

On Nelson Goodman's Assimilation of Literary and Scientific Knowledge

Keith Campbell

Preliminaries

The question from which I begin is: Is there anything characteristic, perhaps even unique, to be learned from works of fiction? Not that gaining knowledge is the be-all and end-all. One can read for many reasons, even many reasons at once, of course - for the plot, or because one takes an interest in the fate of the heroine, or to savour the language, or for a bet, or to lay to rest one's sense of inferiority at being unfamiliar with a cultural icon.

Not all encounters with fiction involve reading. Yet for all their differences, fictions on the page, on the stage, on radio, on film or on CD-ROM, can be considered together when it comes to the question of the kind of knowledge they can furnish. In this context, what holds for reading holds for listening and watching. My use of literary examples is a matter of convenience.

Although it is just one possible approach to take, for someone like myself whose reading is largely in works that one at least hopes are not fictional, it comes naturally to proceed with an eye to what knowledge can be gained. This is not always appropriate - looking for lessons in nonsense verse is unlikely to be rewarding - but it often is, even with fictions. I say 'even' to despatch those philistine and puritanical philosophers, generally of a positivist bent, who are tempted to dismiss everything fictive as a pack of lies.

My topic is fiction rather than literature as a whole. If one takes the whole sweep of literature, embracing the essay, history and even well-written philosophy, the answer to the question of what could be learned from it would be easy and unhelpful: anything and everything that can be put into words.

Just what fictions are, and how they work, are deep and difficult issues. I propose to pass them by. For present purposes, all we need is a working sense of what to count as fictional. Most novels, most of the drama, and a good deal of poetry is included. There are borderline cases - autobiographical lyrics, for example, and cases which depend on one's philosophical views, such as *Paradise Lost*, and *De Rerum Natura*. And there are mixed cases; historical novels, and *The Iliad*. That doesn't matter. Bertrand Russell once claimed that Piccadilly is a fiction, but that doesn't count; he meant it is a logical construction. Russell could tell the difference between London and Casterbridge as well as the rest of us. Fictional fiction is our concern, and there are abundant

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unproblematic cases to consider.

A great deal of fiction has a narrative form and hence a plot, but that is not essential here either. The plot-free imaginative short piece, such as Borges on the fabulous library, and the visionary lyric, such as Edgar Allan Poe's *City in the Sea*, are fictions. The reason that narrative is not essential is that the details of a plot are among the things one most emphatically does *not* learn, in the sense I intend. There being no Mr Pickwick who skates and is sued for breach of promise, we cannot learn these things about him.

Incidental Information

Once the body of work which is to count as fiction has been sufficiently indicated, it becomes at once apparent that a great deal of information, of many different kinds, is to be gleaned from it.

The *Pickwick Papers* could well inform us that in the 1830's the Rochester coach departed on the hour from outside the Swan in Southwark. That is a fairly specific matter, but general knowledge can be imparted just as readily. Growing up in urban New Zealand after the disappearance of horses from the streets, I got my principal information on the vocabulary and techniques of saddlery and bridling for many years from 'How They Brought the Good News from Ghent to Aix'.

By reading Keats you can learn that sedge is an annual of the wetlands. Lewis Carroll can teach you what 'chortle' means. If you read the *Waverley* novels you will discover what English-speaking middlebrows have, this past century and a half, regarded as rattling good yarns. George Eliot can instruct you concerning what was on middle class people's minds in the 1870's, and Arnold Bennett on the furnishing of interiors in Staffordshire a hundred years ago. Ring Lardner rightly claimed that one of his short stories was an example of what can be done with a stub pencil.

Most authors reveal a fair amount about their own character and opinions.

We note all these ways of becoming better informed, only to set them aside. They are beside our point. Such information is incidental, having no essential connection with the fictionality of the works. Our question is: what can be learned from the *fictional* aspect of the making of fictions? More specifically, can anything characteristic be learned in this way, anything not accessible by other means, for example, through the sciences?

Some Alleged Differences Between Scientific, Factual, and Other Knowledge

The contrast between fiction and other modes is not that between *Particular and General*: or between *Quality and Quantity*, since both science and fiction cross those divides. Nor is it a question of *Non-literal and Literal Truth*, since

factual discourse can be metaphorical, analogical, hyperbolic, and ironic. Nor is the difference a matter of *Subject Matter*. Although there may be a tendency for literature, and especially fiction, to dwell on human themes, any contrast between literary and scientific knowledge in terms of a division of subject matter is going to fail. There are human sciences, even sciences of the human psyche. And there are fictions with non-human themes. I don't know if *The Lord of the Rings* will count here, but Blake on tigers, Lawrence on snakes, and Kipling, via M'Andrew, on steam propulsion, should.

It is not quite correct to make the distinction rest on the contrast between *The Possible and the Actual*, nor does it lie in the presence or absence of *A Moral Dimension*. There are factual and fictive works in all of these camps. *Discovery or Creation?* There does seem to be something right in the notion that while the scientist's role is one of discovery, that of the author of fiction is to create. The scientist is subject to the discipline of literal and mundane fact, while the author is liberated from any such responsibility. But the distinction must be handled with care. In the first place, fiction is open to criticism on the grounds that it fails to be faithful to significant matters of truth and reality. One can fault Dostoevsky, for example, for purveying the furphy that without Divine sanction morality disintegrates. And criticize Dylan Thomas for patronizing the illusion that sin is innocent.

In the second place, it is this very contrast, between creation and discovery, that Nelson Goodman challenges.¹ It is to his critique that I now turn.

Goodman's Metaphysical Pluralism

Goodman's philosophy is a modern-day, pluralist, descendent of Kant's transcendental idealism. Its central thesis is the repudiation of the idea of a ready-made world 'out there'. According to Goodman, it is a grievous error to suppose that there is, in actual Reality, a single, unitary, consistent and coherent World, with a nature and structure of its own, waiting for humans to explore (and to be defeated in exploring). That supposition is the Realist illusion.

Although he doesn't put it in so many words, we might put his rejection of the basic Realist stance in this way: In the beginning, the world was without form and void. According to Genesis, God then gave it a sufficient structure and nature that it could be looked upon and seen to be good. According to Kant, there is just a formless noumenal world, an undifferentiated blancmange, until, under the inevitable workings of our minds, humans project their classifying and ordering intuitions and categories onto that world. The result is the phenomenal world of Appearance. According to later thinkers, such as Thomas Kuhn, there may be more than one way to project and impose

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categorizations, and so more than one Apparent, phenomenal world. According to Goodman, we should take one further step, and repudiate the original noumenal world. There is no underlying formless Real. There is no point in aspiring to uncover the true nature of What Is. There are instead many equally valid Reals, the products of the creative organizing power of the human intellect.

It is *our* intellectual work, devising and imposing organizational categories, which gives form. We do this by dividing the world into kinds and classes, according to the similarities and differences we find among its denizens. These likenesses and differences are not objective features of What Is. They are functions of human interests, and capacities, and habits. There are no properties of things "out there". It is up to us to marshal a realm according to its items by descriptions which seem appropriate to us. The world of living things, for example, has mammals in it if but only if it strikes *us* that there are interesting and significant resemblances between whales and raccoons. If size and shape and habitat are all that matter, the world's biology has terrestrials, and aquatic and avian creatures. Where there is no terminology for vertebrate and invertebrate, or warm and cold blooded, or herbivore and carnivore, there is no sense in questions about a real basis for taxonomy. Nothing in Nature forces the issue of what classifications are legitimate.

We cannot assess a description of the world by comparing it to actuality. We have no access to actuality except through one or another conceptualization of it. We assess one description by comparing it with another. This claustrophobic imprisonment, with no escape past words to the Real, is not confined to Goodman. It is present in much recent Continental philosophy.

According to Goodman, even the question of what things are there to be classified is a function of human organizing activity. Are there such things as sunsets? That depends on how we count. If what is happening tonight is a repeat of last night, our world includes an enduring, substantial sun, and the sun rises and sets repeatedly. If tonight's display is judged to be wholly other than what happened last night, we have sunsets in our world, but in place of a substantial sun, a sequence of sunrisings, shinings and settings.

A central thesis in Goodman's philosophy is: Nothing significant about the world is given. There is one way of taking the world according to which the Earth is still. There is another, according to which it follows an elliptical path about the Sun. On yet a third, with a non-standard reference frame, the Earth dances the role of *Petrushka*. Goodman claims that all three are equally legitimate. What makes him such a radical are his further claims that these ways of taking things are incompatible, and so not all true in the same world.

This is not a case of the glass being half full or half empty. It is not even a case of the train receding from the station and the station receding from the

train. It is not a case of a bright speck being a black horse. These can be treated as describing the same situation from different points of view. According to Goodman, there is no overarching point of view from which different reference frames can be combined to yield one consistent truth.

So that, in Goodman's philosophy, since several clashing claims are all equally true, they must be true *in different worlds*. There are as many different worlds as there are coherent and systematic, yet irreconcilable, ways of categorizing, organizing, and hence construing or interpreting, What Is. Goodman goes so far as to claim that there are many different Earths, all equally actual and real, in the different worlds we have made. Hence my labelling of the position as metaphysical pluralism.

A Goodman world is often called a version, to underline its irreducibly creative human component. But the sting is still there - these are not all just versions, some better, some worse, some valueless, of the one given World. And truth is not determined or estimated by how well a version corresponds with absolute facts concerning the Real World. We could never determine any such correspondence, and anyway the absolute facts do not exist.

What this implies is that all human cognitive endeavour, in science or history, in fiction, painting, or music, shares a common character. All these endeavours impose order, and in imposing order they fix an ontology and settle the nature of their world. For example, by settling on a colour vocabulary, we determine which are the right colour terms to apply to any visible object. We could use a colour vocabulary where blue includes indigo, or one in which blue and indigo count as different colours. Our choice will fix whether a bird is to be described as blue, or as indigo, or as both. When that is settled, there is no further issue as to whether the bird is really blue, or really indigo, or both.

Different versions of our world, resting on different categorizations, arise in the pursuit of different purposes. The natural historian develops a taxonomy according to one set of desiderata. A hunter - gatherer may well classify differently, on edibility criteria rather than likeness of form, establishing a different taxonomy. Each of them can be seen to be saying: Look at the realm of animals this way. The ways may not be reconcilable. They are both valid.

Artists do the same. They create works which we should approach as presentations inviting us to see their realm *this way*. The distinction between scientific discovery and artistic creation evaporates. The scientific work will endure so long as it provides an insightful ordering of its realm. The artistic work will be valued so long as it provides an insightful ordering of its realm. There are no mind-independent facts, no ready-made world, to which science, or history, or fiction, need be faithful. What is required is fidelity to the world, or version, which the categorizing and describing activity has itself contributed to create.

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We are used to the idea - metaphorical though it be - that Trollope and Jane Austen and Van Gogh and Rembrandt create worlds for us. We should get used to the idea - not metaphorical but as literal as anything in Goodman - that Darwin and Feynman and Gibbon and even David Attenborough do the same.

All relativisms are gospels of relaxation. This one is no exception. It counsels against striving to sift and sort, to judge and reconcile these various and somewhat incompatible accounts of reality. Lie back and enjoy not just the world's rich variety, but the rich variety of worlds.

In Goodman's philosophy, a distinction does remain between factual and fictive discourse. The distinction resides in whether the names used are presented as denoting items in the realm to which the discourse as a whole is taken to apply. There is something right here. In most fiction, it is the particulars, the people, places, and situations, for which an invented vocabulary is needed. Think of *Barsetshire*. Terms for the protagonists, or for the hospital and the newspaper, will need to be new-minted. But the general terms - for dean and archdeacon, hope, envy and loyalty, horse and carriage, rain and shine - the organizing categories of the novelist's world, carry straight across from history and biography.

Fantasy, myth, and science fiction differ somewhat in this regard. There, we do need new general terms, for orcs, or gorgons, or daleks. So perhaps for Goodman there is more difference between fantasy and myth, on the one hand, and realistic fiction, together with biography and history, on the other, than there is between fiction and history or biography.

From his perspective human thought and knowledge rest on the creative use of sets of categories. Predicates, general terms, are used in descriptions to make, mark, and emphasize similarities and differences among the constituents of the realm to which they are applied. Whether the use of singular terms is denotational or not matters little. It follows that in principle, there is no distinction between what we can learn from fiction, and what from other experiments in world-building. Here is Goodman's assimilation of literary and scientific knowledge.

The Portrait Metaphor

We can understand Goodman as offering us a Portrait metaphor for knowledge of all kinds. We are familiar with the idea that there can be more than one portrait of the same subject. Two portraits can differ markedly, yet both be good portraits. Indeed, they can not only differ, but present incompatible characterizations, and both be good. More yet, they can both be equally good. We feel no need, and indeed want to resist, any tidy-minded attempt to insist we choose between them, and deny validity in one case, or the other, or both.

How can this be? Ironically, the answer tells against Goodman's meta-

physics. Notice that the more interesting the sitter, the wider the range of good portrayals that is open. People can have a rich, multifaceted, often conflicted and paradoxical, nature. It is the very plurality of inner traits, from which we can select, that makes the diversity of portraits possible. It is not that the inner self is nothing in itself but a bare canvas, on which we can project a version. It is inner wealth, not inner impoverishment, that explains the many portraits. Inner complexity means we cannot tell the whole truth. That leaves room for different, yet equally faithful, renderings, each of which tells some part of the truth.

This provides a model for the differing, apparently conflicting, portrayals of our World. Different portraits, at odds with each other, do not imply two sitters, one in each painter's own world. Different portrayals of the World rest on the same phenomenon, an underlying Nature too rich, not too poor, to dictate a single 'taking'.

When we sit down to assess just how much incompatible material we find ourselves equally drawn to affirm, the portrait metaphor is rather sustained than undermined. Work in the sciences yields several different accounts of how things are. But mere difference does not signal any conflict. Marine biology is not at odds with particle physics, or palaeontology, or linguistics, to any significant extent.

There are indefinitely many different ways to approach comprehending the world. All these ways highlight one set of likenesses above others. Goodman is right to point to the range of choices we have in developing taxonomies, and the leeway we have in setting the boundaries of our categories. But this does not imply that classifications are imposed, rather than discovered. All the likenesses and differences we deal in are there to be found in the World. None depend on an organizing human intelligence. A plenitude of real distinctions, and real likenesses, underlies our limited human plurality of versions.

Goodman is also right to point out that there is not only a plurality of versions, but indeed unresolved conflict between rival accounts, even in the sciences. One thinks of the contrast between particle theory and quantum fields. It is only the gospel of relaxation, however, that would lead us to conclude that there is no fact of the matter as to which is more nearly correct.

It is in the human world that apparent conflict among portraits emerges most commonly. Such a complex and conflicted world, which so alters in appearance according to the point of view of the beholder, is just the sort of world we would expect to yield equally attractive opposing depictions.

Fact, Fiction and Explanation

Difference and conflict among world versions does not refute Realism about the world's complex Nature, and so does not support Goodman's metaphysical

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pluralism. The megalomania implicit in claims that Nature has no nature unless humans impart it will I trust have struck you forcibly enough. The anthropocentrism involved is equally striking. It leaves humanity, at the centre of the cosmic drama, as a totally unintelligible given. There are no resources in any variant of transcendental idealism to account for the existence of the human race. For the very categories of cause and effect which are required for that account are supposed to be of our own creation.

This is a spectacular instance of a more general problem. By imposing organization we can, as Goodman so often insists, provide intelligibility, or insight, or a fresh view of things. But this cannot provide any explanation of how things come to be the way they are. Explanation goes beyond categorizing to the forces at work in shaping the categories. The entire dimension of explanation is missing from Goodman's work.

Explanation also provides, in my opinion, our key to the essential difference between the fictional and the factual. It is a matter of aim. In the sciences there is a natural history phase which sets forth a realm displaying at least some rudiments of order. That is How Things Are. Then there is a theoretical phase whose aim is to identify the forces at work which explain the transformations through which that realm passes, including the transformations which account for How Things Come to Be as They Are.

In identifying the forces at work in a given realm, which is at the heart of the explanatory enterprise, the notion of equally good, competing accounts is at its most inappropriate. Either the proposed forces are at work or they are not; this is a fact of the matter which does not depend on how our interests lead us to describe the situation.

In works of fiction, by contrast, this explanatory design is absent. That is inevitable, since we are not presented with a world where explorations can be made into the underlying forces at work. What is presented is not open to experimental investigation. The author of a fiction presents a world to contemplate rather than one to explore.

It might be thought that marking the distinction between fact and fiction by way of explanation provides no proper home for history and biography, since they furnish no natural history to be explained. But history and biography share with the natural and social sciences both the discipline of using only categories which are continually validated in exploration, and a concern with providing an explanation of their perceived facts. Although these explanations do not present deductions from quantitative general laws, they are explanations nevertheless. A successful piece of biographical or historical writing will make plain to the reader how it is, given what we know of the general tendencies of human nature and behaviour, that matters fell out as they did.

Fiction's Distinctive Contribution

With fiction and fact now distinguished, what can fiction contribute? Although I do not claim that this is all that fiction can teach, it nevertheless seems clear to me that one traditional doctrine is correct: from fiction we can gather a sense of human possibilities. Fictions present ways of feeling, of acting, and of living, ranging beyond most people's experience of actual life. Fictions enlarge the range of ways in which we can set ourselves to act and react, and a typical novel or film will present not just one, but a contrasting group of such alternatives. From exposure to such works we can learn to feel, to judge, and to live. Fictions are variant portraits of the forms human sensibility can take.

Memorable works present original alternatives, or present them with peculiar vivacity and force. Formula novels and soaps have their charms, but as they are not presenting anything new in alternative ways of being, they are not instructive, except in the incidental way in which Dick Francis, for example, teaches us about the racing game.

Encouraging the contemplation of alternatives to one's present way of feeling and of life is characteristic, but it is not a monopoly of fiction. Philosophy, especially moral and social philosophizing, anthropology, and the history of exotic times and places can all provide it. Fiction is different in how it goes about the business. The difference is that between showing and telling. The distinguishing mark of the fictive mode of presentation is that it does not consist in a series of statements as to how life can be led. It consists in presenting, in a manner which captures the imagination, specific alternatives, given with enough detail for us to enter into them and get something of a feel for how it would be to live with such a sensibility and approach. In the best fiction alternatives are made to seem much more genuinely live possibilities than with the same alternatives set forth discursively. They reach into the emotional tone of a stance toward life. They can be sufficiently vivid to be literally seductive, which is why censorship is an important issue for fiction, but not for philosophy. Fictions can be effective in moral education where sheerly conceptual thought yields no more than abstract assent, so they can give us actually useable insight into the human condition. Thus philosophers are bound to be fiction's friends.

Note

- 1 N. Goodman, *Ways of Worldmaking*, Indianapolis, 1978. Goodman and C. Z. Elgin, *Reconceptions in Philosophy and Other Arts and Sciences*, London, 1988.

Feeling for People
AND HISTORY OF OLD FEELING RELEVANCE SCIENCE
RELEVANCE SCIENCE
THE PAST

Recessive Gene?
The portrait of the
ENCOUNTER WITH SCIENTIST
little copper man
lived by measuring things
the shiny elbows...
"artistic" - obsessive
by useful... but
the theme of things
unprehensible expro-
was...
paradox of Science -
this to do with War.
Politically ended things
under how people
perceive themselves.

ART: BLUE
SCIENCE: SCAFFOLDING
PART OF THE
SAME THING.
LIVING RELATIONSHIP WITH
PAST - IMPLICIT RELATION-
SHIP - ORGANIC GROWTH.
On the Art you can put
anything on - and people
will believe it -
Run the
Sir Clarence Love joy
Brain-punch theory
Professional Evidence and
Cultural - sort...
The Slush factor -
The Cultural Gap - Does it Matter.

Dawkins's... opinions from
one but himself - Or will
fy - at least Scientists
opinion if needed.

BUT
Scientists stick to their guns
two sets of arguments -
evidence - Homo Erectus
much older than thought
3) Homo Sapiens 200,000 years
back - DNA passed on thru
female - not pulled by man
tripe back to save (out of Africa)
10. 3. 1994

make up to
amplify by
cutting people
out of their depth
they hear found
in stone tools.
science is
really too
oldy -
science fiction
pretells
The Fossil
beer can
Drinker fell
over -
Humon being
fell over
and made
way for Apes

The 2 Cultures are
ONE-CALLED IDEAS!!

A.C. Clarke 1984 The God factor
Incredible & Tragic
Must to be done by joining
ARTS & SCIENCE.

Robyn Williams, distinguished scientific writer and broadcaster, addressed the Society on 'Does the Scientist need the Arts' on 16 March 1994. Sketched by Ulf Kaiser.