

# Resonance Realism

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**ABSTRACT** Key words: resonance, realism, version givenness, correspondence, reality, personal, subsidiary, focal, knowledge, culture, language, Polanyi, Goodman, Torrance.

*Our culture and tradition, including our theories and our language, act as subsidiaries by which we attune to resonances between ourselves as convivial beings and the world. These resonances afford us our senses of reality and illustrate the impossibility of a correspondence theory of truth. We select between theories and versions by learning to sense the deeper and deeper resonances which they evoke in our communal selves.*

## Foreword

The subsidiary-focal structure of tacit knowing is fundamental to Polanyi's thought, and in particular to his *realism*. In this paper I argue that Polanyi saw the entire socio-cultural-linguistic context of humankind as one vast subsidiary *through* which we attain focal awareness of reality, and which we can no more put off than we can shed our skin. Such a view involves an unequivocal rejection of the correspondence theory of truth as completely unintelligible, and demands a reconceptualization of what we mean by realism. For what it is worth, I offer the term *resonance* for this realism, and while I cannot and do not claim that it is to be found in a fully worked-out fashion in Polanyi's writings, I do claim that those writings, seen themselves as clues to the workings of his mind, point clearly in some such direction.

## Argument

Michael Polanyi's realism is one of the most remarkable aspects of his philosophy, but because it was something he took completely for granted, and as such assumed only subsidiary status in most of his written work, it constitutes such an implicit and therefore tacit component in his philosophy that it has occasioned much less comment than it deserves. Eschewing the subject-object dichotomies that plagued philosophy from Descartes to Kant, he allows the intrinsic dynamic of active life processes to provide the chief criterion by which we judge the realism of our beliefs. Such a dynamic sets up resonances in us both as individuals and, rather more significantly, as communities, resonances which indicate the extent of our contact with reality through the depths of the convictions they induce. The resonant theories about the world that we should value are those we should credit as framing the facts we should affirm, and vice versa.

We make sense of experience by relying on clues of which we are often aware only as pointers to their hidden meaning; this meaning is an aspect of a reality which as such can yet reveal itself in an indeterminate range of future discoveries. This is, in fact, my definition of external reality: reality is something that attracts our attention by clues which harass and beguile our minds into getting ever closer to it, and which, since it owes this attractive power to its independent existence, can always

manifest itself in still unexpected ways. If we have grasped a true and deep-seated aspect of reality, then its future manifestations will be unexpected confirmations of our present knowledge of it.<sup>1</sup>

Polanyi was not afraid to extend this notion of reality to realms often regarded as unreal or subjective:

[A]s we move to a deeper, more comprehensive, understanding of a human being, we tend to pass from more tangible particulars to increasingly intangible entities: to entities which are (partly for this reason) more real: more real, that is, in terms of my definition of reality, as likely to show up in a wider range of indefinite future manifestations.<sup>2</sup>

The essence of Polanyi's conception of reality lies in the faith in it that justifies our submission to it as a source of unlimited richness, and our consequent willingness to identify the richness of our conceptualizations with the richness of the reality that they arise from. We specifically make no attempt to move outside of our embodied selves to establish the credentials of our concepts according to a correspondence theory of truth; we allow the richness of those concepts themselves, as measured by the resonances they evoke from the world and in our own minds, to be their authentication.

It is for this reason that Polanyi both is and is not close to Richard Rorty: close in the sense that with Rorty, Polanyi fears and seeks to avoid the death of incommensurable discourse by preserving newness and fruitfulness in all conversation; not close in the sense that far from cutting the link between our conversation and reality, Polanyi wishes to tie it ever tighter by insisting upon the faith and trust we must have in reality as a source of regenerating information.

As I have indicated elsewhere, Rorty's programme is doomed for just the reasons that the Second Law of Thermodynamics dooms any closed system: by insulating itself from the boundary-crossing information permitted by open systems that is the source of renewal, conversation cannot but end up as commensurable and normal.<sup>3</sup> It is as if Rorty, unable to reconcile the demand for realism with the critique of realism afforded by modern philosophy, resolves the ensuing dilemma by taking the fateful step beyond respect for reality.<sup>4</sup>

It is not clear that Polanyi appreciated how close he had come to a resolution of the persistent problem of realism. To avoid association with many other terms that have been used to describe other responses to the problem, I shall call the view implicit in his work resonance realism. This term reflects the way the theory:

- does not attempt to achieve a correspondence between theory (language) and reality, for such a quest is hopeless;
- does not rest content with a conventionalist coherence, despite insisting upon rigorous internal coherence, for that is too close to the kind of closure Rorty allows himself to be drawn into;
- does not attempt to avoid the constraints imposed by the successes of science, as many have done by espousing anti-scientific positions;
- does not adopt a passive philosophy of perception or evolution as is implicit in a Lorenz-Popper evolutionary epistemology, but draws upon the theory of active perception advanced by J.J. Gibson and followed up by, *inter alia*, Rom Harré<sup>5</sup>;
- does not require an absolutist view of cultural history or progress;
- does not require a foundationalist or a transcendentalist stance;
- does not involve relativism of truth;

- does not rely upon a particular formalism, whether in mathematical or linguistic terms, and therefore admits incorporation of Polanyi's account of tacit knowing by which subsidiaries may be focused upon totalities to which they are essentially alien (more on this in a moment);
- rejects any sense of the absoluteness of the given while leaving room for a sense of the rightness of what we regard as the given;
- affords an opportunity to perform comparisons between more or less satisfactory formalisms and therefore offers us a way by which to compare the adequacies of versions in Nelson Goodman's sense;
- leaves room for a plurality of rationalities.

The essential point about resonance realism, as the name suggests, is that it places the central criterion of our contact with reality on the boundary between the constructed world of human sense, culture and language and the discovered world "out there" of which we can have no direct unmediated knowledge. That criterion was that to which Polanyi drew attention in the first quotation given above, that the richness of the external world, which has the capacity to draw us beyond our current sense of completion and adequacy to new imagination and new depth, imparts a sense of the inadequacies of current theories and ideas by resonating with our enquiries in a way that suggests the further tuning and retuning that will improve that resonance. A correct theory makes us feel at one with the world, but the limitations of our theories imply that we shall only ever feel partially at one. There are always corners and untidy ends that do not find an easy resting-place in our theories, and which we seek to incorporate in a natural way.

I have spoken here of "theories", but I have in mind everything from the common-or-garden way in which we find our way round our own house and in so doing arrive at a sense of its external reality, to the most advanced physics and biology in which we tinker with the fundamentals of the universe and life. When we "hit the mark" something comes back to us, an echo, and we tune our theories by searching for resonances with the world that sharpen and increase the volume of that echo. It is this that gives us our sense of reality, of being on the track of the real.

In resonance realism, theory and language remain instrumental and to an extent arbitrary, as the tuning-fork remains instrumental. We do not pretend--at least, we should not pretend--that the tuning-fork in some sense "corresponds" with that with which it resonates; on the contrary, we know that it bears no essential resemblance to it, only that it evokes an echo which tells us something about the intrinsic nature of the world.

While we do not have genuine knowledge anywhere apart from a complex situation, or apart from subjective experiences and intellectual or verbal articulation, nevertheless it is through these that we perceive the objective reality - logic and language should be used with scientific instrumentality and therefore used critically, but they ought to be transparent media through which we apprehend the objectively given reality beyond subjective experience and its articulation in speech.<sup>6</sup>

This is not mere conventionalist relativism, of course, which denies that there is any sense of "better" or "worse" about our theories and languages, for the resonances themselves permit us to select between theories (although it is by no means certain that we will never need to back-track to make further progress). What resonance realism requires is the essential involvement of the user of the theory in the process of using it, i.e., the sense in which we know what we are doing and are in this wise employing a skill as we investigate the world.

Resonance embraces other important aspects of Polanyi's wider philosophy: the intimations of fruitfulness that a good theory must exude; the conceptual wholeness that a good theory must display; the inherent sense of rightness that a good theory must engender.

The kinds of realism adopted by many scientists and theologians do not take adequate account of philosophical criticism of realism, seeming always to be based upon some more or less obvious kind of correspondence principle which can be detected in their persistent references to comparisons that must be made between theories and reality<sup>7</sup>. Resonance realism acknowledges and incorporates the insight of modern philosophy that such comparisons cannot be performed because they presuppose that we can somehow look "around" or "behind" our theories from some kind of neutral ground that is not itself hopelessly coloured by further theories and constructions. Instead, resonance realism insists that we test the adequacy of all theory through the total panoply of theories that constitutes our culture, our world-orientation, our collective mind. It is this that makes "resonance" a peculiarly appropriate term, for resonance is something we can only feel while still being inside the theory, not something we can assess while standing outside or beyond it.

However, to make too much of the way in which the world resonates to our theories, as if the world itself questions us actively and dynamically, and to stress the givenness of the world which we know, as Torrance does repeatedly in *Theological Science*, is to place insufficient emphasis upon the contingency of both language and theory on culture and history. Michael Polanyi resolved this tension in his theory of knowing by allowing not only for the arbitrariness of our language and theory and for the finality of the one reality of the world but also for a post-foundationalist and post-transcendentalist dynamic account of knowing such as Kierkegaard anticipated in his notion of kinetic thinking, i.e., a thinking that moves along with that which is known and is transformed by it in such a way as to be kept permanently attuned to it.<sup>8</sup> It is this dynamic thinking that lies at the centre of the post-critical thinking advocated here.

The key to understanding this dilemma in Torrance's work is his negative attitude to constructive elements in post-modern thinking, which he sees as fundamental betrayals of the faithfulness of our knowing to the known. Were all construction guilty in this respect (i.e., were no construction capable of avoiding exactly the kind of renunciation and betrayal of reality we find in Rorty), he would be right, but it is not. The givenness of the world does not and cannot dictate the givenness of our knowing of the world because our knowing is always by means of the contingent language and theory of a particular culture and history in a particular world-line, a language, theory, culture and history that we have constructed.

What is more, we construct those things using bodies that themselves exist by virtue of an evolutionary history itself contingently constructed out of the raw material of the world. Therefore, of necessity, the constructed must act as the subsidiary through which and by the sole means of which we come to focal knowledge of reality by sending out and receiving back signals which to a greater or lesser degree resonate with that reality. Were this not so we would need a correct language or formalism before we could attain knowledge, whereas we know that we are skilled at compensating for the deficiencies of our language and formalism and that their refinement often follows acquisition of new insights.

Unfortunately, Polanyi may be responsible for suggesting that there is some essential and therefore necessary connection between subsidiary and focal elements in tacit knowing by virtue of his own favourite analogy of the blind

man's stick in the palm of the hand. Moreover, he may have failed to press home his vitally important insight into the nature of apprenticeship and skill-acquisition to the level of our apprenticeship in learning how to use our own bodies, languages and theories - especially our bodies. We dwell in our bodies in such a way that, despite their differences from the reality which we come to know through them - i.e., despite the fact that they as subsidiaries bear no intrinsic relationship to the focally known world--we acquire the skills needed to perform the tacit integrations required to test and assess the resonances afforded us by the world as it reflects its nature back to us. By extension, we can use constructed languages and theories--indeed, entire histories and cultures which we have constructed - to acquire understanding of that which is not in this same sense constructed (i.e., not part of what man has constructed and is in this sense "given"), and to which--in a formal sense--those constructions are alien.

The ambiguity of the notion of givenness, as a means of referring to the "objective reality" of the external world, leads to considerable philosophical and theological confusion.<sup>9</sup> The term can easily amount to an attempt to short-circuit or circumnavigate the personal coefficient in knowing, the personal appraisal by which we find ourselves willing and able to affirm the nature of reality as an act of total personal conviction. In other words, whether, to use a theological example, Jesus Christ is the Incarnate Word or not, I can have no access to him as such without an act of personal assessment leading to such an affirmation.

[W]e can only "convince" others of the truth of our existence-statements if we can get them to see or hear the reality they refer to as we see or hear it. It can never be forced upon them. They must be brought to share our intuition of the object given. That does not mean that by describing or explaining to others our intuition we can induce them to have a similar experience, for no act of knowledge is explainable from the side of the knowing subject (i.e., psychologically) but only from the side of the object known, for true knowledge arises in proportion as the subject allows his knowing to be determined by the nature of the object before him.<sup>10</sup>

It is the essential role of personal engagement and personal appraisal in all knowing, and the personal participation in a community of enquiry which makes that appraisal possible, that makes the notions of "givenness" or "self-authentication" so inappropriate. The Lordship of Jesus is in the same category as – although on a different level of importance and significance from – any scientific theory, or any everyday assessment such as "there is a waste-paper bin in the corner", or anything else we claim as human beings to know. The seamlessness of the garment of human knowing that requires elimination of the distinction between fact and value, science and theology, truth and opinion, objective and subjective, must be carried through even in this most solemn and significant matter.

The main reason for stressing this series of points is that claims about the "self-authenticating" nature of certain beliefs are counter-productive when it comes to the evangelical mission of the Church, for they lead to a frame of mind in which we expect to be convinced without having to do any work, without, that is, taking account of the need for, say, the possibility of the Lordship of Jesus to be first constructed in our minds in order that those minds might be directed to him as a significant figure. Jesus no more jumps out of history and into our minds than do theories about W and Z particles. On the contrary, we first have to learn about them, test them, feel the resonances we receive from them, and then find ourselves able to reaffirm them through an act of personal judgement. Indeed, the theological task is the construction of accounts which will help to construct those possibilities more successfully and so lead more people to test them, sense their resonance, and hence see the importance of Jesus. Christian evangelical theology is

not about persuading people that Jesus is Lord, but about establishing an intellectual environment in which those people will be persuaded to attend to the person of Jesus within the community of faith and so be persuaded by him. Theologians need to be more sensitive to the fact that the confession “Jesus Christ is the Incarnate Word” may for many come at the end of a long process of education and exploration, not at the beginning, rather as an appreciation of the W and Z particles comes at the end rather than the beginning of a journey into particle physics. We should no more insist that neophytes start from the “self-authenticating” Incarnation of the Word than that young physicists should begin from the most demanding results of theoretical physics.

Attempts to erase fact/value/opinion distinctions tend to founder on the palpable successes of empirical science because empirical science is viewed from a perspective governed by the correspondence theory of truth, the notion of a ready-made world (givenness), and the belief that experiments disclose raw, self-authenticating facts which verify theories. Each of these components is untenable, and it is one of the great achievements of modern philosophy that we can now see this to be so: nothing like the correspondence theory of truth is tenable because there is nowhere to stand by which to assess the adequacy of a “correspondence”; nothing like a ready-made (given) world can be known because everything we know is known through the constructed contingent media of language, theory, history, culture; nothing like raw self-authenticating facts are disclosed by experiments because data only become facts when interpreted in the light of theories which authenticate them.

To realize this is to be enabled to see empirical science as just one more very particular aspect of the life process by which we “sound out” the adequacy of our theories by searching for resonance. Nelson Goodman calls something like this “fit”.

Briefly, then, truth of statements and rightness of descriptions, representations, exemplifications, expressions - of design, drawing, diction, rhythm - is primarily a matter of fit: fit to what is referred to in one way or another, or to other renderings, or to modes and manners of organization. The differences between fitting a version to a world, a world to a version, and a version together or to other versions fade when the role of versions in making the worlds they fit is recognized. And knowing or understanding is seen as ranging beyond the acquiring of true beliefs to the discovering and devising of fit of all sorts.<sup>11</sup>

Goodman erases the fact/value/opinion distinction almost exactly as Polanyi does, by perceiving that “fitting a version to a world” and “fitting the world to a version” and “fitting versions together” and “fitting versions to other versions” become indistinguishable once we understand that the versions we construct and the world in which we live are indistinguishable in any final and absolute sense not because there is no world beyond our versions, but because it is a world that cannot but be known through versions or remain forever unknown. This is to grasp one horn of Kant’s fundamental dilemma over things-in-themselves and things-for-us by denying, in effect, that the notion of a “thing-in-itself” is coherent in the absence of a version. There is, let it be stressed, a world beyond our versions, but it cannot be conceived to consist of “things” in any intelligible sense of the word.<sup>12</sup> One might just as well rest content with “the unknowable”, or Rom Harré’s delightful “glub.”<sup>13</sup>

The following way of expressing essentially the same point may serve to fend off some of the opposition that this notion of the “unknowable beyond” usually occasions:

To be a realist in some version-free sense one needs to suppose that

it is possible to describe something  
as it is  
when it is not being described;

or that

it is possible to know something  
as it is  
when it is not being known.

Inasmuch as it makes sense to talk about the unconceptualized world, we must mean the world as it is known by God, and therefore the world as it can never be known by humanity. In the Incarnation we have to deal with God becoming man in a way that involves him coming to know the world through the constructed contingent media by which all men know it. The need to conceive of God in some sense emptying himself of knowledge in becoming man as kenotic Christologies require disappears on this reading - in this version - for God comes to know the world as he had formerly not known it. Everything Jesus learns as man - from conception to the grave - he learns in the same way that each man and woman must learn it, through the media of constructed culture, history, language and theory, the imperfect instruments with and through which we must struggle to live our lives. This eradicates any sense of docetism in Christology while preserving in the fullest sense the *vere deus* and *vere homo* of Jesus. It makes abundant sense of that otherwise puzzling allusion in Athanasius<sup>14</sup> to the Word taking a body so that he could feel pain and know death, since pain and death are themselves the stuff not of the world as an unconceptualized mass of glub, but of the world as lived and experienced by God's creatures.

Hilary Putnam, writing about Goodman's *Ways of Worldmaking*,<sup>15</sup> has expressed the hope that Goodman will expand upon the briefest of accounts of how we are to judge between versions which he gives on the penultimate page:

Whether a picture is rightly designed or a statement correctly describes is tested by examination and reexamination of the picture or statement and what it refers to in one way or another, by trying its fit in varied applications and with other patterns and statements. One thinks again of Constable's intriguing remark ... that painting is a science of which pictures are the experiments.<sup>16</sup>

This seems to me to involve a fundamental betrayal of the position Goodman adopts throughout the rest of the book, for we seem to be invited to engage in exactly the kind of comparisons between versions and realities (in what looks suspiciously like a version-free way) that Goodman is elsewhere at such pains to say cannot be performed. Putnam seems to share this anxiety:

Goodman would, no doubt, reply that any superiority of our versions over other versions must be judged and claimed from *within* our collections of versions: there is no neutral place to stand. I heartily agree. But what I hope Goodman will say something about in the future is what makes our versions superior *by our lights*, not by some inconceivable neutral standard.<sup>17</sup>

Resonance realism attempts to respond to this request by offering another and better account of the process of testing,

which goes beyond Goodman's "fit" couched in terms suggesting an oscillation between statement/picture and world/object. It seizes Rorty's ironic conversational "resolution" of the dilemma of modern philosophy, and says that Rorty does not know what talking is about. The conversations which Rorty and his fellow ironists engage upon are being tested against the real world because testing is performed through conversation, theory and experimentation, not by comparing conversation, theory and experiment with something else (which notoriously leads to an infinite regress). It accepts that we cannot "climb out of our minds"<sup>18</sup> and therefore that we cannot perform comparisons of the kind such verifications would require. Rorty thinks he and his fellow ironists are merely conversing, albeit edifyingly; but nobody can do this, since the adequacy even of mere conversation à propos nothing in particular is still being assessed by those conversationalists in relation to its existential adequacy as part of a life process, i.e., as an activity in which an existent being chooses to engage,<sup>19</sup> not only through the resonances evoked in and by his fellow conversationalists, but in life resonances as a whole.

How does resonance realism work? It may seem to smuggle in comparisons by the back door in order to distinguish between versions, as if it were saying, "this version is better than that because it compares better with the real world". This is the trap Nelson Goodman falls into, and to which I have already referred. Resonance realism most emphatically does not involve comparisons in this sense, but does involve comparisons between resonances, i.e., resonance realism regards the single criterion by which a theory is to be judged as whether it produces better resonances than other theories. What are "better" resonances? *Simply those that reverberate most in our lives, that involve echoes in the beyond that match echoes in ourselves.* These "selves" are not, of course, "individuals", but persons who embody cultures and histories in unique, contingent ways. A scientist senses the resonances of his theories not just because he has performed an experiment that gives the results he expected, but because he is a member of a scientific culture that weaves that experiment, the theory it embodies and tests, and the professional and personal hopes and convictions that the scientist shares, into a web of beliefs that shapes his entire being.<sup>20</sup> In just the same way, we judge the appropriateness of our everyday (and technical) language by employing the acquired skill of attuning ourselves to the resonances our usage evokes from the extended web of beliefs, meanings and usages that constitute a linguistic community. We test out our words by uttering them and receiving a response from other users, by allowing them to resonate in our own memories, and by setting them within a historical tradition which has already established in our community a set of unspecifiable criteria by which adequacy of speech is to be assessed<sup>21</sup>. In theological and religious usage those same general criteria are supplemented by what we refer to as "the spiritual" that enlarges the dimensionality of the space within which our beliefs can resonate and to which we can resonate. Without those beliefs as articulated in the constructed theological and religious teachings of a tradition we experience a devastating reduction in the available volume and quality of the reverberations which are absolutely necessary in the establishment and definition of our being<sup>22</sup>, for contrary to so many of the suppositions that colour and limit humanity by diminishing the scope of his rationality, it is not in self-containment, passive receptivity, and closure, but in discovering the conceptual spaces to which we can resonate and in resonating be amplified and fulfilled that the attainment of true being is achieved. Let me summarize this in Dan Hardy's words:

[P]ersonal confirmation occurs through the discerning of significant form, not the other way round: the direction is outward.... Polanyi's emphasis on the movement of thought away from ourselves makes it clear that there is an inescapable ordering in the interrelation between the discernment of significant form and the discovery of our significance, and that the latter is achieved through the

former.<sup>23</sup>

The discernment of significant form is only possible, however, if we allow ourselves to be induced to realize a complementary aspect of that form. We must first receive, then construct by searching for patterns (in which we are aided by our imagination) and then be conformed to and by the patterns which we discern. Resonance realism incorporates rigorous internal coherence, rejection of relativism, and the role of constructive conversation and contingency, into a substantial insistence on the single reality of the external world that we make and find through the versions we employ to explore it<sup>24</sup>. In effect, resonance realism takes philosophy and theology beyond the tensions and conflicts between realism, foundationalism, transcendentalism and post-modernism without embracing those elements in post-modern thought (exemplified in this essay by Richard Rorty's work) that involve a fundamental renunciation of recourse to and respect for the external world as an everlasting source of regeneration.<sup>25</sup> The singleness of this reality<sup>26</sup> manifests itself through our versions by resonating to them to differing extents and thereby suggesting that there are other directions in which greater resonances might be found. The world does not indicate of itself what those directions are, but the fact that there are differences of resonance suggests to us that those directions are there, and our imaginations enable us to seek them out. A good "nose", and in some cases the courage needed to back-track and begin the ascent again, will lead some of us to explore better (i.e., more resonant) avenues of enquiry sooner than others. Acquisition of that nose is one of the main objectives of apprenticeship and education, but in the end it will be the richness of our imagination and not the self-limiting rigour of our logic that will govern how rich a world we discover, and therefore how rich a world we inhabit, for unless we first construct the dreams we shall never be able to ask the questions that will find the most resonant echoes in the depths of reality.

## Endnotes

<sup>1</sup> Michael Polanyi, "The Unaccountable Element in Science" reprinted in *Knowing and Being*, RKP, 1969, pp. 119ff.

<sup>2</sup> "Tacit Knowing", in *Knowing and Being*, p. 168.

<sup>3</sup> Cf. my "Information and Creation", in *The Science and Theology of Information, Proceedings of the Third European Conference on Science and Theology*, Labor et Fides, Geneva 1992.

<sup>4</sup> Cf. Rorty's *Contingency, irony and solidarity*, CUP, 1989, p. 21.

<sup>5</sup> Cf., for example, his *Varieties of Realism*, Blackwell, 1986, especially pp. 156-161.

<sup>6</sup> T.F. Torrance, *Theological Science*, OUP, 1969, p. 28. His emphasis.

<sup>7</sup> I have in mind especially the various forms of "critical realism" put forward by, for example, Ian Barbour in *Religion in an Age of Science*, Arthur Peacocke in *Theology for a Scientific Age*, and John Polkinghorne in *Reason and Reality*.

<sup>8</sup> Cf. Torrance's *Theological Science*, pp. 153n, 246n where attention is drawn to this element in Kierkegaard's thinking. Kierkegaard was himself drawing upon the work of Trendelenburg. In the *Concluding Unscientific Postscript*, p. 100 (Princeton Edition, 1974), Kierkegaard writes, "His [Trendelenburg's] merit consists among other things in having apprehended movement as the inexplicable presupposition and common factor of thinking and being, and as their continued reciprocity."

<sup>9</sup> Cf., for example, the many references to Torrance's own teacher A.E. Taylor's *The Faith of a Moralist* in Torrance's *Theological Science*, (OUP) 1969, p. 342n "Dogmatic science, of course, has its own kind of authority, but it is the authority of the irreducibly given, or as A.E. Taylor expressed it, 'that which is simply received, not invented by ourselves, and is therefore, in its nature, simply authoritative'", but elsewhere (e.g., p.28) Torrance shows much more awareness of the difficulties involved in the notion of "the given."

- <sup>10</sup> T.F. Torrance, *Theological Science*, (OUP), 1969, p. 165. His emphasis.
- <sup>11</sup> Nelson Goodman, *Ways of Worldmaking*, Hackett, 1978, p.138.
- <sup>12</sup> Rorty refers to an article by John D. Caputo, *Review of Metaphysics*, 36(1983) pp. 661-685, where he coins the phrase (which Rorty's nominalism leads him to dislike) "language ... is the event that gives birth to things". Understood theologically, this is just a restatement of the nature of the creative action of the Word of God and the words of men.
- <sup>13</sup> The term is, of course, borrowed from his *Varieties of Realism*, Blackwell, 1986, pp. 300ff.
- <sup>14</sup> Cf. for example, *de Incarnatione*, section 8.
- <sup>15</sup> *Realism and Reason*, CUP, 1983, p. 168, where Putnam also expresses much the same doubts as I voice about the discussion of tests for truth in *Ways of Worldmaking*.
- <sup>16</sup> Goodman, op. cit. p. 139.
- <sup>17</sup> Putnam, loc. cit.
- <sup>18</sup> Cf. Thomas Nagel, *The View from Nowhere*, passim.
- <sup>19</sup> Supposedly meaningless books such as *Finnegan's Wake* are not counter-examples to this thesis since one cannot claim to be doing or writing something existentially irrelevant and insignificant without self-contradiction for the obvious reason that the mere desire to claim to be doing or writing such a thing automatically invests it with significance.
- <sup>20</sup> It is for this notion of a "web of beliefs" and his reworking of the American pragmatism of C.S. Peirce, William James and John Dewey in the light of it that I am most grateful to and appreciative of Richard Rorty's work, although I am aware of the negative implications of his atheistic nominalist stance for many of the other areas which I have addressed in this essay.
- <sup>21</sup> This account is compatible with Quine's account of language and its revisability in "Two Dogmas of Empiricism", in *From a Logical Point of View*, Harper Torchbooks, 1963, pp. 19-46. I have in mind particularly Quine's notion of a linguistic continuum that is susceptible to distortion and change and therefore, by extension, to resonating frequencies through which we can feel the appropriateness of our own linguistic usage in a particular culture.
- <sup>22</sup> Although I have the gravest doubts about his rule-following account of religion, I approve in this context of Goerge Lindbeck's stress on the vital need to acquire the expressive medium of a religious tradition as he puts it in *The Nature of Doctrine*.
- <sup>23</sup> Daniel W. Hardy, "Christian Affirmation and the Structure of Personal Life" in *Belief in Science and in Christian Life*, ed. T.F. Torrance, Handsel Press, Edinburgh, 1980, p. 73.
- <sup>24</sup> This is an allusion to Vico's "found" and "made" distinction, which is itself erased by resonance realism, since the found and the made both arise within one or other of the versions we employ to explore the world and are therefore both found and made indistinguishably.
- <sup>25</sup> For the parallels between the closure of such a post-modernism and closure in thermodynamics, cf. my "Information and Creation". As I say there, Rorty's double concern to avoid the death of incommensurable discourse and to renounce respect for reality constitutes a deep contradiction in his thought based upon an excessive optimism about the capacity of edifying conversation to be self-regenerating in isolation from the stimulation afforded by the external world.
- <sup>26</sup> It should be obvious that when Goodman takes the drastic step of denying that "the world" exists he does not mean that external unconceptualized reality does not exist (that would be solipsism), but that any notion of "the world" is itself a function of the panoply of versions by which we conceptualize it, and that therefore "the world" exists in as many ways as we have versions, and not at all in the absence of all such versions.

## Contributors To This Issue

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