

## ON (VIRTUOUS?) CIRCLES OF CONCEPTS IN GOODMAN -- AND QUINE

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'Fact, Fiction and Forecast' <sup>1</sup> was the second book published by Nelson Goodman, his first being the constructive critique of Carnap and comparison of Physicalistic with Phenomenalistic 'systems' entitled 'The Structure of Appearance'.<sup>2</sup> However, the first chapter of FFF -- "The Problem of Counter-factual Conditionals" -- substantially pre-dates this first book. In any case, by the time the lectures which formed the basis for the second, third and fourth chapters of FFF had been revised for the publication of that book, Goodman already had a reputation as a skilled logician, and a yet more skilled philosopher of logic and of problems from logical positivists (particularly from "The problem of counterfactual conditionals", a paper little less 'productive' than Quine's "Two dogmas of Empiricism",<sup>3</sup> and to which FFF was, for some, as much an awaited sequel as 'Word and Object' was to "Two Dogmas...").

The bulk of Goodman's FFF is comprised then of four chapters, beginning with one of earlier provenance than the other three on the "Predicament", as Goodman terms it, of the philosophical status of counter-factual conditionals. It is this predicament that Goodman alludes to in the final paragraph of 'The Structure of Appearance',<sup>4</sup> as he draws

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<sup>1</sup> Cambridge, Mass.: Harvard U.Press, 1983 (4th ed.; 1st ed. 1954); henceforth "FFF".

<sup>2</sup> Cambridge, Mass.: Harvard U. Press, 1951.

<sup>3</sup> In his *From a logical point of view* (Cambridge, MA: Harvard, 1953).

<sup>4</sup>*Ibid.*, p.306.

to a close his discussion of " 'the problem of accounting for the physical world on a phenomenalist basis' ":

"What does seem to be fairly clear is that the problem is intimately connected with the problems of distinguishing between laws and nonlaws, of interpreting counterfactual conditionals, and of codifying the principles of confirmation. In recent investigations of these problems some very discouraging difficulties have arisen."

In "The Problem of counterfactual conditionals",<sup>5</sup> Goodman explains the "Predicament" in terms that effectively *preview* the second, the third, and even the fourth chapter of FFF. He makes comprehensible that and why he wishes to present in clear language, language that he and we understand, various inter-related unclear notions, central amongst which is that of a "counterfactual". This is arguably the basic motivation of FFF -- to explicate the circle of concepts around "counterfactual".

The problem is structurally analogous to that identified by Quine in "Two Dogmas...";<sup>6</sup> in fact, it is arguably interestingly more akin to Quine's than is generally recognised.<sup>7</sup> Quine argued that there was a

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<sup>5</sup> First published in *The Journal of Philosophy* 44 (1947),113-128. Compare also probably the very first published statement of the problem, Goodman's "A Query on Confirmation" (*J.Phil.*13 ('46), 383-5).

<sup>6</sup> Op.cit. .

<sup>7</sup> It perhaps *was* formerly recognised, but memory on this point has strangely faded. In support of the former point, compare M.White's "The Analytic and the Synthetic" (neatly referred to on p.60 of FFF), which evinces recognition not only of the allied nature of the philosophical endeavours of White, Quine and Goodman *contra* the dichotomy, but also explicitly associates the question of how analyticity might possibly be defended with the difficulty of explicating the counter-to-fact conditional. H.S.Thayer, on p.525 of his *Meaning and Action* (Indianapolis: Bobbs-Merrill, 1968), also notes the connection between the concepts of "*possibility*" and "*analyticity*", both of which seemed essential to buttress the conservative semi-Pragmatism of C.I.Lewis, but neither of which could easily be explained in other terms to the satisfaction of (*respectively*) Goodman and Quine, in particular. In a fuller presentation of the Quine/Goodman 'circles' than is possible within the scope of the present paper, we should counterpose Grice's view (expressed on p.203f. of "In defence of a dogma" (written jointly with Strawson, 1956; reprinted in Grice's *Ways of Words* (Cambridge, MA: Harvard U.Press, 1989; pp.196-213)) that the only reason for being harder on the family of terms around "analytic" and "synthetic" than on "morally wrong" or "statement" (or, we might add, "law" or "counterfactual"), is that

circle of concepts around "analytic" (*viz.* synonymy, semantical rule, etc.) which were only *mutually* explicable, and which at best *explained* nothing outside of the parameters of a single language which one was holding fixed. His view was that the whole circle of concepts should be jettisoned from the philosopher's repertoire, or at best relativized to a language. This was a deep attack on the presuppositions of Logical Empiricism, as it essentially undercut the Empiricist conception of the *a priori* - namely, the analytic.

Goodman similarly laid out in "The Problem..." the interconnectedness between the concepts *law*, *law-like*, *confirmation*, *counter-factual*, *disposition* and *possibility*. And he can also be read as holding that this circle is only stable and viable if something is held fixed and simply used as it is; in this case, the general linguistic frame and the particular system of confirmation in question.

However, there the tight and interesting parallelism between the 'circles of concepts' of Goodman and Quine ends. As Goodman's book proceeds, he successively problematizes these concepts, but he never -- and particularly not in "The Problem..." -- calls for any of them to be jettisoned. One might suspect that Goodman thought that there was some distinction or conception available which could shore up the circle of concepts.<sup>8</sup> Here is a frank statement of his take on this circle, from the Introduction to the First Edition of FFF:

"The trouble is...that what confronts us is not a single isolated problem but a close-knit family of problems. If we set one of them aside, we usually encounter much the same difficulties when we try to deal with the others. And if we set aside all the problems of dispositions, possibility, scientific law, confirmation and the like, we virtually abandon the philosophy of science."<sup>9</sup>

Notice that Goodman writes of "much the same" difficulties arising in each of these "problems". There is a family of terms yielding what,

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the former are technical terms of philosophy. (In my (Wittgensteinian) view, however, this is a fairly *good* reason.)

<sup>8</sup> For Goodman of course, this was the *topos* of his "theory of projection". For Sellars, it was 'causal mechanism'. And so on.

<sup>9</sup> FFF, p.xviii. Statements by Goodman such as this are of real interest especially in establishing exactly how he was inclined to conceptualise his contribution, his book, at the time of its issuance.

idealising slightly, may in essence be *the same* problem. How did this same problem re-arise each time?

Natural or causal laws are supposed to be distinguished from non-laws by virtue of supporting counterfactuals. But the notion of "law" (particularly "natural law" <sup>10</sup>), like that of "counterfactual", is not a transparent one. Basically, the problem that lay at the roots of FFF was that any attempt to define "counterfactual" or "natural law" in more clearly comprehensible terms turned out to result only in a circular definition: For a set S of statements must be cotenable with a counterfactual's antecedent, A, in order for the counterfactual's truth to be determined, but,

"...in order to determine whether or not a given S is cotenable with A, we have to determine whether or not the counterfactual "If A were true, then S would be true" is itself true... . Thus we find ourselves involved in an infinite regressus or a circle..."<sup>11</sup>

Thus a non-vacuous definition of "counterfactual" cannot be given (non-circularly), and individual counter-factuals can *at best* only be assessed for their truth-value on a practical, case-by-case basis (e.g. by prudent estimation and guesswork; or by 'altering the facts' and observing). Laws are best regarded as 'generalisations' of counterfactuals, according to Goodman,<sup>12</sup> so they face the same problem, and if possible in an even more virulent form, for they face the further question, which appears to impugn their very meaningfulness, of "...how to determine the circumstances under which a statement is acceptable independently of the determination of any given instance. But this question I do not know how to answer."<sup>13</sup>

A couple of clarificatory questions: What exactly is the status of the wish to comprehend clearly (e.g.) counterfactuals? And *are* the notions in the circle of concepts Goodman examined really as opaque as Quine held the circle of concepts *he* undercut to be?

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<sup>10</sup> Cf. the remarks on this topic in F. Nietzsche's *The Will to Power*, (ed. W.Kaufmann; New York: Vintage, 1968), particularly in the sections on "The Mechanistic view of the world" and "Against Causalism".

<sup>11</sup> FFF, p.16.

<sup>12</sup> *Ibid.*, pp.17-18.

<sup>13</sup> *Ibid.*, p.27 (concluding sentence of "The Problem..", FFF I).

Wilfrid Sellars suggested otherwise in his paper "Counterfactuals",<sup>14</sup> and provided some sanguine cautions to any Goodmanian inclined to 'go Quinian' on Goodman's circle of concepts. His suggestions come both from roughly an 'ordinary language' perspective, and (more frequently) with an emphasis on how causality is supposedly understood in the actual practices of scientists, in 'the scientific image' in action. Thus he explained the peculiarity of the counterfactual, "*If M does not light*, then if M were scratched, it would not be dry" (where 'M' is a match), a counterfactual which is (at least superficially) structurally analagous to a case that troubles Goodman, as follows: "...the answer is simply that it is just not the case that by scratching dry matches we *cause* them, provided they do not light, to become wet."<sup>15</sup> Sellars thereby problematized Goodman's emphasis on cotenability as the heart of the problem, and suggested that, in the vast majority of cases, it is the assumed or demonstrated existence of some sort of *causal mechanism* that distinguishes between counterfactuals we (should) accept, and others. This could be the basis of a principled distinction that safeguarded or 'guaranteed' Goodman's family of concepts, while Quine's might indeed all fall down together.

Some sort of emphasis on mechanism is invoked by many of Goodman's commentators, as by critics of Confirmation Theory in general;<sup>16</sup> but it is not clear that the *philosophical* problems raised by Goodman, provided they are (agreed to be) problems *at all*, are soluble in this way. The difficulty in general is as follows: presumably, actual instances of confirmatory evidence will only be of interest to one if one is not as yet at the stage of having clearly established what causal mechanism one takes to be operative in the case in question. For instance, if one had to hand a seemingly absolutely reliable micro-structural analysis of the physico-chemical properties of emeralds which

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<sup>14</sup> From "Counterfactuals, Dispositions and the Causal Modalities", *Minnesota Studies in the Philosophy of Science*, ed. Feigl *et al* (Minneapolis: U. Minnesota Press, 1958), Vol.2, pp.227-48.

<sup>15</sup> *Ibid.*, p.235; all italics in the original. (Sellars's line on Goodman is vitiated in the final paragraph of his paper by his untenable insistence that the "...distinction between *standing conditions*, what is *done* and its result.." is an '*objective*' one; for surely it is a pragmatic one, dependent on our interests in describing certain things as changes and others as unchanging states.)

<sup>16</sup> Compare Harré's writings around this point; and also C. Diamond's "Mr. Goodman on Relevant Conditions and the Counterfactual", *Philosophical Studies* X:3 (April '59), 42-5.

evinced an intimate link between these properties and the reflection of light within a certain narrow wavelength, one presumably would tend *to lose all interest* in the collection of more emeralds as a means of establishing that they were all green; for one would have to hand as good evidence as one could hope for of there being a *mechanism* which ensured their greenness. So an emphasis on causal mechanism apparently begs the question against Goodman's philosophising, for it is only when a causal mechanism *is not at hand*; or when such a mechanism *is itself open to doubt*; or when causal mechanisms "come to an end"; it is (only but precisely) then that the kind of questions Goodman considers are deeply of interest. It is but a short step from this point to the "new riddle of induction".<sup>17</sup> For even where such mechanisms *are* apparently at hand, 'riddles' can always be devised with regard to (our supposed knowledge of) the structure of the samples / the objects, (e.g.) after a future time *t*.

An underlying thought in the above paragraph is whether it should ever have surprised us that the terms of art in Goodman's 'circle of concepts' can apparently not be defined non-circularly; for what terms *can* be so defined? <sup>18</sup> And should we ever have expected that criteria would be available for distinguishing (e.g.) the law-like from the non-law-like purely on the basis of their 'logical form'? But we need not pursue these questions; it suffices for now to recall that such strong expectations were common amongst the Vienna Circle, and at certain moments are arguably mourned or resuscitated, nostalgically, by the Circle's critics and successors. That is, by the likes of Goodman – and even of Quine – himself.

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<sup>17</sup> A question which it is at least potentially questionable that the *famous* "virtuous circle" of FFF (a basis for the notion of "reflective equilibrium"; though the Quinian influence on that notion has been overly overlooked (as a careful perusal of the entries under 'Quine', 'Goodman', and 'reflective equilibrium' in the index to Rawls's *A theory of Justice* (Cambridge: Harvard, 1971) implies; see especially the notes on p.20, p.579, and p.11)) provides an answer to. I address this question in respect of its salience for the philosophical history of philosophy in my "Goodman's Hume" (*Diálogos* 67 (1996)).

<sup>18</sup> Perhaps the surprise is that the circle between the terms is so tight. (N.B. None of this is to deny that some circular definitions *are* useful, if we understand certain terms in them more clearly than others).