists' sense data and their phenomenal reality, as he also rejects the positivists' "the given", as it had an odd way of evaporating upon close examination. Instead Goodman's is a referential account within semantics, giving an analysis of the relationship between language and its objects. Language is bound by truth and by logic. And we know the world by means of reference, not by meaning - for truth conditions will be undermined by the existence of intensional contexts for which we possess no rules of replacement.

4.1 Introduction

Having explicated Goodman's nominalism and the effects of his nominalism on his concepts and terms available to him, it is now necessary to examine his epistemology and the ways that that epistemology can be developed in light of the parameters established by his strict nominalism; this is necessary in order to eventually examine, in Part III, how both the epistemology and the nominalism affect his aesthetics. In regard to the adoption of an epistemology, it is immediately obvious that Goodman would be unable to posit a rationalist epistemology founded on a priori knowledge, as that would be inconsistent with his parsimonious and sparse ontology that demands strict proof for existence claims, and it would also be inconsistent with how Goodman understands the demands of Ockham's razor; but it is less obvious what other options might be unavailable to him. It is methodologically sound to delineate options deemed unacceptable before examining those that are chosen, because the arguments proffered for the latter can only be fully understood once they are seen in the light of what the theorist is trying to avoid. The following first chapter of this section will therefore examine the epistemological issue in that

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negative light e.g., what arguments presented themselves as invalid to Goodman? This will be examined in consideration of both his ontological commitments and also given the prevailing positions current at the time, for while arguments condemned by others cannot be given as a necessary reason why Goodman would also not adopt similar positions, it must be admitted that influences do exist. Philosophers do not philosophize in a vacuum and influences cannot be overstated, for they both direct and limit the possible avenues of thought.

Therefore, in order to fully understand Goodman's philosophy it is necessary to explicate the debates current at the time Goodman was first developing his own thought. Most pertinently, he, along with Quine and others, was trying to develop an epistemological framework in conjunction with an ontology that did not succumb to the pitfalls recently suffered by the positivists. But in doing this it must also be noted that Goodman's epistemology in many ways agrees with various tenets of positivism. In summarized fashion, they are as follows:

- All reality is composed of basic building blocks.
- Follow the dictum: "what science cannot discover, mankind cannot know".
- The rejection of the a priori and of metaphysical speculation.
- Philosophy, properly construed, is about the language through which we speak about the world.
- A symbolic system can be meaningful because it is an agreed-upon use of constructed symbols.
- An analysis of language in terms of the conditions that make a sentence meaningful provides those conditions that confirm the truth or falsity of that sentence.
- There is only the possibility of a piecemeal analysis.

While he held these many points in common with the positivists, he never claimed affiliation with them. The obvious questions are (1) why? and (2) in what way does he diverge? The answer to the second question can be summarized by referring to the introduction, written by Geoffrey Hellman, in *The Structure of Appearance*:

> Goodman's corpus, from the perspective of major theses that emerge, constitutes a rather coherent – if scattered – whole. The most important for approaching Structure can be subsumed under four headings:
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> 1) the methodological outlook of constructionalism;
> 2) an anti-foundationalist epistemology: rejection of the "given", of any effort to sever perception from conceptualization (hence of all such approaches to an observation/theory dichotomy for science), and of the a priori, in favor of a modified coherence view of justification;. . ..
> 3) The emphasis on multiple systems and starting points adequate to their respective purposes along with renunciation of a single correct system embracing all knowledge or reality – methodological and ontological pluralism;
> 4) The view that what are often taken as 'ultimate' metaphysical questions (concerning constituents or categories of 'reality') are pointless except when relativized to a system or 'way of construing' reference – a kind of metaphysical and ontological relativism.[1]

[1] Nelson Goodman, *The Structure of Appearance* (Reidel, 1977), xix–xx.

The second point is the crucial one, as the third and fourth points are a consequence of the second, in ways that will be explained in both this chapter and the next. The problem with "the given" was a central problem of the 1930s and 1940s, and it was this issue that separated Goodman from the positivists. The original positivists held that "the given" – those basic experiences that form the foundation of empirical truth – was phenomenalist, but later some of the positivists adopted physicalism after they failed to establish a coherent theory that could make sense of a phenomenal "given". Though Goodman's epistemology, as articulated in *The Structure of Appearance* and in later writings, is a phenomenal one, he yet argues that his constructionalism would also allow a physicalist (e.g., object) epistemology. In order to understand Goodman's position vis-à-vis these two alternative epistemologies and to understand why he developed an epistemology uniquely at odds with positivism while still maintaining those points held in common with it, it is necessary to briefly review twentieth-century logical positivism, followed by an exegesis of the subsequent development of semantics, for it is the adoption of semantics which, when combined with Goodman's phenomenal-based constructionalism, gives him the distinctive theories for which he is known.

4.2 Goodman Adopts the Postivists' Aversion to Metaphysics

A group of young philosophers in Continental Europe, who called themselves "The Vienna Circle", had members that included, among others, Moritz Schlick, Rudolf Carnap, Otto Neurath, and A.J. Ayer. Beginning in 1922, it soon became a force in the philosophy world, and though Goodman was not directly involved, he was so indirectly through his friends and associates. For example, Quine, during a post-doctoral fellowship from Harvard in 1932–1933, attended meetings of the Vienna Circle, and also spent several months in Prague, where he met Carnap. Goodman later joined these meetings, and through his close relationship to both Quine and Carnap, had an intimate knowledge of the positivist program, which was therefore a prominent contender in debates regarding possible positions for both Goodman and for others.[2]

Though neither Bertrand Russell nor Ludwig Wittgenstein directly joined the Vienna Circle, their influence was enormous. Wittgenstein's *Tractatus* had established the legitimacy of the view that ontology must be understood as reducible to atomic units and that all reality was composed of these as the basic building blocks. This logical atomism was mirrored in language, and hence the basic truth of reality was found in these atomic units and the language that mirrored them, and was not found in either the abstraction of mathematics or in metaphysical speculation. The logical positivists were proposing a methodology that was rooted in the scientific

[2] Alex Orenstein, *W.V. Quine* (Princeton University Press, 2002), 5.

dictum that only provable truths were to be accepted as truths – or as Russell said, "what science cannot discover, mankind cannot know".

This positivist argument can be traced back to the Humean position that also exhibited an aversion to metaphysics. Hume divided knowledge into (1) "relations of ideas", wherein mathematics was relegated to tautological truths exemplifying simply a consistent way of using symbols and seen as containing no statements about the world, and was contrasted with (2) the empirical statements called "matters of fact". It is the latter that hold significance for both Hume and the logical positivists, as these are those things that can gain intersubjective agreement. Goodman, too, was committed to only those things that can gain intersubjective agreement, as he was also committed to the positivists' position that philosophy is not about "the world" (for that is not directly confirmable) but about the language through which we speak about the world, for we can confirm or disconfirm the latter.

The logical positivists emphatically denied Kant's unique category of the synthetic a priori, which, derived from his adaptation of the Humean distinction between matters of fact and relations of ideas, was reformulated into "synthetic" and "analytic". The synthetic a priori, of which mathematics was the prime example, claimed mathematics as both necessary and a priori and also as a subject that was experienced as new information. The positivists' rejection of the synthetic a priori, which Kant had defined as both true independent of experience and also synthetic – because it does not tautologically repeat itself but requires the cognitive and constructive act of counting – defined early twentieth-century analytic thought. This is owed to Russell and Whitehead, who, in *Principia Mathematica*, demonstrated that Kant's famous example of a synthetic a priori in the instance of $7 + 5 = 12$ is essentially a series of 1s on each side of an equal sign, making the statement without constructive and cognitive synthesizing. Therefore, they concluded, there was no synthetic a priori.

The rejection of the synthetic a priori was, therefore, on the basis that no synthetic proposition could be known a priori, and it was thus concomitant with the rejection of everything that could not be established as scientific, empirical fact. While mathematics still had meaning in that we had chosen to use the symbols in that particular way, the meaning was vacuous in the Humean sense of the term, and the entire category of knowledge *qua* knowledge was, for the positivists, composed of empirical fact. Metaphysical speculation, as unprovable claims, was relegated to unsolvable mysteries and not, therefore, deserving of curiosity or investigation. The a priori certainly fell into that category. But the problem was not merely that the metaphysicians were doomed to failure – it was that their sentences could not be parsed. As A.J. Ayer stated it, "Our charge against the metaphysician is not that he attempts to employ the understanding in a field where it cannot profitably venture, but that he produces sentences which fail to conform to the conditions under which alone a sentence can be literally significant."[3] Goodman adopts two related points from this discussion: the Humean notion of mathematics as meaningful because it

[3] Alfred Jules Ayer, *Language, Truth and Logic* (Dover, 1952), 35.

is an agreed-upon use of constructed symbols is exactly Goodman's argument for the validity of semantics, and secondly, he adopts a positivist analysis of language that gives the conditions that make a sentence meaningful as those conditions which confirm the truth or falsity of that sentence, for those are also the parameters of a semantic analysis.[4]

Also deemed as unconfirmable as metaphysics were ethics and aesthetics, where the latter was conceived as statements about beauty, and, since they could not be verified, they were, therefore, not objects of study. To again quote A.J. Ayer, "For, since the expression of a value judgment is not a proposition, the question of truth or falsehood does not here arise."[5] For the positivists, all "value" statements were statements only about how we felt about the object in question; a position Goodman, of course, was to challenge within the semantic analysis of art. For the positivists and many of the analytic philosophers who followed, both aesthetics and ethics, relegated to the small domain of "value" philosophy, could not share in the realm of knowledge since they were, by definition, not verifiable. As we shall see in Part III, Goodman's radical claim that aesthetics was a part of epistemology must be seen in contrast to the general trend of the time that forbade such a doctrine.

The final point that needs to be made regarding positivism is its continuation of Russell's program that believed in the possibility of a piecemeal analysis e.g., the basis of analytic philosophy.[6] Reacting against the Hegelian excesses fueled by a methodology that demanded a complete understanding of the whole fabric of reality before any understanding of a part could be claimed, Russell and the positivists who followed him were adamant that precision could only be gained in a careful analysis, and that could only be accomplished by looking very closely at a particular problem. Wittgenstein's *Tractatus* becomes important at this point, for the logical atomism argued therein was thought to be a carefully ascertained analysis of the basic component parts, thereby leading to the accreted structure of the whole, which would likewise be logically and clearly understood. Obviously, this is the methodology adopted by Goodman in *The Structure of Appearance.*

In conclusion, the criticism of metaphysics in general and of any ontological commitment that might urge one in the direction of intentional meanings was a major tenet of positivism, and was a sustained reaction against idealism and its metaphysical excesses. There was strong support for an ontology that committed itself to only what was directly knowable. Although the positivists initially adopted the phenomenalism of Carnap's *Aufbau* that dovetailed both with a Humean analysis of the immediate unit of experience, (which he had called "impressions"), and also with Russell's sense-data analysis, some positivists were to move into physicalism – adopting the language of physics and hence the reality of objects – as defined by Carnap after he forsook the *Aufbau*, and by Neurath. But in either view,

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[4] This is discussed more fully in Chapter 4.4.

[5] Ibid., 22.

[6] William Barrett and Henry D. Aiken (eds.), *Philosophy in the Twentieth Century: An Anthology* Vol. 1–4. (Random House, 1962), Vol. 3, 20.

the move was emphatically away from metaphysics, idealism, and anything that seemed to insinuate abstract objects and universals. The positivists' verification principle, stated as, "The meaning of a statement is the method of its verification", has the obvious role in denouncing metaphysical claims e.g., if there is no method of verification, then there is no meaning. This is reminiscent of Hume's dictum that, "When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, from what impression is that supposed idea derived? And if it be impossible to assign any, this will serve to confirm our suspicion."[7] We shall now examine the positivists' phenomenalism and its ability to give a clear epistemology, and Goodman's position regarding that kind of empiricism.

4.3 Goodman Rejects the Positivists' Sense Data and Their Phenomenal Reality

Since Goodman's *The Structure of Appearance* is phenomenal – seen particularly in the role of qualia – it might provisionally be seen as an attempt to incorporate the sense-data theory of Russell and the logical positivists with the atomism and the logical/empirical distinctions of Wittgenstein's *Tractatus* into a rigorous analysis of language and immediate experience consistent with scientific principles. (We will ultimately see that this view is provisional only, for Goodman's phenomenalism is in fact like neither.) If the phenomenal unit comprises all the content of the immediate experience and serves as an epistemological reduction of predicates to their atomic form, then the phenomenal unit is as simple and immediate as is possible to conceive. Goodman was clearly trying to get to the very basic unit in his constructionalism, not unlike Wittgenstein's *Tractatus*. But it is important to note his historical positioning vis-à-vis the other philosophical debates of that time: his phenomenalism in *The Structure of Appearance*, first published in 1951, is a reworking of his dissertation, finished in 1941. The latter date is five or so years after Carnap had renounced the *Aufbau* and Neurath, Hempel, and others were arguing for physicalism. In other words, Goodman was not sufficiently swayed by Carnap or the other positivists who chose physicalism.

The question is why, especially as there are problems with phenomenalism. The most obvious difficulty is that since there is a different sensum for every different view of a material object, the phenomenalist language makes it difficult to articulate reality without recourse to object-language. Even if this problem is overcome, there is a further difficulty, namely, that since phenomenalism gives us experienced reality in nucleic bits that are experienced privately by the perceiver, it does present the additional problem of confirmation and intersubjective agreement. In other words, I now am confronted with two problems: (1) how can I guarantee that my previous

[7] David Hume, *An Inquiry Concerning Human Understanding*, Eric Steinberg (ed.), 2nd ed. (Hackett, 1993), 13.

experience was identical to this present experience, and (2) how do I know that my phenomenal experience is like yours? We will see in Sections 5.6 and 6.3, how Goodman attempts to resolve those problems. But before I analyze his solution to these two problems, it is necessary to examine a more pertinent reason why he might not have been persuaded by the physicalists, and then we will be in the position to understand how his phenomenalism is different from the positivists.

4.4 Goodman Rejects the Positivists' "The Given"

The positivists argued that all empirical truths must ultimately be definable ostensively, and that these basic experiences form the foundation for other claims about the world. Reference to immediate experience, called "the given", was often provided in phenomenalist terms, and as Ayer states, "Accordingly we define a sense-content not as the object, but as a part of a sense-experience."[8] But if it is part of "sense-experience" what exactly does that mean? Does it mean that it is part of my sensing? "The given" was defined as that on which statements about experience were able to be verified, but the "given" had an odd way of evaporating upon close examination. If it is part of the sense experience, similar to how Hume had conceived it, it seemed unable to cohere as an external unit, such that the empirical fact dissolved into atomic yet private sense data that were part of the perceiver. So the important dilemma presented itself: where exactly was the easily grasped reality, and was it still external? The mind-independent reality was clearly becoming more mind-dependent than what an anti-idealist/empiricist would want. If "the given" only provides information about my immediate sense data, then there is no inter-subjective comparison of that data possible – as I cannot know, in a first-person sort of way, of what another person's phenomenal experience consists. The difficulties of committing to an objective reality then become insurmountable.

As Moritz Schlick so succinctly stated the problem at the time:

> As a question about the existence of the 'external' world, the problem can make its appearance only through drawing a distinction of some kind between inner and outer, and this happens inasmuch and insofar as the given is regarded as a 'content' of consciousness, as belonging to a subject (or several) to whom it is given. The immediate data are thereby credited with a conscious character, the character of presentations or ideas; and the proposition in question would then assert that all reality possesses this character: not being outside consciousness. But this is nothing else but the basic principle of meta-physical idealism. If the philosopher thinks he can speak only of what is given to himself, we are confronted with a solipsistic metaphysics; but if he thinks he may assume that the given is distributed to many subjects, we then have an idealism of Berkeleyan type.[9]

That Goodman rejected "the given" is clear both from the position he adopted and from the introduction to his Structure of Appearance, cited above in Chapter 4.1.

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[8] Alfred Jules Ayer, *Language, Truth and Logic* (Dover, 1952), 122.

[9] Moritz Schlick, *Philosophical Papers*, (eds.) Henk L. Mulder and Barbara F. B. van de Velde-Schlick, (trans.) Peter Heath (Reidel, 1979), 262.

Since the positivists' phenomenal "given" remained private, some positivists such as Neurath and Carnap argued that the solution was to adopt a language that can be translated into statements about the body, so that the sense datum "green" would be described as "the body of Carnap is in a state of green-seeing", a solution seen as consistent with the demands of physical science. But an explication of every sensory experience in the language of physical science is not automatically granted. The difficulty with this position is that it had to be seen as promissory only, for though it might be the case that science will someday be able to reduce all experience to physical explanations, that obviously had not yet been achieved. (Nor, we might add, has it been achieved in current times.) Mental concepts can seem ineluctably non-physical, and the claim that they won't always be so is one taken only on faith.

By the time Goodman was to finish his *The Structure of Appearance* all of these debates were widely known. The logical positivists' movement began breaking up in the mid-thirties and was completely disbanded by 1938. Goodman's refusal to claim full affiliation with either camp makes perfect sense given the problems evident in both, and the phenomenalism he did adopt must be seen in light of his emphasis on public language and its function in the referential role of semantics, for that is clearly his method for avoiding the privatization of sense-data problems found in the positivists' version of phenomenalism. This is an important point: the motive to abandon the phenomenalism of early logical positivism in favor of physicalism was in order to establish the public neutral object that could guarantee intersubjective agreement. But the physicalist solution failed since it presupposed a scientific reductionism that had not yet happened. Goodman appealed instead to the intersubjective agreement provided for in semantics, and tied his phenomenalism to that. In other words, Goodman's phenomenalism, which might initially appear similar to Russell's and the positivists' is not the phenomenalism of either Russell or the positivists.[10]

4.5 Goodman Adopts Semantics as Reference, not Meaning

The notions of naming, predicating and truth satisfaction have in common the fact that they are semantic relations that relate words to objects in the world. A statement is true if the individual words in it are correctly descriptive of objects and if the relations between the words are correctly descriptive of relations in the world. It refers. The usual semantic view is a variation of the very old view typically referred to as the correspondence theory: a sentence is true when it corresponds to reality. In correspondence theory, our knowledge is based on a primary group of sentences that are directly confirmable through either experience or ostension. The empiricist argues that this privileged class of sentences has the important place that it has because these sentences are intimately connected with the foundations of our knowledge. It

[10] Cf. discussion in the beginning of Chapter 4.3. In order to understand how Goodman's phenomenalism differs from others, it is important to see how reference and semantics play a role in his theories. This will be more thoroughly discussed in Chapter 6.

is with these sentences that the idea of a truth condition is given epistemological content.

But Goodman does not claim empiricism or correspondence, but rather coherence within a relativist framework. A word does not correctly describe an object because it truly corresponds to that object, but because we have deemed it so and because it coheres with the rest of the body of knowledge; but we could have defined it otherwise. (This is the constructionalism, which is more fully discussed in Chapter 5.) On this reading there is no causal relation between the object and my understanding of the word such that my perception ascertains the natural delineation of the object and links that perception to the assigned name. On a causal account, my perception could not be otherwise than it is; our ideas really do correspond to the things that cause the perceptions. But Goodman does not argue that our perception of the object is caused by the object but that our perception is a constructed one; it is still the case that that word holds true for the object – its non-natural status does not obviate those truth conditions. The difficulty that Hume created with his truncated causal account whereby there was no distinction between the sensation and the perception (a difficulty re-experienced by the early positivists) is somewhat obviated in Goodman's account since, even though the phenomenal sensation is a biologically natural one, the perception is a constructed one.

As has been previously stated, Goodman's semantic account was not his alone and was instead part of a general effort to give an extensional account. Therefore to accept a semantic theory is to assert the empirical claim that truth is found within the constraints of logically replaceable terms that reference objects that can be objectively verified. Despite Goodman's denial that he is an empiricist, he still asserts the first part of this claim e.g., that truth is found within the constraints of logically replaceable terms that reference objects. As Catherine Z. Elgin has explained, Goodman believed that the answer to questions of knowledge was in giving an analysis of the relationship between "a language (or, more broadly, a symbol system) and its objects".[11] Language is bound by truth and by logic. And we know the world by means of reference, not by meaning – for truth conditions will be undermined by the existence of intensional contexts for which we possess no rules of replacement. If semantics is the view that language functions symbolically by referring to the objects for which the word stands, it will be made clear in Part III how a semantic interpretation of aesthetics is also taking the reference fork and leaving the meaning fork for others.

4.6 Goodman Adopts the Rejection of the Analytic

The final instance of a limitation on the possibilities available to Goodman must be Quine's rejection of the analytic. The positivists' rejection of the Kantian synthetic a priori was trumped with Quine's rejection of the analytic. In "Two Dogmas of

[11] Catherine Z. Elgin, *With Reference to Reference* (Hackett, 1983), 5.

Empiricism", he annuls the distinction between the two categories of synthetic and analytic by arguing that all knowledge is empirical and, hence, revisable. The pragmatic view that all knowledge is science and that we may adapt our explanations and our experience in order to construct congruence between the theory and the practice is a view that had great impact on twentieth-century analytic thought in general as well as on Nelson Goodman in particular. Logic is made by us, as is language. This relativizes knowledge by arguing that all "fact" is contingent, and that therefore we are free to construct the facts as they best suit our needs. As Goodman stated,

> Indeed I have argued in *Ways of Worldmaking* and elsewhere that the forms and the laws in our worlds do not lie there ready-made to be discovered but are imposed by world-versions we contrive – in the sciences, the arts, perception, and everyday practice.. . .[it] is a question not of whether nature is lawful but of what generalizations we formulate and dignify as laws. The arts and sciences are no more mirrors held up to nature than nature is a mirror held up to the arts and sciences. And the reflections are many and diverse.[12]

In summary, the ways in which Goodman's thought agrees with the tenets of positivism are: reality cannot be known through metaphysical generalizations; reality is not required to be known in its entirety and can only be understood if it is first understood piecemeal; reality is composed of basic building blocks; and philosophy is not about "the world" but about the language through which we see the world, and the latter is primarily ascertained through science. He deviates from positivism in that, trying to avoid their problems with "the given", he maintains that language does not correspond to reality in a naturalistic way and, hence, that truth conditions cannot be established by ascertaining correct causal conditions, though we can – with the use of an agreed upon symbolic system – make meaningful sentences. And, of course, he deviates from the positivists in his analysis of art. Having provided an exegesis of what Goodman was trying to avoid, it is now possible to examine in detail Goodman's epistemology.

[12] Nelson Goodman, *Of Mind and Other Matters* (Harvard University Press, 1984), 21.