APPRAISAL

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EDITORIAL

In this issue, Richard A.S. Hall opens with, Jonathan Edwards as a pluralistic personalist. Jonathan Edwards (1703—1758) was a widely acknowledged American Christian theologian. Richard Hall attempts to show personalists that Edwards is 'in spirit' a personalist, and to introduce Edwards' scholars to personalism through the work of G.H. Howison which 'at many points resembles Edwards', whose biographer, George Marsden writes:

Edwards insisted that the starting point for all thought must be the recognition that the universe is essentially personal. All being originates in the interpersonal relationships of the Trinity and the very purpose of creation is to express God's redemptive love.

Edwards' works are available online through the Yale University website.

'Autonomous robots and tacit knowledge' by Mihály Héder and Daniel Paksi asserts that Polanyi's notions of tacit knowledge and emergence enable them to argue that certain machines have tacit knowledge, although humans could not understand it. This challenges Wittgenstein's ironic question' 'Does a calculating machine calculate?' intended to elicit 'No! Human beings calculate and calculating machines, like an abacus, are merely aids to calculation'. Yet, because 'principles of engineering are needed in addition to physical-chemical principles to control the machine's physical structure and achieve its goal' and that this applies to living things, they conclude that machines and living organisms are two subclasses of the same class.

'Determinism determined' by Jasper Doomen provides an account of how questions of free will should be answered in the light of developments in quantum physics and neuropsychology. He argues that although determinism as commonly understood cannot be demonstrated, it can be shown, 'on the basis of individual determinism, that actions come about in a determined way, leaving no room for "free will". Doomen admits he cannot be certain that persons don't have free will, yet by concentrating on a 'factor-determined being' whose 'factors', such as genes, are observable, free will can have no part in action. Although this is tautological, he states this provides his position with its strength and weakness.

'Anthropomorphism and the evils of realism', by Simon Smith, argues against theological realism, which sees evil/suffering as knit into nature, forcing the question, 'Why did God create such a world?' One response is that the life of faith is a personal relation with God: '... not an enquiry into existence per se (or in se) as realists would have us believe. It is a response to questions both practical and urgent'. The question as to why God did not create a 'better' world is seen as wrong headed, and '... the realist anthropomorphism which transformed the world into a human artifact terminates in the emptiest of abstractions'. The, sometimes tragic, 'accidents' in nature are in fact 'indistinguishable from the conditions for existence'. There is no 'paranoid' hidden meaning behind it. Religion is about praxis where "we find the criteria by which theoria must be judged'.

In 'Emotional parasitism' Richard Allen claims that emotional parasitism is especially evident in the meaninglessness of modern life. Max Scheler and Collingwood are drawn upon and supplemented, and examples presented of emotionally parasitic characters in works by Muriel Spark, 'Miss Read', and especially D.H. Lawrence. 'Receptive emotional parasitism' and 'directive-receptive emotional parasitism' are the broad categories used, and child-centered education is criticized as prone to encouraging emotional parasitism.

Alan Ford

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JONATHAN EDWARDS AS A PLURALISTIC PERSONALIST*

Richard A. S. Hall

On, to the bound of the waste On, to the City of God.

-Matthew Arnold, Rugby Chapel

Abstract

There are Personalistic elements in Jonathan Edwards' thought clearly anticipating the fully fledged Personalism of G. H. Howison. Both are idealists since for them the only reality is minds/persons. Both are pluralists insofar as they agree that many minds are a necessary condition for values—for Edwards, moral and aesthetic values, for Howison, human individuality and freedom. Both consider infinite mind (God) and finite minds (human) as constituting a pluralistic unity, i.e. Edwards' 'being-in-general' and Howison's 'eternal Republic of God'.

Keywords

Aesthetics, Beauty, Idealism, Person, Personalism, Pluralism, Virtue

Personalists and students of Personalism might know of Jonathan Edwards as a theologian, a leader of the Great Awakening in America, and the author of the famous (infamous) imprecatory sermon, 'Sinners in the Hands of an Angry God', a staple of surveys of American literature, but perhaps not acquainted with him as America's premier philosopher. On the other hand, students of Edwards may have little acquaintance with the philosophical movement of Personalism and its major figures. My limited intention in his paper, then, is both to bring to the attention of advocates and scholars of Personalism that Edwards is, if not in name but certainly in spirit, a Personalist from whom they could profitable learn, and to acquaint Edwards scholars with Personalism as represented by one of its key exponents, G. H. Howison, whose Personalistic philosophy at many points resembles Edwards' and represents, as it were, a recasting of Edwards' ideas in terms of late nineteenth-century idealism thereby tacitly continuing an Edwardsean legacy.

Edwards' recent biographer, George Marsden, has recognized the Personalistic element in his thought though without associating him with the movement of Personalism: 'Edwards insisted that the starting point for all thought must be the recognition that the

universe is essentially personal. All being originates in the interpersonal relationships of the Trinity and the very purpose of creation is to express God's redemptive love'. My focus is on Edwards, though in a coda to the paper I shall briefly indicate how his Personalism anticipates Howison's.

Joseph Conforti has aptly characterized Jonathan Edwards as 'a kind of white whale of American religious history',2 and, I might add, of American culture in general. Like Moby Dick he continues to lurk, typically unseen, in the deeper waters of American philosophy and to haunt the American psyche. Like Melville's monstrous cetacean, his thought dazzles by its brilliance but ultimately confounds by the enigma at its bottom. He invites ambivalence: he both fascinates and repels, is both loved and loathed; this ambivalence is neatly caught in Mark Twain's remark about him, 'a resplendent intellect gone mad'.3 Be that is it may, a student of the history of American ideas (whether religious, literary, or philosophical), like Ahab, is predestined to be encountered by Jonathan Edwards. The eminent nineteenth-century American historian, George Bancroft, counselled, 'He that will know the workings of the mind of New England in the middle of the last century, and the throbbings of its heart, must give his days and nights to the study of Jonathan Edwards'.4 One might say the same of someone who would know the workings of the American mind. And Frederick D. Maurice, the English cleric and philosopher, prophesied in 1872, 'In his own country he [Edwards] retains, and must always retain, a great power. We should imagine that all American theology and philosophy, whatever changes it may undergo, and with whatever foreign elements it may be associated, must be cast in his mould';5 this prophecy has in part come to pass, albeit in ways subtle and indirect but unintended and perhaps unimagined by Maurice. (Though one might question whether American philosophy and theology must be cast in Edwards' mould, and certainly much

Some scholars have revealed apparent thematic continuities (the key word here is 'continuities' not 'influences') between Edwards' thought and that of later American thinkers. In a now classic essay, 'Jonathan Edwards to Emerson', Perry Miller traced thematic continuities between them. To critics who thought that he was claiming an influence of

Edwards on Emerson, he replied that he was not arguing for a 'direct line of intellectual descent, as though Edwards were a Holinshed to Emerson's Shakespeare' but 'that certain basic continuities persist in a culture . . . which underlie the successive articulation of 'ideas'.6 In a more ambitious project along the same lines, Bruce Kuklick, in Churchmen and Philosophers: From Jonathan Edwards to John Dewey, argues 'that there are continuities that take us from Edwards to Dewey'.7 And William A. Clebsch, in American Religious Thought: A History, links Edwards with not only Emerson but also William James as advocates of a distinctively aesthetic spirituality in contrast to a prosaic moralism.8 Some scholars, moreover, have traced continuities from Edwards to Peirce, Thoreau, and even Annie Dillard and Mary Baker Eddy; furthermore, they are traceable from him to Royce.9

In this paper I hope to continue this trend by showing thematic continuities between the thought of Edwards and American Personalism, particularly that espoused by George Holmes Howison. In so doing, I hope to enfranchise Edwards as a *bona fide* Personalist—in spirit, at least, if not in name.

Jan Olof Bengtsson has characterized Personalism as follows:

Personalism posits ultimate reality and value in personhood—human as well as (at least for most personalists) divine. It emphasizes the significance, uniqueness and inviolability of the person, as well as the person's essentially relational or communitarian dimension. The title 'personalism' can therefore legitimately be applied to any school of thought that focuses on the reality of persons and their unique status among beings in general, and personalists normally acknowledge the indirect contributions of a wide range of thinkers throughout the history of philosophy who did not regard themselves as personalists.¹⁰

Such are the indirect contributions of Edwards, though he never referred to himself as a Personalist as such nor has he been so classified.

The idea for this paper came from Alan Heimert's remark in his *Religion and the American Mind:* From the Great Awakening to the American Revolution that 'in substance, the God of Jonathan Edwards was a supremely excellent Christian commonwealth'. Heimert argues that Edwards in his speculations on the Millennium had a vision for a distinctively American democratic polity (though M. Daroll Bryant has decisively refuted this narrow interpretation of Edwards 12). As far as he goes Heimert is in the main correct but, as we shall see, he does not go far enough: to continue the metaphor, for Edwards God is the Lord Protector of that commonwealth. Similarly, Howison 'saw the Ideal as

the "eternal Republic of God" (the 'City of God') which is 'a democratic, pluralistic type of community of human minds'.¹³

In what follows I shall consider the following: (1) Edwards' conception of the person; (2) his idea that reality must be constituted of a plurality of persons; (3) his understanding of persons as the only real substances and thus solely constitutive of reality; (4) the inviolableness of the individual person; (5) that value itself, aesthetic and moral, presupposes a plurality and union of persons. In brief, I shall demonstrate that both Edwards' axiology and ontology are irreducibly and necessarily personalistic and pluralistic, and that consenting (benevolent) persons are the source of all goodness.

I shall begin, then, with Edwards' conception of the person as it is found in his *Religious Affections*, a classic in the psychology of religion. Edwards uses the term 'soul' instead of 'person' but in his context it means the same as do the cognate terms 'mind' and 'self'. Rejecting the old scholastic faculty psychology, going back to Plato, according to which the mind or soul was made up of three basic and distinct psychic departments or faculties, namely, reason, will, and the emotions, with reason being superior to and the proper regulator of the others, he puts in its place a strikingly modern and parsimonious concept of mind. He reduces the mind to but two faculties, viz. the understanding and the will: 'one is that by which it is capable of perception and speculation, . . . ; which is called the understanding. The other faculty is that by which the soul . . . is some way inclined with respect to the things it views or considers; either is inclined to 'em, or is disinclined, and averse from 'em'. Further, Edwards assimilates the emotions (what he calls the affections) to the will: 'The affections are not essentially distinct from the will, nor do they differ from the mere actings of the will and inclination of the soul, but only in the liveliness and sensibleness of exercise'.¹⁴ Note that in his phrasing—to wit, 'by which it is capable' and 'by which the soul is some way inclined or disinclined-Edwards, in Jamesian fashion, conceives of these twin faculties of understanding and will not as substances or things but as capacities or functions. The intimacy that Edwards establishes between the understanding and will is explicitly stated in his Freedom of the Will where he gives the following equation: 'the will always is as the greatest apparent good is'.15 The good is whatever is agreeable (pleasing), the absence of which is disagreeable. The greatest apparent good is direct or immediate, not remote. An object's appearing good or pleasing to the mind is equivalent to the mind's choosing or being pleased by it. This is virtually a behavioristic conception wherein volition is reduced simply to a stimulus and its response.

Edwards, then, conceives of the person holistically. The emotions are awarded pride of place along with the understanding. They, along with it, are integral to the person, the vital link between thought and action. Any object of our awareness will ineluctably draw or repel us to some degree, however minutely; we cannot remain affectively neutral or indifferent to anything in our experience; we are, inescapably, in a continual state of affective and volitional responsiveness. Edwards' concept of the person is fundamentally and inherently voluntaristic.

For Edwards, moreover, a plurality of persons is a necessary presupposition of his relational theory of value to which I now turn. In his early essay, 'The Mind', Edwards informs us that what he calls 'excellency' is an ultimate concern of his which he is at pains to define precisely. 'There has nothing been more without a definition than excellency, although it be what we are more concerned with than anything else whatsoever. Yea, we are concerned with nothing else'. A synonym for 'excellency' is 'beauty'. In the same place he makes a statement that takes us directly to his pluralistic theories of value and of being lying at the very centre of his system: 'One alone, without any reference to any more, cannot be excellent', the reason being that 'in such a case there can be no manner of relation no way, and therefore, no such thing as consent' or agreement. Excellency or beauty, then, is a matter of things agreeing or consenting. It is a relational term. He goes on to specify what that relation of consent boils down to, which is proportion. And he defines 'proportion' mathematically as 'an equality, or likeness of ratios' such that 'if two parallel lines be drawn, the beauty is greater than if they were obliquely inclined without proportion, because there is equality of distance'.16 This is a description of sensory or aesthetic beauty as found in works of art and nature.

Now 'consent' is originally a volitional term, applying to a relation among persons, not things. Thus when persons consent to one another or agree, they are united in heart and mind; their consent is 'cordial'. The parts of a physical design like a building do not consent literally or cordially since they lack understanding and will, but only analogically. Their consent, which to distinguish it Edwards calls 'natural', is then but a pale reflection of, or abstract from, the cordial consent among persons, the only real and authentic kind of consent. This natural consent Edwards denominates 'secondary' beauty, and cordial consent 'primary' beauty. Cordial

consent is nothing other than benevolence or love, so natural consent is its image. Primary beauty is superior to secondary for three reasons:

- (1) It is the original beauty of which secondary is but a mere derivative and copy since the consent constituting it is cordial and not merely natural or analogous.
- (2) This cordial consent is a relation among minds or persons which, for Edwards the idealist, are the only substantial realities: 'As nothing else has a proper being but spirits, and as bodies are but the shadow of being, therefore, the consent of bodies to one another, and the harmony that is among them, is but the shadow of excellency. The highest excellency, therefore, must be the consent of spirits one to another'.
- (3) Primary beauty allows for vastly greater proportions: 'Spiritual harmonies are of vastly larger extent; i.e., the proportions are vastly oftener redoubled, and respect more beings'.¹⁷

The cordial consent of minds or persons is moral beauty or true virtue. In his late dissertation, The Nature of True Virtue, Edwards defines 'true virtue' as what 'most essentially consists in benevolence to being in general', or 'that consent, propensity and union of heart to being in general'. He here iterates the idealism of 'The Mind' in stipulating that this cordial consent is a relation solely among persons: 'When I speak of an intelligent being having a heart united and benevolently disposed to being in general, I thereby mean intelligent being in general. Not . . . beings that have no perception or will; which are not properly capable objects of benevolence'. Edwards further stipulates that consent or benevolence is truly virtuous if it has as its object nothing less than being in general, or the totality of persons, including God, since each person is necessarily a part of general being: 'And if every intelligent being . . . stands in connection with the whole; what can its general and true beauty be, but its union and consent with the great whole?' Consent that falls short of being in general, such as love limited to family, tribe or country, is not truly virtuous, unless it arises from and is subordinate to a more general consent. One's consent or love, to be truly virtuous, must be proportionate to the being beloved; the greater the being the more love owed it, the lesser the being the less love: 'that object who has most of being, . . . , will have the greatest share of the propensity and benevolent affections of the heart',18 that object being God who is infinite being.

The existence of excellency, beauty and virtue, then, presupposes a plurality of persons. Edwards' axiology is fundamentally personalistic and pluralistic. This, moreover, provides metaphysical justification

for his Trinitarianism: 'Therefore, if God is excellent, there must be a plurality in God; otherwise there can be no consent in Him'. 19 Since the persons of the Trinity are united in cordial consent or love to one another, the relations constituting the trinity are the acme of primary beauty which is the chief perfection of God.

Edwards conceives of reality as a vast system of minds or persons who are, ideally at least, in relations of cordial consent among themselves thereby creating a supremely beautiful or harmonious system of beings. It is their plurality that makes consent and so beauty and virtue possible. They do constitute something of a Commonwealth with the divine mind or person of God at its centre. Furthermore, persons retain their individuality and integrity in this system; they do not lose their identities by being blended together into a homogenous mass like raindrops falling and dissolving into the ocean. If they did the consent among them would be impossible and both beauty and virtue would vanish from the world not to mention the Godhead—'one alone, without any reference to any more, cannot be excellent'.

Now to the coda of my paper where I indicate how Edwards' personalistic pluralism anticipates Howison's. But first a brief word about Howison. John H. Randall gives the following biographical sketch:

George Holmes Howison (1834-1917), . . . installed philosophy at Berkeley in 1884 and founded its famous Philosophical Union, A teacher of mathematics in St. Louis, he was a member of the Kant Club that went over Brokmeyer's translation of Hegel's *Phenomenologie*; he taught logic and the philosophy of science at M.I.T. from 1872 to 1878; then enjoyed two years' study in Germany under Michelet the Hegelian, and began to expound 'the "Absolute Idea" as a Reason eternally personal, and the ground and source of the personality in man, instead of a mere bond of Logical Energy, coming first to consciouness in human nature'. Howison preached a personalistic pluralism, and saw the Ideal as the 'eternal republic of God'.²⁰

In *The Limits of Evolution* of 1901, Howison lays down the following theses, which I quote verbatim:

I. All existence is either (1) the existence of *minds*, or (2) the existence of *the items and order of their experience*; all the existences known as 'material' consisting in certain of these experiences. . . .

III. These many minds, being in this mutual recognition of their moral reality the determining ground of all events and all mere 'things', form the eternal (i.e. unconditionally real) world; and . . . may be said to constitute the 'City of God' . . . God, the

fulfilled Type of every mind, the living Bond of their union, reigns in it, not by the exercise of power, but solely by light; not by authority, but by reason; not by efficient, but by final causation—that is, simply by impersonated Ideal of every mind. VII. This Pluralism held in union by reason, the World of Spirits, is thus the genuine *Unmoved One* that moves all Things. Not the solitary God, but the whole World of Spirits including God, and united through recognition of him, is the real 'Prime Mover'.... Its oneness is not that of a single inflex-ible Unit, leaving no room for freedom in the many, for a many that is really many, but is the oneness of uniting harmony, of spontaneous co-operation, in which every member, from inner initiative, from native contemplation of the same Ideal, joins in moving all things changeable toward the common goal.²¹

The ideas common to Howison and Edwards are obvious and striking: Edwards' assertion that 'nothing else has a proper being but spirits and . . . bodies are but the shadow of being' is mirrored in Howison's first thesis, 'All existence is either (1) the existence of minds, or (2) the existence of the items and order of their experience, all the existences known as 'material' consisting in certain of these experiences'. Moreover, Edwards' social ontology consisting of a plurality of consenting persons centred on God anticipates Howison's third thesis, 'These many minds, being in this mutual recognition of their moral reality the determining ground of all events and all mere 'things', form the eternal (i.e. unconditionally real) world; and . . . may be said to constitute the "City of God". Finally, an echo of Edwards' moral vision of being-in-general as inclusive of all persons, human and divine, and the proper object of benevolence, is heard in Howison's seventh thesis, namely:

This Pluralism held in union by reason, the World of Spirits, is thus the genuine *Unmoved One that moves all Things*. Not the solitary God, but the whole World of Spirits including God, and united through recognition of him, is the real 'Prime Mover'. . . . Its oneness is not that of a single inflexible Unit, leaving no room for freedom in the many, for a many that is really many, but is the oneness of uniting harmony, of spontaneous co-operation, in which every member, from inner initiative, from native contemplation of the same Ideal, joins in moving all things changeable toward the common goal.²²

There is, however, a fundamental difference between Edwards and Howison. Edwards excludes human freedom of will from his cosmos. Edwards, like Hobbes and Hume, is a compatibilist who believes that we are not free to *choose* what we do but only free to *do* what we choose if we are unrestrained or unconstrained. Edwards' being-in-general is what Howison describes and rejects as 'a single inflexible Unit, leaving no room for freedom in the many' though the many constitute it. Interestingly, Howison takes note of Edwards in a commendatory way in a discussion of free will in *The Limits of Evolution*. There he endorses the judgment that:

the key to Jonathan Edwards's genius in theology was his possession by the idea of the Divine Supremacy, and that the success of any new theology will depend upon its setting out from the same transcendent base. The problem is, keeping upon this highest theme in accord with Augustine, with Calvin, and with Edwards, and avoiding any compromise of its true exaltation, to find a new way, more genuinely divine and more expressive of the spirit of Christ than theirs, to carry out the sovereign reign of God, to display its reality, and to accord to it commensurate results.²³

In both his theological hope that a new way might be found in keeping upon this highest theme in accord with Edwards, and his pluralistic personalism, Howison has, as Maurice prophesied, cast, albeit unconsciously, his own philosophy and the future of theology in Edwards' mould.

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Notes:

- * This article was read at the 110th Conference on Persons, Pova, Utah, August 2011.
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- 2. Joseph A. Conforti, *Jonathan Edwards, Religious Tradition, and American Culture* (Chapel Hill, NC: University of North Carolina Press, 1995), p. 1.
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- Perry Miller, 'From Edwards to Emerson', in *Errand into the Wilderness* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1956), pp. 184-85

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- 8. William A. Clebsch, in *American Religious Thought: A History* (Chicago: The University of Chicago Press), 1973), p. xvi.
- 9. For further details on these intellectual continuities between Edwards and later American thinkers see *The Contribution of Jonathan Edwards to American Culture and Society: Essays on America's Spiritual Founding Father (The Northampton Tercentenary Celebration, 1703-2003)*, ed. by Richard A. S. Hall (Lewiston, New York: The Edwin Mellen Press, 2008.
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- 12. See M. Darrol Bryant, Jonathan Edwards' *Grammar of Time, Self, and Society* (Lewiston, New York: Edwin Mellen Press, 1993).
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AUTONOMOUS ROBOTS AND TACIT KNOWLEDGE

Mihály Héder and Daniel Paksi

Abstract

The recent decade has seen so much development in the area of autonomous robots that it is worth (re-) investigating the relation of machines to knowledge according to the concept of tacit knowledge put forth by Michael Polanyi. In this paper we argue that certain machines—autonomous robots with a 'centre'—have tacit knowledge, much in the same way that animals do. They cannot explicate their knowledge, and their knowledge is not identical with the partly explicit knowledge that an engineer possesses about the machine, e.g. its program code. When someone tries to understand how a robot operates, it is very easy to unreflectively mix these points of view and come to the false conclusion that robots are capable of doing things because they are explicitly instructed to do so.

Key Words

Michael Polanyi, tacit knowledge, autonomous, machines, centre, boundary conditions

1. Introduction

The recent technology exposition iRex 2011 included a great attraction for the visitors: a robot called Primer-V2 riding a tiny bicycle (see the video: www.youtube.com/watch?v=mT3vfSQePcs) This robot is a humanoid, meaning that its 40cm tall body, made of aluminium and plastic, mimics the human form. The robot has four different sensors that provide feedback to the central control unit, which is located in the backpack of the robot and programmed on a chip slightly larger than 1x1 cm.

A remote control was used to direct the robot, but it only sent high-level commands like 'bike forward' or 'stop'. Pedalling and balancing are managed by the robot itself. The Japanese creator's next goal is to enhance the robot to allow it to plan its own route, thus making the remote control unnecessary.

The Primer-V2 represents only the latest stage in the evolution of bicycle-riding robots. It is especially interesting to us because of its autonomy, its ability to balance without a gyroscope, and its humanoid body. Even the bicycle is a regular one, only a little bit smaller.

Many of these features were present in earlier projects as well, but not at the same time. The humanoid Murata Boy already pedalled on a bike in 2005; its sister, Murata Girl was able to ride a unicycle. These robots were stabilized by a

gyroscope. Other robots, like the entrants in the BicyRobo Thailand student challenge (first organized in 2011) did not use additional stabilizators, balancing using handlebars only. However, these robots did not have a rider, but were automated bikes.

(See: www.filozofia.bme.hu/pub/appraisal/robots/Figure2.jpg)

There are many other examples through which we could investigate the question of machine knowledge: e.g. chess-playing robots, the Wolfram Alpha question answering system, the famous jeopardy player Watson, unmanned aerial vehicles (UAVs), the Mars Rovers, etc. But we are sure that for Polanyi readers it is clear why we choose this particular robot: bicycle riding is one of Polanyi's favourite examples for explaining tacit knowledge (e.g. 'The Logic of Tacit Inference', KB, p. 138-158,¹ or PK pp. 49-50).

Our goal in this paper is to evaluate the relation of tacit knowledge and autonomous robots like Primer-V2. These robots could only be speculative thought experiments in Polanyi's time. This means that we are applying the concept of tacit knowledge in a new area; we think this application is possible without changing or abandoning the original philosophical framework. Primer-V2 appears as something that rides a bike. Is this achieved with knowledge of same kind that humans have? Is it fundamentally different? Or should we say that it is not knowledge at all—only successful operation?

2. Emergent organisms and machines

The first question we have to answer concerns the ontological status of machines. Polanyi discusses machines and living organisms together in 'Life's Irreducible Structure' (Polanyi, 1968a). Is this just an analogy or more?

Machines are emergent entities as they are controlled by two different principles irreducible to each other:

A machine as a whole works under the control of two distinct principles. The higher one is the principle of the machine's design, and this harnesses the lower one, which consists in the physical-chemical processes on which the machine relies (p.1).

This structure is the basis of living organisms as well: 'Living Mechanisms are classed with machines' (p.1).

By establishing that machines and living things belong to the same class, a straightforward means of explaining certain features of the living opens up:

Morphogenesis, the process by which the structure of living beings develops, can then be likened to the shaping of a machine which will act as a boundary for the laws of inanimate nature. For just as these laws serve the machine, so they serve also the developed organism (p.1).

A consequence of the emergent, two-layer structure of machines is that (like life) they cannot be explained on the lower, explicit physical or chemical level alone:

Engineering and physics are two different sciences. Engineering includes the operational principles of machines and some knowledge of physics bearing on these principles. Physics and chemistry, on the other hand, include no knowledge of the operational principles of machines. Hence a complete physical and chemical topography of an object would not tell us whether it is a machine, and if so, how it works, and for what purpose. Physical and chemical investigations of a machine are meaningless, unless undertaken with a bearing on the previously established operational principles of the machine (TD, p. 39).

We have to come to the conclusion that in Polanyi's view machines and living organisms belong to two different subclasses of the same class of emergent entities under dual control.

It is also clear that living organisms have tacit knowledge. As Polanyi states in Personal Knowledge:

'knowing belongs to the class of achievements that are comprised by all forms of living, simply because every manifestation of life is a technical achievement (...) (PK, p. 403).

The second part of the sentence is especially interesting for us as, because it makes clear that the classification we explained above is in fact *ontological*, and also that knowing is a feature of this class *in general*. It is also a denial of the materialist view that life's unique phenomena are a result of a random coincidence of physical and chemical processes.

Polanyi makes his position even more clear when he discusses machines and simple organisms such as the amoeba:

I think that what you call the logic of choice is deeply imbedded in all manifestations of rationality down to the level of the amoeba It is likewise inherent in the conception of all machines and indeed of any purposive device (Polanyi, 1953).

Or even simpler life forms (PK, p. 387 'bacillus', p. 400-401 'germs').

As we already pointed out, the structures of machines and living things are more than similar. Polanyi distinguishes two different types of boundary conditions ('Life's Irreducible Structure'). The first is the test-tube type boundary condition, which ontologically does not transcend the level of physical-chemical processes. Contrary to this, the machine type boundary condition transcends the lower level. 'Thus the morphology of living things transcends the laws of physics and chemistry' (p.2). As in the case of machines, where the principles of addition engineering are needed in physical-chemical principles to control the machine's physical structure and achieve its goal, living things have their own biological principles in addition to physical-chemical ones. In other words, according to Polanyi, because of the machine type boundary conditions, machines and living organisms are different from other entities like a crystal or a tornado that fall under only test-tube-like boundary conditions, or in other words that are only governed by physical-chemical principles. This reassures us that machines and living organisms belong to two subclasses of the same class.2

Polanyi explains how important the 'unformalizable regulative functions'—which belong to the higher level of the emergent structure—are for supporting life. We can find similar regulative functions in the case of Primer-V2: the control unit in the backpack of the robot provides these functions.

(P1) Considering that machines and living things are subclasses of the same ontological class, and (P2) recognizing the control mechanism of a robot as the machine equivalent of living organism's regulative functions, while not forgetting that (P3) all forms of life are capable of knowing, that is, have some kind of knowledge, we arrive to the conclusion (C) that robots like Primer-V2 also possess some kind of knowledge.

It is important to point out that Primer-V2's machine-like, emergent structure alone is *not enough* to explain that it can possess knowledge. An additional requirement is needed to fulfil this ability: that it has a *centre* (PK p. 344) that features regulative functions that control its body and maintain its operation, '...a centre of self-interest against the world-wide drift of meaningless happenings' (PK p. 387).

The concept of the regulative centre enables us to resolve the deep problem generated by the fact that robots are not living organisms and yet they know certain things. The presence of a centre is *necessary* for even the most primitive forms of life, because they would not survive a minute without the regulative functions realized therein. In the case of machines however, a centre is not necessary.

Humanity has invented many machines—like the hammer, or the bicycle—that fall under the dual control of test-tube type and machine type conditions, but do not have a centre; this category does not exist in the case of biological life. These machines are not autonomous and require an operator. We can see these machines as *extensions* of the human body, as in Polanyi's example of a man who orientates himself with a staff. Or we can say that these machines are regulated by their operator's centre. In other words, while Primer-V2 has its own knowledge, a hammer does not—the man with a hammer does.

In this article we only discuss machines that are autonomous, a feature achieved by a regulative centre. We do not say that a hammer knows how to nail, or a car knows how to accelerate, etc., we discuss autonomous robots only. Nevertheless, it is a non-trivial task to define the boundary between autonomous robots that have centres and simple machines and tools that do not. We think that according to Polanyi there is no clear, explicit definition for this boundary. In any case, we are not aiming to answer this question here, but are asserting that robots like Primer-V2 or an autonomous UAV definitely fall in the category of machines with centres and tools like a hammer or a (regular) bicycle fall definitely outside of it.

It is very difficult to deny the capacity for any kind of knowledge in the case of Primer-V2 or similar robots. In this position one has to argue that the robot does not know how to ride a bicycle, even though it does something very similar; or that a chess machine does not know how to play chess, even though a layman cannot beat it anymore at the game.

3. Designing a knowing robot

In the previous section we explained that in certain cases we have to call a robot's performance 'knowledge'. Now it is time to discuss how Primer-V2's knowledge of riding a bicycle relates to similar knowledge employed by a living organism, in this case a human or a trained primate.

It is clear that Primer-V2's capacity for bicycle riding is achieved in a very *different* manner from the way a human achieves the same. In the robot's case the regulative functions are realized with a proportional-integral-derivative (PID) method, a classical approach in control theory; this regulation is very different from what a human or an animal does. It is also evident that the body structure of the robot is very different from the human body: its stability is not provided by a skeleton, there are no muscles, and the motion is achieved by servo motors, etc. (*see http://www.filozofia.bme.hu/pub/appraisal/robots / Figure3.jpg*),

which displays the components of the Kondo HRV, a commercially available robot kit on which Primer-V2 is based).

Moreover, human bicycle riding was not fully explicated—something that is impossible anyway according to Polanyi—and therefore we cannot say that human knowledge is somehow being explicitly simulated by a robot.

To understand the situation better, let us consider Polanyi's example of the neurologist (Polanyi, 1968b, p. 39).

The neurologist is able to examine the brain of another person while that person is, for example, watching a cat. The scientist is able to make focal the subject's brain's internal processes. Of course the subject itself cannot do this.

But the facts remains that to see a cat differs sharply from the knowledge of the mechanism of seeing a cat. They are a knowledge of quite different things (Polanyi, 1968b, p 39).

In other words no matter how fully the neurologist explicates the subject's brain mechanisms, the knowledge he gathers is *not the same* as the subject's own knowledge. As a consequence, the scientist cannot use the subject's knowledge as his own. The deep meaning of this example is more evident if we consider the case of riding a bicycle or playing a piano. The neurologist might be able to give an exhaustive explicit description of how the subject rides the bicycle or plays the piano in terms of brain and body mechanisms, but of course having only this knowledge does not enable him to ride or play at all.

The engineer is in a similar situation to that of the neurologist, in that she understands the software and hardware required to build a bicycle-riding robot. One could argue that the engineer explicitly knows every instruction required to make Primer-V2 ride and therefore its knowledge is fully explicated; and one could then arrive at the conclusion that because fully explicated knowledge is impossible according to Polanyi ('The Logic of Tacit Inference', KB 138-158. p.144, see the quotation later in this section), in this case there is no knowledge at all.

However, *both steps are wrong*. The robot's program code or hardware blueprint as grasped by the engineer is like the explicated brain mechanisms understood by the neurologist. It can be made focal, it is discoverable, it might be even formalizable—but *it is not the robot's knowledge*. It is the knowledge *of a spectator about* the robot.

On Figure 1 (see below, p. 14) we explain how we interpret the general process of the construction of a bicycle riding robot.

1. A person rides a bicycle.

- 2. A scientist examines the human's bicycle riding skill.
- 3. The scientist explicates his knowledge about the subject in mathematical formulae. This is not the same as the subject's knowledge. As a corollary, the scientist is not able to acquire the subject's knowledge of riding—maybe the scientist does not know how to ride a bicycle at all; it is beside the point. This knowledge is similar to that of the neurologist about the brain.³
- 4. The scientist transforms his explicated knowledge about bicycle riding to hardware architecture and program code.
- 5. The scientist builds and programs the robot.
- 6. The robot rides the bicycle.

We have to point out that the knowledge of the actual, built robot is not explicit, even though the scientist programmed his explicit knowledge in it. First of all, this is because the robot has a body of aluminium and plastic and servo motors, etc., about which the scientist himself has no fully explicit knowledge. Second, the program has different meanings for the robot and the scientist. For the scientist it is explicit knowledge, a description of a control method. For the robot, it is not explicit knowledge about something, it is something it applies. The robot does not have the explicit knowledge of the scientist, it does not even know the program—it does not understand programming patterns, PID control, etc.—it knows how to run a program. In this case, by controlling its body structure according to the program, it knows how to ride a bicycle.

In other words, what the scientist explicitly expresses in the program code is not explicit *for* the robot. It does not know what is written in the programming language (the scientist's explicit knowledge) and it does not ride by understanding it. What it does is *execute* a code, *integrating* it with its body structure into physical motion, enacting the knowledge of bicycle riding itself (a *tacit* knowledge). The scientist, in general, cannot do such things. On the other hand, the robot does not have his explicit knowledge at all!

Of course one could program a robot to print its program code at the push of a button—but the printed material also will not be the robot's knowledge. One could even engineer a robot in a way that it would display its hardware blueprints—analogous to the situation of the medical student who writes down the entire anatomy atlas (PK p. 89). That would be the robot 'explicating' a part of the scientist's knowledge (which have tacit components in the scientist himself!), not the robot's own knowledge, which is restricted to the capability

of running the code and thus riding the bike. As Polanyi explains:

While tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood and applied. Hence all knowledge is either *tacit* or *rooted in tacit knowledge*. A *wholly* explicit knowledge is unthinkable' ('The Logic of Tacit Inference', KB 138-158. p. 144).

We have to come to the conclusion that, just like with animals or humans, the robot's knowledge is at least partly—but more likely totally—tacit. We cannot say that the robot works according the explicit knowledge of its creator; we also cannot say that the tacit part of their knowledge is similar, as they work according to very different principles. The corollary of this proposition is that, although they both know, there is a major difference between the kinds of knowledge possessed by robots and animals or robots and humans.

This very important distinction between the human's and machine's tacit knowledge is essential for the philosophy of AI debates. Without this distinction a deep tension arises because identifying a human's knowledge with its brain processes, which scientists might exhaustively describe one day, while at the same time identifying the robot's knowledge with its program code causes the difference between the two to appear to vanish.

4. The problem of consciousness

The arguments about robots' knowledge generate strong feelings and vigorous denial in many audiences. We believe that, at the core of these feelings, many people think that if robots possessed knowledge, then they would be like us. However, robots are clearly not like us, and consequently they cannot have knowledge; this is how the reasoning continues. For illuminating the difference between robots and humans, a common argument is that while humans are conscious, robots are not. Moreover, this argument is supported by Polanyi himself:: he states that any kind of awareness, including the capability to adapt as well as knowledge, requires some degree of consciousness (Polanyi, PK, p. 92).

We want to emphasize that when arguing that robots have tacit knowledge, we do not mean, at the same time, that they are like humans. We should not forget that the kind of knowledge we attribute primarily to humans is explicit knowledge, which separates them from the animal kingdom. According to our argument, robots do not have explicit knowledge, and this means they are very different from humans. Moreover, as in tacit knowledge, the embodiment is crucial, and as robots have bodies different from ours, so their tacit knowledge is also fundamentally different from tacit knowledge in

humans or animals. Robots are really unlike us. Our argument extends only to stating that they possess knowledge, and that knowledge is tacit. (Very interestingly, the idea of a robot having explicit knowledge seems more acceptable to many. Actually, this idea is much more radical than robots possessing tacit knowledge, and it can really dissolve the distinction between humans and machines.)

Naturally, it is possible to draw a sharp line between machines and humans in respect to consciousness. In order to do that, one need only consider the classical, critical notion consciousness that is rooted in Cartesian philosophy. According to this, consciousness is a transparent, purely rational, reflective phenomenon that is a feature of humans only. In this sense, neither animals nor robots have consciousness. We think that the argument for a lack of consciousness in the case of machines is a result of this classical view. In Polanyi's philosophy, we can talk about only this kind of reflexive consciousness at the level where there is language and explicit knowledge. This kind of consciousness enables the recognition articulation of otherwise fully tacit thinking processes that in this way can become subjects of focal awareness. In this sense, following Polanyi's philosophy, the distinction is clear between robots and humans. However, from this narrower definition of consciousness, animals are also excluded. If this kind of consciousness is necessary for knowledge, then animals cannot have knowledge.

But in Polanyi's philosophy it is clear that reflective, explicit Cartesian consciousness is not a prerequisite of knowledge and that animals have tacit (and only tacit) knowledge too, as we have seen in Chapter 2:

... knowing belongs to the class of achievements that are comprised by all forms of living, simply because every manifestation of life is a technical achievement, and is therefore—like the practice of technology—an applied knowledge of nature. (PK, p. 403)

And tacit knowledge involves a certain degree of consciousness:

While focal awareness is necessarily conscious, subsidiary awareness may vary over all degrees of consciousness. (PK, p. 92)

Following the second quotation, Polanyi discusses animal consciousness and the active centre that is a prerequisite to it. This active centre is necessarily present in every living organism, but in the domain of machines, it is present only in autonomous robots.

As we can see, in Polanyi's emergent worldview, both consciousness and knowledge are gradually emerging, dynamic phenomena that are present in even the simplest living organisms. Autonomous robots are not living, but they are still emergent entities at a similar level to simple life forms. An amoeba is able to perceive the presence of food through its chemical receptors, to extend its body in the direction of the food, and finally to ingest the food. Likewise, a Mars Rover is able to perceive obstacles that are in its way through its visual receptors, and then it can calculate a new path and pass by the obstacle. At a very low level of consciousness, both the amoeba and a Mars Rover are aware of the food or the obstacle and each reacts accordingly. However, it would be really interesting research to investigate the degrees of consciousness in emergent development.

In a materialistic view—one that is heavily criticised and rejected by Polanyi—machines are purely material things, so their nature is not different from that of a rock or a cloud, and, by corollary, they cannot have knowledge. However, this argument does not stop with machines; it will necessarily extend to animals and humans as well. If we do not draw a line between purely physical objects and emergent beings—and in Polanyi's view machines are clearly emergent—with different levels of consciousness and knowledge, then how will it be possible to show that humans or other beings have more knowledge than a rock? On this path, we eliminate human thinking as well by reducing it to ion streams and electron transmissions.

5. Consequences and conclusions

The evaluation of machine intelligence is a difficult task that generates extensive debates. But the problem cannot be ignored because the systems of the 21st century continue to produce surprising results. For the sake of simplicity, in this article we only discussed a bicycle-riding robot. However, there are many other areas of interest: planetary explorer robots (Mars Rovers); autonomous ground and aerial vehicles usually utilized in combat; autonomous household robots; autonomous factories; autonomous life support systems in hospitals, etc. We think that our conclusions summarized in the following points hold for many applications:

- (1) These robots, like all machines, are emergent, in other words they are not purely physical in essence. This is made clear by Polanyi himself in 'Life's Irreducible Structure'.
- (2) Robots are capable of possessing knowledge; for instance, Primer-V2 knows how to ride a bicycle. However, this knowledge is fundamentally different from animal or human knowledge.
- (3) A robot's knowledge is always at least partly tacit. This is absolutely consistent with the way Polanyi uses the term. In our case with the

Primer-V2, Polanyi's explanation of how bicycle riding must be based on tacit knowledge is still valid, as the robot's knowledge relies on the tacit integration of an aluminium and plastic body and a program code that is explicit only for the programmer.

We do not think that points (2) or (3) ever occurred to Polanyi himself, or that he even considered this problem in a similar manner as we have. However, he did consider the problem of the Turing test and the simulation of mind (PK p. 263):

Mind is not the aggregate of its focally known manifestations, but is that on which we focus our attention while being subsidiarily aware of its manifestations. [...] According to these definitions of 'mind' or 'person', neither a machine, nor a neurological model, nor an equivalent robot, can be said to think, feel, imagine, desire, or judge something. They may conceivably simulate these propensities to such an extent as to deceive us altogether [Polanyi refers here to the Turing test]. But a deception, however compelling, does not qualify thereby as truth: no amount of subsequent experience can justify us in accepting as identical two things known from the start to be different in their nature.

These views on the simulation of the human mind support our conclusions. Polanyi, although his discussion of the problem is brief, instantly recognizes that it is *impossible* to identify a human mind with a machine that 'simulates' what is explicitly known about it. This is because of to the simple fact that the mind itself is *more* than its explicit description. In this article we rely on this fact and go one step further to state that *it is also impossible to identify a machine with its explicit description*. From this it is clear that a machine which is equal to humans is a logical impossibility. Polanyi's notes on this matter have only recently been published: Polanyi, 2010, p. 97. Polanyi Archives: Michael Polanyi on Mind and Machine).

Other variations of Polanyi's arguments concern the ineliminable human element in deduction carried out by machines (PK, p. 257-258) and the McCullogh-Pitts neural model's inability to explain intelligent behaviour (PK, p. 340). However, as we have tried to point out, his arguments against any possible equation between a human mind and machine are not inconsistent with a machine possessing tacit knowledge.

We think that our arrival at conclusions that Polanyi himself never intended to draw only emphasizes the truth of his philosophy: '... truth lies in the achievement of a contact with reality—a contact destined to reveal itself further by an

indefinite range of yet unforeseen consequences' (PK, p. 147).

Following up on our analysis, there are other possible questions to investigate in the future. One could investigate networked robots or a broad range of computers and their relation to knowledge. A proper definition of a centre in robots would be needed—probably based on systems theory. An even harder question is that of articulation made by robots. For Polanyi, the ability of articulation distinguishes humans from other living things. What if we come to the conclusion that robots do articulate? Are we more similar to robots than to frogs for example?

In this article we interpreted Polanyi's philosophy and came to the conclusion that certain machines do have tacit knowledge. But we also emphasized that this does *not* mean they are identical with living things.

This avoids a common problem in the philosophy of AI: that with the achievement of machine knowledge in an area previously dominated by humans, many think that human knowledge is successfully reproduced. This would indicate an ever-growing danger for the satisfactory demarcation of the human race from everything else—a development that is worrisome for many.

In our view the demarcation is clearer than ever. Thanks to Polanyi's philosophy, discussions of machine knowledge may continue.

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Notes:

1. p. 141-142: 'If I know how to ride a bicycle or how to swim, this does not mean that I can tell how I manage to keep my balance on a bicycle or keep afloat when swimming. I may not have the slightest idea of how I do this or even an entirely wrong or grossly imperfect idea of it, and yet go on cycling or swimming merrily. Nor can it be said that I know how to bicycle or swim and yet do not know how to co-ordinate the complex pattern of muscular acts by which I do my cycling or swimming. I both know how to carry out these performances as a whole and also know how to carry out the elementary acts which constitute them, though I cannot tell what these acts are. This is due to the fact that I am only subsidiarily aware of these things, and our subsidiary awareness of a thing may not suffice to make it identifiable.' p. 144: 'Such knowledge is ineffectual, unless known tacitly.'

- See also: Paksi, 'Emergence and Reduction in the Philosophy of Michael Polányi Part I & II'. Part I. in Appraisal. Vol. 8. No. 2. 34-41. 2010. Part II. in Appraisal. Vol. 8. No. 4. 28-42. 2011
- 3. Of course, examining humans is not the only way of creating machines. It is possible to skip the first four steps in this list with artificial evolution for example.

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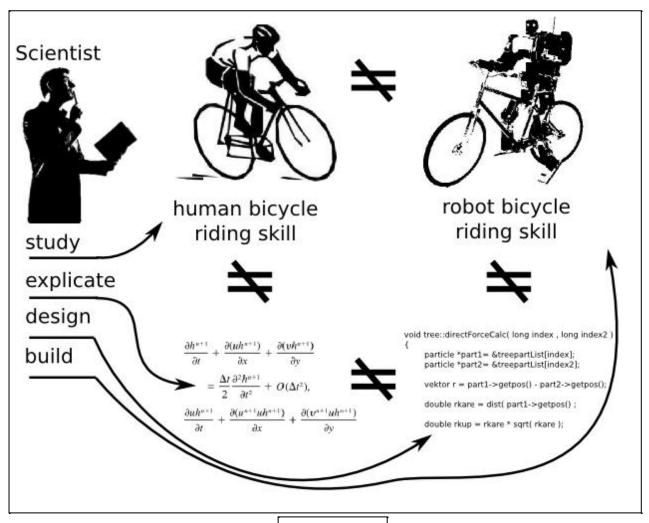


Fig. 1

DETERMINISM DETERMINED

Jasper Doomen

Abstract

In order to find a convincing position in the 'free will' debate, two sorts of determinism are distinguished. The merits of encompassing determinism, which is determinism as it is usually understood, and individual determinism, which focuses on the agent, are brought to the fore. The existence of encompassing determinism cannot conclusively be proven, but it may be demonstrated, on the basis of individual determinism, that actions come about in a determined way, leaving no room for 'free will'. In order to facilitate the discussion, recent scientific developments in such diverse fields as, e.g., quantum mechanics and neuropsychology are incorporated. My primary aspiration here is to present a consistent and nuanced viewpoint, not eschewing divergent conclusions.

Key words:

Free will, determinism, factors, neuropsychology, quantum mechanics

Introduction

The question whether a 'free will' can be said to exist, especially when one considers the implications of determinism, is, by now, a classical one, and has led to many diverging answers. In this article, I contribute to the discussion by pointing to a new way to counter some of the difficulties one finds when trying to reach a consistent position. In order to be able to reach conclusions that are consistent with scientific observations, I have incorporated a number of relevant recent developments.

The main problem in the debate seems to be that it is unclear whether processes develop in a determined way and how this is relevant for the existence of a 'free will'. In section 1, I present some difficulties involved with the usual concept of determinism. which Ι call 'encompassing determinism'. A number of scientific developments, the most important of which is quantum mechanics, have given rise to some doubts with regard to this model. I shall evaluate these and their relevance. Subsection 1.2 is focused on the question whether the position of encompassing determinism is tenable. Kant's point of view is both influential and illustrative in a number of respects; accordingly, his position merits special attention. Encompassing determinism, it will be pointed out, cannot be proved or refuted.

This does not, however, mean that a 'free will' is proved to exist. In order to deal with this matter, I

present, in section 2, a second concept of determinism, 'individual determinism', in which agents are the focal point of attention. If encompassing determinism should be given up, one may still investigate the individual situations and find out whether these are determined.

To that end, I concentrate on the factors that may be indicated as the influencing or even determining elements for behaviour, again seeking the link with current scientific developments. Factors are the things that influence actions if they are present and are even decisive if they are the only elements involved.

This means that there is no use in talking about 'indeterministic factors'. 'Factor' originally (in Latin) means 'creator'; factors, then, decide (determine) actions if they are the only elements involved, so that an indeterministic action would have to œcur in a (supposedly) factor-free realm. Subsection 2.2 addresses this issue, which is also concretized there to some extent. In order to accommodate both the incompatibilist and the compatibilist perspective, an analysis of the meaning of 'free will' is also required. By integrating these aspects, I finally attempt to reach a consistent and balanced conclusion.

1. Encompassing determinism

1.1. The confrontation with modern science

'Determinism' is often understood as the position that every event is determined to occur as it in fact occurs, or, put differently, as '[...] the thesis that there is at any instant exactly one physically possible future', or as '[...] the thesis that there are comprehensive natural laws that entail that there is but one possible path for the world's evolution through time consistent with its total state (characterized by an appropriate set of variables) at any arbitrary time.' This sort of determinism is referred to as 'encompassing determinism' in this article.

There are those, sometimes called hard determinists, who include human actions in this process, indicating that 'free will' is incompatible with this state of affairs. Others, sometimes called libertarians, maintain, as the hard determinists do, that 'free will' is incompatible with determinism, but draw a different conclusion, namely that determinism must for that reason be wrong. That is to say, it may be possible that determinism is the correct view for a number of processes (e.g., in some circumstances

the trajectory of a tennis ball being thrown away), but the limits of its explanatory value are encountered once human actions are involved. Human actions, or at least part of them, are rather constituted on the basis of a process that is generated by human beings themselves.

Finally, there is the compatibilists' view; they hold, simply put, that 'free will' and determinism go together; determinism may even be a condition for a 'free will' to be possible at all. In this section, I will explore the claims of this sort of determinism in the light of some important scientific movements. In the second section, another sort of determinism is discerned, which may prove to be required for a convincing account of determinism and 'free will'.

A great number of arguments have been put forward in order to invalidate any of the above-mentioned positions. It is useful to inquire whether recent scientific developments may contribute to clarifying the issue and whether one of these approaches may thus prove to be the most credible. After all, if one wants to apply the theory to the actual situations one encounters, '[...] the 'Existence Question' for free will [...] cannot be finally settled by armchair speculation, but only by future empirical inquiry.'

The Newtonian paradigm displayed a relatively straightforward interpretation of physical events; these were considered to be determined to occur as they occurred. The rise of chaos theory and, in particular, quantum mechanics, has led to a number of critical questions, proving it difficult to cling to determinism on the same scale as before. Quantum mechanics focuses on the micro-level, where the familiar concepts and views cannot be applied. At this level. it is argued, the relevant 'objects'-neutrons and protons, or even (more fundamentally) quarks—do not obey the natural laws acknowledged to be decisive hitherto. The question naturally arose whether the deviations point to an inherently indeterministic system, or can still be interpreted deterministically, albeit that one would not be able to observe the determinism.

The first stance is taken in the Copenhagen Interpretation. The apparent conflicts with the familiar, macro-oriented, approaches manifest, in this interpretation, a fundamental indeterminism. Some opponents of this view, who take the second stance, appeal to 'hidden variables', pointing to an alleged, underlying, as yet undemonstrated, determinism; they are unable to demonstrate this apparent determinism, but cannot cope with a theory that diverges from this basis. Obviously, such a strategy is not the most compelling one: electing something simply because the alternative is unattractive is clearly an argument

ad ignorantiam, especially if that alternative is—at least partly—underpinned.

That doesn't mean that the first option must be the right one. First of all, it is not clear how one might conclude the existence of a 'free will' from the fact that things are undetermined; this just seems to indicate that it is not yet known what will-necessarily-happen. More is needed for a 'free will' to exist, if this is possible at all (which, I think, is doubtful, as I will point out in section 2). After all, if things are fundamentally undetermined, this might still not provide any basis to decide one's actions. Whether or not it is a necessary condition for a 'free will' to exist that things are not determined, it is not a sufficient one. It just demonstrates the presence of more than one option, not that one may oneself decide which of the options is realized. Furthermore, it is important to distinguish determinism from predictability. One may dub the position that the development of a physical system can be predicted accurately 'epistemic determinism' and point out its shortcomings without this having consequences for physical determinism. This is demonstrated in chaos theory.

It is, then, conceivable that determinism is the correct view while it is impossible for human beings to observe this; to them, processes may appear chaotic or indeterministic. The Newtonian perspective, dealing with the macro-level, may be consistent with the idea that prediction is—in theory—possible, but the results produced by quantum mechanics and chaos theory make such an outlook difficult.

1.2. The Kantian perspective

Kant, the epistemological part of whose philosophy is embedded in a Newtonian framework, maintains that it can't reasonably be demonstrated that a 'free will' exists. It can both be argued that there is only causality through the laws of nature and that there is, besides such a causality, a causality through freedom. Kant calls the contradiction found by reason an antinomy of pure reason. His approach to nonetheless salvage human freedom can only be understood against the background of his distinction between phenomena and things in themselves (or the thing in itself, or noumenon; Kant uses these wordings interchangeably); in his view, on the basis of experience, one can merely acquire understanding insofar as this is realized by space, time, and the twelve categories he discerns, making it impossible for a human being to know anything about things in themselves. It cannot, then, be shown that human beings are free; in fact, on the basis of experience alone one would infer that there is no room for freedom.

Man is to be considered to be both an empirical subject and a thing in itself. At the noumenal level, he is considered not to be subjected to the determinism observed at the phenomenal level. Freedom is a transcendental notion, which means that it is not restricted by the laws of nature. It is important to realize that Kant's position, if one should (anachronistically) want to qualify it in terms of the current approaches, is incompatibilistic (libertarian), although a compatibilistic interpretation may seem tempting, as he defends both determinism and a 'free will'. His incompatibilistic viewpoint is clear from the way he describes the contrast in one of the possible positions: 'There is no freedom; everything in the world occurs by contrast merely through laws of nature.' The fact that two levels are at stake also pleads for an incompatibilistic interpretation.

Apparently, determinism and 'free will' mutually exclusive. Kant's solution suffers from his libertarian outlook. If man is to be regarded as both a determined phenomenal being and a noumenal one, can it be maintained that one being is concerned? It seems that this being unites two characters, in such a way that the subject should be considered a sort of split personality. One may at least adduce that it is difficult to grasp how an action should be perceived from these two perspectives without arriving at this conclusion. More importantly, however, Kant doesn't clarify how a 'free will' is possible; he merely shifts the problem to a higher level, where it remains unsolved. Of course, Kant doesn't profess to (be able to) provide a conceptually satisfactory answer here, but that doesn't mean that criticism should not be possible.

The greatest merit of Kant's exposition lies in his pointing out the limitations of experience in deciding the issue. Ironically, his search is one for indeterminism in a world which experience shows to be determined while the 'hidden variables' stance in quantum mechanics posits determinism in an observationally undetermined one.

In a similar vein, one may state that '[...] scientific enquiry [...] can never furnish us with a complete account of what it is to be a human being or why a human being acts as he does. It will still be reasonable to investigate the working of the body and, in particular, the brain, and to produce mechanical models of the mind. Only, no mechanical model will be completely adequate, nor my explanation in purely physical terms.' This opinion resembles Kant's. Limits with regard to the significance of human existence are drawn, leaving room for a non-scientific explanation of certain aspects. It is not explained what it would mean to be

free, so that the room which has been created is not actually used by rendering a positive account.

Can it, then, perhaps be scientifically demonstrated whether a 'free will' is possible? Quantum mechanics the (at least in Copenhagen interpretation) seems to point to indeterminism. As Van Inwagen puts it: 'Actual matter, matter that obeys the rules of quantum mechanics, is intrinsically incapable of carrying within itself the perfectly determinate dispositions to future behaviour that strict determinism requires.' Still, even at present there are relevant deterministic elements one may point out: 'The most significant empirical objections to agent-causal libertarianism challenge its capacity to accommodate our best natural scientific theories. [...] [G]iven our scientific understanding of the world, how could there exist anything as fabulous as an agent-causal power?' Both determinism and indeterminism can be argued and backed up with scientific references.

Kant's stance (not the appeal to transcendental freedom but the fact that reason can't decide which line of reasoning is correct) appears appealing in this light. Perhaps it should be concluded—with Schrödinger—that it is impossible to decide whether (encompassing) determinism or indeterminism is the correct view on empirical grounds.

Only incompatibilism has received attention up to now. For a compatibilist, determinism is not a problem, and even a requisite for a 'free will' to exist, so may this position still be tenable? The pivotal issue, how a 'free will' can exist, is not resolved here, either. Compatibilists need to clarify how a 'free will' may exist, just as this is incumbent on the libertarians. The notion itself is problematical, however; this will receive further attention in section 2 (where the viewpoints of some compatibilists will also be discussed).

Finally, it is necessary to remain critical of quantum mechanics and chaos theory as well as the other theories currently deciding the scientific panorama, particularly with considerations such as Kuhn's in mind. The most viable approach would, in my opinion, be a pragmatic one, accepting results that prove to be useful, yet ever prepared to abandon the current theory once a more adequate one is encountered.

The title of this section is 'encompassing determinism'. This has the same meaning as 'determinism' in general (cf. the beginning of subsection 1.1). *This sort* of determinism doesn't seem to be provable or refutable, at least not by me, and I venture to suggest not to be alone in this limitation. In order to do so, one would have to be able to ascertain whether the physical and other

processes develop in the same way in (imagined) possible worlds with the same starting position as the present world. Should one have access to a sufficient number of such worlds and observe that they, or at least some of them, develop alternatively, determinism would be refuted; should it be observed, conversely, that they all develop in the same way as the present one, it would be proved (forgoing here the problem of induction). Encompassing determinism will remain an inscrutable doctrine, just as its opposite, indeterminism, as long as this incapacity remains.

The question whether the existence of a 'free will' can be consistently maintained cannot, then, be resolved at this level; in other words, encompassing determinism cannot be proved or refuted unless knowledge that (at least at this moment) seems inaccessible becomes available. That doesn't mean that the matter should be disposed of by resorting to a suspension of judgment, or at least not yet, for it is conceivable that another sort of determinism might shed some light on it. This will be investigated in the next section.

2. Individual determinism

2.1. Neuropsychology's import

One may evade the question, insoluble so far, whether encompassing determinism is tenable or not by focusing exclusively on the subject. Rather than speculating on the necessity of physical and other processes in general, one may inquire the way the subjects' actions originate. Recent research in neuropsychology provides some interesting results. Libet investigated subjects' reactions to stimuli in order to assess the role of the unconscious. They were asked to flex the wrist whenever they felt like doing it; this should happen spontaneously. Additionally, they had to indicate what the position of the spot on an oscilloscope 'clock' was at the time of moving. It appeared that the voluntary act is preceded by a 'readiness potential': the voluntary, conscious act is actually 'prepared' and decided unconsciously.

This might imply that there remains no room for a 'free will'. This stance seems all the more likely if additional data are discounted in the analysis. Soon et al. write, reacting to Libet's and other findings: '[...] the earliest predictive information is encoded in specific regions of frontopolar and parietal cortex, and not in SMA [(the supplementary motor area)]. This preparatory time period in high-level control regions is considerably longer than that reported previously for motor-related brain regions [...].'

Libet doesn't endorse the conclusion that a 'free will' is absent. Even though the act (the response)

arises on an unconscious basis, so that there is no 'free will' at this stage, one may (consciously) rescind the original (attempt to) act: 'Conscious-will could [...] effect the outcome of the volitional process even though the latter was initiated by unconscious cerebral processes. Conscious-will might block or veto the process, so that no act occurs.' This veto is subsequently considered to prove the existence of a 'free will': '[...] the conscious veto is a phenomenon that provides an opportunity for free will to act as a controlling agent in voluntary action.'

Is the fact that this veto arises consciously sufficient to conclude the presence of a 'free will'? Libet's data, even if one takes the conscious veto into account, leave both options—the existence and the non-existence of a 'free will'—open. Mele's distinction, in interpreting Libet's results, between wanting something on the one hand and intending or deciding to do it on the other, may be warranted: 'Wanting to do something is compatible with being unsettled about whether to do it.'

The following observation. however. problematical: 'Processes have parts, and the various parts of a process may have more and less proximal initiators. A process that is initiated by an unconscious urge may have a subsequent part that is directly initiated by the conscious formation or acquisition of an intention. 'The 'conscious self"—which need not be understood as something mysterious—might more proximally initiate a voluntary act that is less proximally initiated by an unconscious urge.'

The '(conscious) self' is, I think, a problematical if not, indeed, mysterious notion, but I won't go into that here. For now, it is important to focus on the process. The fact that two initiating processes ensue does complicate the issue, but it is not clear, even if they both exist, how a 'free will' is possible. The same problem is present in Dennett's approach. He says: '[...] our free will, like all our other mental powers, has to be smeared out over time, not measured at instants.'

Neither Libet himself, nor these or the other interpretations I know decisively prove the existence of a 'free will'. The reason for this is that it isn't clear on what basis the veto, or generally any act that is supposed to be explained by a 'free will', comes to pass, and why something other than a 'free will' should not determine the decision.

At the unconscious level, factors are considered to be decisive for an outcome; at the conscious level, this may be thought to be different, as the agent has (*ceteris paribus*) the freedom to act in more than one way. This was exemplified by the possibility to

veto in Libet's study: the subject could perform some act or refrain from it. This freedom is also present in a number of everyday situations, e.g., when one has a limited amount of time at one's disposal and must choose between two activities, such as studying for an exam and doing something else one would rather

Still, it can be argued that this freedom is merely freedom of *movement*; nothing more than this is demonstrated. Freedom of movement means simply that there are no obstacles in acting, so that a stone (presumably not being able to act upon a 'free will') that is pushed down a hill, subsequently rolling down unhindered by any objects it might encounter, is free in this sense, just as (if the example just mentioned is insufficient since the stone may not be said to act) an animal that has more than one option to act is, even if it should be completely determined by factors such as its instincts.

A common sense-approach easily confuses freedom of movement, which is observed, and a 'free will', which isn't. Perhaps, then, what seems to be a 'free will' should be qualified differently. As Wegner puts it: 'The real causes of human action are unconscious, so it is not surprising that behavior could often arise [...] without the person's having conscious insight into its causation.' The reason for this may lie in a sort of wishful thinking: 'It may be that the illusion of conscious will is persistent because we honor so deeply what people mean to do that we readily overlook the causal forces that have impinged on them to force their action.' The finest formulation is perhaps Spinoza's: 'People are mistaken in thinking they are free. This opinion consists entirely in this, that they are conscious of their actions, yet unaware of the causes by which they are determined. This, therefore, is their idea of freedom: that they don't know any cause of their actions. For what they say, that human actions depend on the will, are words of which they have no corresponding notion. No one knows, after all, what a will is and how it would move the body; who discuss something else, and devise seats and places for the soul, are wont to give rise to laughter or nausea.' (Spinoza appears to problematize even the notion of 'will'.)

In this line of thought, there are merely decisive factors; a 'free will' would be a fictitious additional entity. This view is appealing. 'Free will' is, in my opinion, a vague notion. If one should want to express the freedom (of movement) of the will, i.e., the fact that the will is not necessarily directed at one object rather than another, one might speak of a free will. This could only be refuted by an appeal to encompassing determinism, and, as I maintained in

section 1, it seems impossible to prove this correct (or wrong). (Besides, if encompassing determinism were proved correct, a 'free will' would *a fortiori* be ruled out, so that the issue would be solved at an earlier stage than the one presently under discussion, rendering a moot point.)

This is, however, not how the notion is usually understood. Irrespective of the many attempts to explain it, it may be that the notion isn't clear or consistent at all; I, for one, am unable to conceive of a more elaborate freedom than freedom of movement (of the will or otherwise). In that case, it is not merely libertarianism that is struck, but compatibilism as well. Compatibilism doesn't suffer from the fact that it would have to explain how a second species of causality, apart from the determined process with which one is familiar, is possible, but its adherents are no less obliged to clarify their use of 'free will' than their fellow proponents of this notion, the libertarians. Even if actions on the basis of a 'free will' are supposed to be understood as part of the necessary process, it must still be clarified how this situation differs from the one defended by hard determinists.

One may also start the inquiry on the basis of the data with which one is familiar. Rather than trying to prove that a 'free will' supervenes apart from the factors that play a part in actions, one may begin at the other side of the spectrum and focus on these factors. The question then arises what their scope is and to what extent their presence may be said to oust that of a 'free will'.

2.2. Factor-determined agents

The benefit of starting with the question to what extent the factors that are present in behaviour are decisive is obvious: they can be observed. One doesn't begin to inquire the notion 'free will', which is a contested concept (if it is a concept at all), but starts with elements that can be accounted for. The question which of these have the greatest influence still gives rise to many debates, but at least there is some consensus concerning their presence. Of course, science marches on, and as more knowledge is gathered on the factors, the viewpoints may shift—perhaps even leading to the acknowledgement of as yet undiscovered factors—but that bears no relevance to my inquiry.

Factors are observable (the fact that factors are present can be noticed). The actual factors that influence the behaviour of people and other beings, however, are difficult to ascertain. At present, genetics is a successful approach, rendering genes as factors at least partially considered to be the cause of one's actions. I cannot fully assess to what extent this discipline is more convincing in revealing

why beings act as they do or are as they are than an alternative—since I cannot look into the future and know whether it will be replaced by an even more aptly constructed (and successful) scientific view—but as it merely serves as a possible concrete approach, this is not crucial.

If genes are decisive for the coming about of an action in that, although one may think one makes a choice independently, it is in fact determined by genes, a 'free will' is excluded. This is a relatively straightforward model. Some deem it straightforward. Dawkins emphasizes the import of causes environmental causes: 'Genetic environmental causes are in principle no different from each other. Some influences of both types may be hard to reverse; others may be easy to reverse. Some may be usually hard to reverse but easy if the right agent is applied. The important point is that there is no general reason for expecting genetic influences to be any more irreversible than environmental ones.' Elsewhere he puts it as follows: 'Genes have no monopoly on determinism.'

One may even, as Looren de Jong does, point to genes between relations and environmental influences: '[...] The phenotype is not precoded in the genes; rather, development is a dynamic, interactive process, involving all sorts of top-down and bottom-up causal influences between genes, the whole organism and the environment.' Pinker's argument is similar: 'People sometimes fear that if the genes affect the mind at all they must determine it in every detail. That is wrong, for two reasons. The first is that most effects of genes are probabilistic. [...]. The second reason that genes aren't everything is that their effects can vary depending on the environment.' (Pinker also deals with the connection between determinism and 'free will', but this determinism is encompassing determinism as I have defined it.)

There is some merit in these remarks. Still, all these authors do is unnerve the dominant role of genes in the coming about of actions. The environmental elements they mention are not demonstrated not to be factors. If environmental factors are indeed involved, as they argue, the process leading to an action is more intricate than one based on genes alone, but no less determined. If an action is partly based on a genetic input and partly on, e.g., one's education (or, more generally, one's upbringing), there is still only one way to act: the course of action 'dictated' by the union of genes and the education. A 'free will' no more presents itself than in the sole operation of genes.

Factors are supposed to influence behaviour; if a 'free will' is present, their influence is limited, but if it

is not, they don't merely influence behaviour but determine it. In other words, only if a factor-free realm is acknowledged to exist, in which a 'free will' can play its part, can behaviour be said to be undetermined. The compatibilists' position is a bit complicated here, since in their view a 'free will' and the factors cover the same course of actions, but even they will have to grant the existence of such a realm in order to back up their claim that a 'free will' exists. In the absence of such recognition, they would in fact be hard determinists.

I started this subsection by saying that factors can at least be observed. This is somewhat misleading, as it is not clear that the elements that are observed can actually be qualified as factors—after all, future findings may prove the current results not to suffice, and, apart from that, there isn't even agreement at present with regard to the question which are the crucial elements. One must be careful and avoid the circle of concluding that the elements that are observed with actual (human) beings are factors on the basis of one's having characterized them thus. Whether elements are factors must be decided on the basis of (scientific) observations. If it has already been concluded that a being is a factor-determined being, this issue is not problematic, since it only pertains to the question which factors are decisive.

As this section does not deal with this issue (the issue *which* factors may be considered decisive), but is rather focused on the question *whether* factors (irrespective of their nature) are decisive, my attention lies elsewhere; the empirical findings were merely presented in order to give concrete examples.

Suppose that factors are entirely decisive for the coming about of an action. The agent's actions can then (tautologically) be said to be factor-determined. The term 'agent' should perhaps not even be maintained for a person, as Priestley argues: '[...] To [the *cause* of the choice] it is that we ascribe the *agency*, or *determining power*.' I have, however, clung, pragmatically, to the word 'agent' here—as does Priestley himself—without suggesting that this agent (a person) has any determining power.

At any rate, there would only be—individual—determinism: the agent would not be able to alter the action that is to ensue; at the individual level, at least, the process is a necessary one. The problem is, of course, that the question whether actual agents and agents' actions are factor-determined is an empirical one, which cannot be resolved with an a priori analysis. Still, the analysis at least clarifies matters and forces the 'free will' defender to explicate his position: it is incumbent on him to clarify how a 'free will' would be involved in the coming about of actions apart from any factors.

Any room left presents a possibility to argue the existence of a 'free will'. Such a stance would, however, I think, be hard to take. As was pointed out in subsection 2.1, 'free will' is not a clear notion. It merely seems to point to freedom of movement of the will to be directed at an object. One cannot, on this basis, conclude the existence of an additional 'freedom' of the will, a second sort of freedom. Consider the example given in subsection 2.1. Someone has an exam in a few days. He can spend his time preparing for it, or be occupied with activities more to his liking than that. Assuming he can guide his actions on the basis of freedom of movement, one might say that his 'free will' is involved in choosing which of these two paths to follow. But on what basis would this occur? It is difficult, if possible at all, to see how a 'free will' would decide an action.

On the other hand, one may point to various factors that may be present: he may have been brought up in such a way that he will act in a disciplined way (or not), or there may be some innate factors (perhaps genes), or a combination of nature/nurture may explain his actions. He may be said to act from a certain character, but that isn't helpful to the 'free will' defender, as the character is, one may adduce, itself the result of a process shaped by factors (or rather, perhaps, itself a factor, for if a character were merely the *result* of factors, this would still leave the option that a character exhibits 'free will').

It isn't clear, then, how a 'free will' is involved in the coming about of actions. One may object that an argument *ad ignorantiam* is involved here. After all, the fact that the presence of a 'free will' is not demonstrated leaves open the possibility that it should exist. That is correct, but, first, the onus to prove its *existence* is (conversely) on the defenders of the existence of a 'free will', and, second, the semantic doubts that were raised, namely, whether 'free will' has a meaning at all (apart from freedom of movement) strike the issue at the core.

Still, it is important to be nuanced. It is clear that factor-determined agents are not free (except in the sense of freedom of movement), since their actions are determined by factors. This is an a priori given: it follows from the definition of 'factor-determined agent'. The question, however, whether actual agents, in particular human beings, are such agents, is an intricate one: '[...] The human organism and human behaviour are such terribly complex things, and so little is known about the details of that terrible complexity (in comparison with what there is to be

known), that it is hard to see why anyone should think that what we do know renders a belief that human behaviour is determined reasonable.' This observation is valuable but should, in my opinion, be supplemented by saying that it is hard to see why one should conclude, from this complexity, that (individual) determinism is not the case.

This question cannot be resolved a priori, and perhaps not even a posteriori. I add the latter phrase since 'free will' defenders have the option, in spite of scientific evidence to the contrary, to claim 'free will' to lie at the root of an action. The apparent impossibility to show this has not stopped them before, and will presumably not be considered a decisive objection in the future.

3. Conclusion

I have tried to show the consequences of recent scientific developments for the way the question whether a 'free will' can be said to exist should be answered. In section 1, I argued that determinism as it is usually understood, which I dubbed determinism', 'encompassing cannot be demonstrated, but is not falsified by the results produced by quantum mechanics, either. Quantum mechanics and chaos theory limit the possibilities to predict the occurrence of specific events, but that doesn't mean that determinism is absent; it just means that the observer is unable to ascertain it, if it is in fact present. The presence or absence of encompassing determinism can't be demonstrated as one is only acquainted with the processes that occur in the world one knows; possible worlds may be imagined, but merely provide laboratories for the mind, in which actual scientific experiments cannot be conducted.

Section 2 presented an alternative to circumvent this impasse. This consists in suspending judgment whether encompassing determinism is the correct view and focusing on the individual actions. To that end, I have, in subsection 2.1, evaluated Libet's neuropsychological experiments. In my opinion, the research doesn't produce the results needed to support the view that 'free will' plays a part in the actions of human beings. The impressive results obtained in genetics, finally, should not tempt one to conclude that these are (on their own) decisive; after all, environmental factors are also to be taken into consideration, and an even more adequate approach, perhaps partly consistent with genetics, might make its appearance in time.

This means that I cannot with certainty say that human beings have no 'free will'. For me, 'free will' has no meaning, except for the freedom of movement of the will, but I want to be careful and not apply my a priori findings to an empirical domain.

In order to restrict myself to that which I can maintain, I have concentrated on a factor-determined being: as long as one acts on the basis of factors alone, 'free will' has no part in the coming about of an action. This does amount to a practically tautological stance, which provides the position its strength and weakness at the same time. It finds its strength in that it is a priori and needs no empirical validation. The weakness consists in the fact that the findings can't straightforwardly be applied to human beings (or even other beings than these). Rather than wildly applying them without the proper basis, I have opted for a careful but solid approach. This doesn't make the article a strictly academic one, though. The starting-point of the factor-determined being may be useful to empirical research in which it is considered whether actual beings have a 'free will' or not.

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ANTHROPOMORPHISM AND THE EVILS OF REALISM

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Abstract:

This paper argues that the problem of evil marks out a fundamental conflict between the abstract speculations of philosophical theology and the concrete demands of lived faith. Religious responses to evil and suffering do two philosophically important things: (1) they remind us of the cosmological framework needed to make sense of the language affirmative of God, and so they resist the demand for logical and ontological isolation characteristic of theological speculation; (2) they theologically and psychologically at odds with those who mistake analogy for literal description. Taken literally, talk about God, borrowed from our experience of personal relations, the world is transformed from natural reality into human artefact. Creation is reconstructed for our benefit: by an infinite Person for finite ones. Such realist literalism falsifies our experience of the world, so undermines the grounds of any inference to God, while simultaneously reducing God to a psychological projection.

1. Anthropomorphism and the evils of realism

When natural disasters strike, faith inevitably faces hard questions. The aftershock of earthquake and tsunami sees demands for explanations and justifications. 'Where was God?' we ask; 'how could He allow these terrible things to happen?' These are questions asked when scenes of devastation and human misery are still fresh in our minds; questions to which no response seems satisfactory. So said Austin Farrer. 'Taken in the grip of misfortune...we cannot reason sanely about the balance of the world' (1966b, 7). Philosophical reflection is bound to seem glib under such circumstances. Worse still, D. Z. Phillips observed, any justification might sound more than a little sinister (1981, 90-93). We may have been born into John Hick's 'vale of soul-making' (1963, 45-7)1 but even hardened philosophers will surely flinch from looking suffering innocents too squarely in the eye and declaring their tragedy was 'planned from eternity'.

What follows, then, is no solution to 'that terrible morass of muddled thinking which [also] goes by the name "the problem of suffering" (Farrer 1966a, 87).2 Instead, it concerns what that problem reveals about religion and theology. Primarily, that means their pragmatic foundations. This makes Farrer the ideal guide. Ever alive to the demands of faith and

philosophy, he was uniquely able to keep 'heart and head in dynamic balance' (Conti 1995, xvi). Hick called it 'rationality illuminatingly at work within the life of faith' (1972, xiii). This is because Farrer returned theology to the practices and traditions from which it arose. 'Whatever else the rational theologian may pretend to do, he will in fact be considering a question posed to him by religious belief; and he may as well be above board about it' (1967, 1). Wise counsel, for therein lie the richest philosophical and psychological insights.

Nota bene, this is no rejection of theological speculation. It is, at most, an attempt to privilege a mode of theological reflection that begins with the practice of faith and reaps the empirical rewards of doing so.3 Nevertheless, we would do well remember the words of W. H. V. Reade: 'the two tasks, the doctrinal and the practical, are inseparable' he said; 'on Christian truth depends Christian practice, while conversely, without the practice, the truth cannot be discerned' (1951, 191).4 There is, then, a vital interplay of praxis and theoria underpinning the whole theistic programme. In Farrer we find no rejection of that interplay but rather a reminder: the life of faith is not an enquiry into existence per se (or in se) as realists would have us believe. It is a response to questions both practical and urgent.

This affects how we understand J. L. Mackie's claim that theodicy is an essential feature of any theology (1994, 25). Mackie meant it as a challenge to the conceivability of God. It might also be construed as a demand that religious thought become (in Hegelian parlance) self-conscious of pragmatic foundations. Self-conscious too, perhaps, of the analogicality of its own language. Put simply, religious responses to evil do two philosophically important things. First, they resist the demand for logical and ontological isolation. Second, they are theologically and psychologically at odds with those who mistake analogy for literal description. In short, natural evil offers an important religious critique of the philosophical and theological realism currently dominating the field, exemplified here by Peter Byrne's 'innocent realism' (2003, 7).5

Furthermore, and *contra* Mackie, there may not, in fact, be a theological question to answer here, at least not in the traditional sense. Crucially, this is no attempt to write God out of Creation. It is still an exercise in natural theology.⁶ My aim, however, is neither to justify evil nor explain it away. It is simply

to enable religious thinkers to see natural evil in its proper light. Most importantly, perhaps, this may draw limits to what can meaningfully and reasonably be asked of both the theologian and the believer.

As suggested, the focus here is on so-called natural evil. Partly, this is because it is the more straightforward case and therefore more amenable to clear thinking. It also has the advantage of undermining some of the more obvious conflicts between naturalism and theism. More importantly, however, by first establishing a proper understanding of 'natural evil' we may see our way clear to developing the conceptual tools needed to address the question of moral evil.

To begin with, thought about natural evil is not a distinct branch of theistic speculation. It is (Farrer reminds us) merely 'a special development of the classical argument from our world to God' (1966b, 8). It gives direct and pragmatic expression to the basic cosmological intuition. Consider evil and we consider the workings of creation and providence. The question we ask is 'why did God create the world as He did and care for it (or not) as He does (or does not)?'

It is, moreover, our immediate interests that prompt us to look 'beyond' the world for 'an origin transcendent or divine'? (Farrer 1966b, 8). What has the most significant impact on human life? 'What but the mixture of good and evil?' (8). Thus, the believer's first question is not (as theologians often assume) 'why is there a world at all?' but 'why is it so and not otherwise?' Awe and wonder before creation come later, in moments of quiet reflection. Considering the human situation as a whole, however, such moments are comparatively rare. Like every other creature capable of sentience, we are most urgently pressed, not by the sheer fact of existence, but by its fragility. Those who care to look find a world rich in 'splendours...displayed dazzlingly bright, but astonishingly brittle and precarious' (8). This precariousness—rather than abstract notions of contingency—first provokes theistical speculation.

Have...[these splendours] nowhere a hold on reality more solid and more sure? Are they not rooted in an eternity behind the world? If our universe were the safe abode of its own highest glories, if the noblest constituents were secure from the evils which everywhere attack and corrupt them, the world might be God enough to itself; being what it is, it depends on God above it (Farrer 1966b, 8).

This is the cosmological framework within which the problem of evil arises. Divine action (or inaction) is our primary concern, the dynamic nature of creation our conceptual framework. To speak of glory and corruption is, in essence, to ask why any particular existent has the particular mode of existence it has.

The question is, 'how does a simple cosmological move become a theological liability?' The answer lies in the building blocks of our thought about God, in the person-concepts from which those thoughts are constructed.

Such concepts are essential to religious belief. They make sense of the language affirmative of God. Consider the divine predicates; those denoting the concrete relations of religious *praxis* tell the tale. God is the wellspring of love and the agent of our salvation. He is known as the guiding hand of providence and, ultimately, the author of creation. Such Godly extrapolations derive from our experience of human relations.⁷

Philosophically speaking, person-concepts close the epistemic gap between persons and their God by supplying the terms in which both Agent and Act may be understood. Put simply, 'to think about God is to think of living act,' and it is an act 'to which our own is the only possible clue' (Farrer 1967, 129). Crucially, Conti argues, without this clue the God-construct fails 'as an intellectual tool for making any special sense of the cosmological relation' (1995, 152). More seriously, perhaps, it fails as a practical tool for making sense of the glory and corruption of creation. Without the clue offered by personal relations, that is, the fundamental religious demand for providential care is rebuffed. If creation is not a deliberate, personal, act then ours is a world of arbitrary connections and random collisions: no God required. The faithful are duly abandoned to their fate. At best, perhaps, we might follow the scholastic route, holding out for what Edward Henderson calls 'the existence of God above and before all worlds, the life of God-in-God' (1999, 101).8 Without personal relation, however, this too is liable to put 'cosmological inference at risk by virtue of the Supreme Being's supreme indifference to any particular being' (Conti 1995, 152). Not just any particular being, this particular being: this being that suffers and strives to understand. Indifference is sharp; it cuts both ways. It undermines the fullest meaning of the life and death of Christ, the full-blooded relation of God to His creatures in becoming human, so runs against the salvific grain of that relation.9 How hope for redemption without the Other before whom we may come in supplication and repentance? Without a personal God, that is, what sense can be made of the life of faith as a dialogue between finite and infinite? This jeopardises the fundamental religious conclusion: made in the image of some caring other. If the Imago Dei finds no reflection in us, then religious praxis is stripped of

both purpose and meaning. Hence, Farrer asked 'what sense can there be in postulating a transcendent Other that is anything but person? What empirical relevance can it have?' (1967, 48). Faced with theological abstractions, Feuerbach answered: 'A God who does not trouble himself about us, who does not hear our prayers, who does not see us and love us is no God' (1957, 213).

The life of faith is personal (in every sense), Farrer insisted. '[T]he personal character of our relation with...[God] is the very form of it, not a metaphorical trapping which can be thought away while any substance remains' (1967, 47). The believer's relation to God is fundamental to lived faith and fully constitutive of its meaning. Person-concepts honour the demands of that relation, so offer a belief that is both thinkable and liveable.

As vital as they undoubtedly are, however, such concepts are only analogies. When handled carelessly, they undermine the theistic project. Most damagingly, perhaps, they may be mistaken for literal description. Ostensive definition may appear to reinforce orthodox doctrine, but it demands a correlation between reference and referent which analogy cannot supply. It puts an already strained analogical schema under greater tension, threatening to vitiate the cosmological format of any coherent theology. 'Confine the divine nature and action within the lineaments of a personality with whom you are (so to speak) in converse [Farrer observed], and the converse is stifled' (1967, 48). God is not literally a person, nor any other finite creation.

If the action of God is to underwrite creation, it must be universal. Conceive God as a person like you and me, however, and we reduce God to a finite agency capable only of finite effect. This 'naturalistic fallacy' (as D. Z. Phillips termed it) contravenes the logical grammar of religious thought (1981, 101). We cannot conceive of God as brute fact because 'God' means 'the most basic, most self-explanatory of beings there are' (1981, 17).

Theological literalism is not simply reductive, however. It is also anthropomorphic. This not only undermines the cosmologicality of 'God-talk'; by underpinning the problem of evil it sets in motion the deconstruction of theistic realism.

In *God and Realism*, for example, Peter Byrne argues that theodicy supplies the 'generic element' in all 'worthwhile conceptions of deity' (2003, vii).¹¹ Theism, he argues, is a 'response to the human perception of evil' (vii). It is characterised by a belief that there is 'a moral teleology to human life and the world, and there is some final good which consists in living in right relation to the source of this

teleology.'(vii) He concludes: 'the authentic religious response to evil...[involves] the hope that good will triumph over evil in the objective order' (134). The key word here is 'objective'. For Byrne is a realist, more specifically an 'innocent realist' (7). As such, he is committed to a belief in 'a world of things and properties existing ontologically and epistemologically independent of us' (8). Thus, Byrne's 'authentic religious response to evil' concerns 'an order of reality beyond or behind the apparent given order' (17).

Reference to an 'order of reality beyond' all conceivable reference inevitably faces considerable challenges. What is peculiar about this 'objective order', however, is its constitution by the physical furniture of the world, by 'chalk escarpments, oxygen, Scottish lochs and planets' (Byrne 2003, 67). This is the ontologically and epistemologically independent world of which evil is a part. On realist premises, then, the theist seems to be committed to claiming that these physical features are objectively, that is, literally, evil. This, however, seems like a prime example of the 'childish superstition,' the 'error-ridden, magical view of human thought and human language that Byrne attributes to those who reject realism (ix, 108-9).12 Insisting that the physical furniture of the world wherein evil is manifest is not itself evil will hardly help. First, we must ask what makes the realist believe that another 'force' or 'power' is really at work behind natural events. What evidence is there apart from the evil events themselves to justify such a distinction? Second, assuming the realist can answer this without abandoning monotheism, any appeal to evil forces at work behind natural events only strengthens the suspicion that he, too, is dealing in superstition.

In fact, Byrne has built his theodicy on a literal anthropomorphism. Concepts like 'good' and 'evil' cannot be predicated of those natural features of the environment which have neither the propensity nor the capacity for deliberate action. We describe persons as 'good' or 'evil', for example, because we can ascribe responsibility to them.¹³ The same cannot be said of oxygen. What oxygen 'does' is to fulfil its 'charter of function or scope of effect' (Farrer 1967, 111). It does so, not because it chooses to but because that is its operative mode, its existence. Oxygen is the collision and mutual modification of its constituents. It is recognisable as a particular set of relatively uniform phenomena. Oxygen is not an agency capable of choosing to be, for example, combustible.

Those anthropomorphic projections owe more to the psychology of theistic realism than to either philosophy or theology. Faced by disaster we look for pattern and order in the chaos. Fail to find it and we might be tempted to impose it: terrible things do not simply happen, they happen for a reason. If Freudian psychologist, Adam Phillips, is correct, the desire for reason and order represents a deeper yearning for determinism. Determinism, he suggests, is another name for paranoia (2006, 269). It is a defensive move designed to ward off the threat of atheism. The theist cannot concede that that there is no order in the universe without surrendering the grounds for any inference from world to God. Do so and they surrender all claim to have found purpose and meaning in existence. In short, they surrender their faith. The solution is not chaos in the 'true' order of creation but evil. The theistic realist is reassured by this: '[s]omeone has to know what's going on, and there has to be something going on' (Phillips 2006, 268). Belief in plots and conspiracies gives the religious life a sinister tone quite unlike the cosmological move with which we began. It is not divine action that concerns us here. It is our status as victims. This seemingly egoistic emphasis goes against the social grain of religious praxis: this believer is not concerned primarily with others or even an Other. To put the matter plainly, it is not salvation that interests us now, but our significance. As Phillips points out, '[p]aranoia is the self-cure for insignificance' (265 my emphasis). The aim of belief, then, is not to orient one's life towards God, but rather the other way round. For the 'paranoiac is at the centre of a world that has no centre' (Phillips 2006, 270).

As a psychological defence, this may prove reassuring. Philosophically and theologically, however, it is disastrous. The realist's unwitting transformation of natural reality into human artefact threatens to defeat theism. Worst of all, by falsifying our experience of reality, it defeats any reliable inference to a Creator.

Conceive the natural world in moral terms (Farrer remarked) and we pretend 'the world is what it is plainly not—the expression of manlike planning' (1966a, 76). We assume the world was created for the benefit of conscious personal agents by a Conscious Personal Agent. Such anthropomorphisms may begin with the inadequacy of the natural world. However, as a specifically moral idea, it entails unjustifiable claims about the putative purpose for which the world is inadequate. Furthermore, we ought to give some account of what might be more adequate for the job (whatever that job might be). According to Byrne, that is, the theist recognises that

the order of the world around them is not a moral order; it is indifferent to the achievement of human happiness and the realisation of human goodness; it presents itself as blind and indifferent to justice (2003, 17).

Nota bene, this cannot mean that human happiness is not the concern of chalk escarpments because, as a matter of fact, chalk escarpments do not have concerns. If it is to carry any metaphysical weight, 'indifference' here must itself be a moral evaluation. It means 'escarpments are blind to justice, but they shouldn't be'. Granting that, the question is 'Why are they blind?' The realist answers 'because there is evil in the objective order of things'. Religion, he claims, is our response to it.

At this point the realist's anthropomorphic projections become increasingly elaborate. Ask why the natural world is indifferent and we ask why God 'uses materials which are so largely irrelevant to his purpose, so frustrating'? (Farrer 1966a,73). Considering the alleged discord between human and natural modes of existence, we might even imagine that God's 'materials had got out of hand and defeated his artistry' (73). Assuming we know what 'artistic success' means in this context, that is.

We cannot seriously assert such knowledge. We cannot overlook the divine shoulder, pointing out the flaws in creation as it unfolds. Philosophers used to call that the 'God's eye view'. It is, however, logically and epistemologically inaccessible. Even Byrne concedes that our perceptions must fall infinitely short of God's; they are 'human, and therefore uncertain and limited accounts of what is so' (2003, 47).¹⁴ Nevertheless, dissatisfaction with the Creator's efforts is hardly rare. We have all, perhaps, felt that creation might be very nice if not for some inconvenient feature (just as we are sometimes tempted to think wistfully of universities without students). To create a world without volcanoes and earthquakes, disease and disaster, that is surely not beyond divine artistry.

We do not presume to suggest that anything is beyond the will of God. Unless it turns out to be nonsense. We would be wise not to allow religious hyperbole to mug our philosophy, however. So we shall not concede the point just yet; not least because here, realist anthropomorphism becomes another rationalist projection.

The suggestion that the natural world could do without this or that feature represents outdated physics predicated on outdated metaphysics. It assumes that particular features of the natural world can be removed or eliminated without effecting all the others. For this to be possible, however, those features must exist in ontological independence of one another. As Newtonian cosmology, this was the acme of scientific understanding. Whitehead

showed, however, it meant conceiving the 'ultimate constituents of nature' as their 'own private qualification' (1948, 135).

Such an existent is understandable in complete disconnection from any other such existent: the ultimate truth is that it requires nothing but itself in order to exist. But in fact there is imposed on each such existent the necessity of entering into relationships with the other ultimate constituents of Nature. But you cannot discover the natures of the relata by any study of the laws of their relations. Nor conversely can you discover the laws by inspection of the natures (Whitehead 1948, 135).

Whitehead called it the 'Doctrine of Imposed Law'. Farrer called it that 'great Newtonian fiction of a space-time continuum viewed from no point in space and no moment in time' (1967, 150).¹⁵ For process and personalist thinkers alike, it marks the 'fallacy of misplaced concreteness'. Newton mistook abstract concepts for actual entities so placed those entities beyond our epistemological reach. Put simply, corpuscular materialism has no corollary in actual or possible experience. The entire diagrammatic fiction undermines the foundations of epistemology: the correlation of object known with knowing agent.

This threatens cosmological theism in two ways. First, by positing creation constructed from inert matter, it rebuts the activist premises underlying cosmological inference. Second, by isolating knowing agents from objects known, it breaches the epistemic connection that the coherent formulation of those premises demands. Otherwise put, discrete 'reals' can be objects of neither activity nor experience so cannot provide grounds for conceiving God as Agent of creation.

Real being, however, is no abstract concept. It is 'disturbance effect;' fully interactive (Farrer 1959, 235). In a Latin phrase, *esse est operari*. This defeats the logico-ontological isolationism of realist metaphysics. It means actual existents are mutually conditioning forces: they are in and as the reciprocal interferences which constitute those forces. ¹⁷

The apparently solid and stupid lumps of physical matter are, in fact, nothing of the sort: they are really made up of infinitely complicated, minute rhythms of active process, without which process, nothing would exist at all (Farrer 1972a, 40).

This insight is a mainstay of the biological and environmental sciences. It is also creation in a (physicalist's) nutshell. It means the processes constituting physical nature are not merely contiguous, they are co-dependent. Subtracting particular processes effects the entire manifold. As environmental scientists are keen to point out, the

consequences of interfering with nature might prove dire

In describing the problem of natural evil, Michael Tooley notes that it still ought to be possible to alter the 'boundary conditions' while maintaining the basic structure and laws governing existence. (2010, section 7.4).

[A]n omnipotent being could create a world which had the same laws of nature as our world, and which contained human beings, but which was devoid of non-human carnivores. Or the world could be such that there was unlimited room for populations to expand, and ample natural resources to support such populations (Tooley 2010, section 7.4.).

Regarding the second point, one might wonder what Tooley would consider a violation of natural laws. The unlimited expansion of the world breaches Laws of Conservation of Mass and of Energy and the Second Law of Thermodynamics. Of course, such laws may be fundamental articles of physics but they are not metaphysical entities 'laid up in pickle for future contingencies nowhere yet exemplified' (Farrer 1960, 76). They are probabilities extrapolated from empirical observations and the calculations based upon them. It follows that altering the structure of the world will effect them. Any laws obtaining will represent different probabilities extrapolated from different observations. In short, the physical constituents of the world need to change quite radically to accommodate that expansion. This would no longer be a world of earth, air, and water, for these substances do not function in these ways. Perhaps God should have created earth, air, and water that did behave in these ways. But now we are no longer talking about earth, air, and water. God might create liquid capable of infinite expansion. Whatever this substance might be, however, it is not water for it would not be constituted by hydrogen and oxygen. Should hydrogen and oxygen be modified accordingly, then we are not talking about hydrogen and oxygen but some other chemicals. Put simply, when Tooley asks why God could not create a world with 'unlimited room for populations to expand', he is asking why God did not create a different world entirely.

If, on the other hand, we wonder why God created water as He did, we should remember how vital water is. There would be no life on this planet without it; that goes for earth and air too. Certain knowledge of the divine Mind may be too much to hope for, but it seems reasonable to suggest that God desired a living world. We have no grounds for supposing this could be achieved with any other combination of physical elements.

This is not simply a matter of maintaining natural laws. It is a matter of avoiding the potentially catastrophic effects any changes could have on the processes constituting the natural world. Take Tooley's first point. He asks whether God could have created a world 'devoid of non-human carnivores'. Perhaps, but only at the risk of destabilising the evolutionary structure of creation. The natural world is not made up of independent taxonomic units. The billions of species inhabiting this planet did not evolve independently of their environment. Carnivores are part environment and have played their part in the evolution of other species. In Whiteheadian parlance, that is the very principle of process. '[H]ow an actual entity becomes constitutes what that actual entity is' (1978, 23). And 'how an actual entity becomes' is a matter of environment. Conti put it like this: '[n]o actualities without full and proper integration with other actualities, themselves in the process of becoming' (1995, 211 n9). Real 'being' is a participatory affair; it co-opts the entire nexus in which it is enacted. All actualities are, therefore, co-determinants.

Consider, then, the consequences of removing carnivorous co-determinants from this nexus. Without predators, the herbivore population rapidly expands. Vegetation, an integral part of the ecosystem, is consumed at an incredible rate. Tooley's world is a world of herbivores procreating with abandon, voraciously devouring every leaf and blade of grass to fuel the process. Human beings, of course, only appeared two hundred thousand years ago. Dinosaurs ruled the earth approximately two hundred million years ago. This suggests that the world would have been reduced to desert long before human beings—if they existed at all—took control of the herbivore population. Furthermore, an inevitable consequence of digesting vegetable matter is methane production. Thus, without carnivores, life on earth might have been extinguished by a great and terrible wind many millennia before human beings arrived on the scene.

Again, we assume that God desired a living world. To achieve this without carnivores would involve significant modifications to herbivores. Would these creatures still be herbivores? Would they, in fact, be a whole new class of creature? Suppose they are, in some sense, still herbivores but suitably modified. That, too, will have its effects the rest of the environment. Further modifications will have to be made to accommodate these 'herbivores'. Those modifications will require further modifications. Very soon we will not be talking about our world with

minor modifications. We will be talking about a different world altogether.

The question, then, is 'why, if God wanted to create a different world, did He not simply do so?' That is not a question we are equipped to ask or answer. Put simply, we have attempted to judge what would count as 'suitable modification'. And we have allowed a misplaced confidence in theological literalism to fool us into thinking we are capable of doing so. Such speculations are bound to overreach any available 'evidence'. They tempt us to go beyond the inferential grounds supplied by actual experience.

Consider any range of actual creatures in all their intensity of being, their intricacy of action, their mutuality of relation; and then think of the divine appointment on which their existence rests. Think of the will that can will such things, and you may experience the awe which authentic deity commands. But speculate on the reason why such-and-such existences have been appointed rather than others, and you fall into a silly, heathenish mythology, with no savour of godhead in it (Farrer 1966b, 75).

We cannot know what features of creation are needed because we cannot know what they are needed *for*. The details of 'divine planning' are bound to escape us. We suppose there is a 'plan', a reason for creation (though we may not be able to apprehend it). Whether such suppositions do not collapse into realist paranoia depends on whether we interpret the elements of creation as moral or natural realities. As we shall see, the latter course is preferred, not least because the former seems to lead to either accusing volcanoes, for example, of deliberately exploding, or of accusing God as creating them as some sort of trap.

We must suppose that creation was a deliberate act and deliberate acts, as we experience and understand them, are to some purpose whether we apprehend it or not. That is a basic theistic premise and corollary of the theologian's use of personal analogy. But it remains an analogy and beyond the continued actualisation of that 'intensity of being', we have no clue. 'If we ask the question 'O God, why did you make such a world as this?' we do not know the meaning of what we ask, because we cannot conceive of the conditions, or rather unconditionedness, of the creative choice' (Farrer 1966b, 75). In short, we cannot imagine all the alternatives, the other possible worlds, which might have been.

Thus, the realist anthropomorphism which transformed the world into a human artefact terminates in the emptiest of abstractions. The logic of other possible worlds is a theological and epistemological dead-end. '[S]uppose the general

nature of the world or of ourselves otherwise' Farrer argued, and we abandon ourselves to 'a pitiful abstractness which disqualifies our suggestions for the role of real possibilities' (1959, 269). Modifications to the particular features of nature are equally problematic, as suggested. '[W]e cannot even suppose the detail of existence otherwise except by atomising it and leaving things without the real sequence they would need, to be actual in themselves' (269). Esse est operari: real being is operational. Change the mode of operation and we change the reality in question. Even minor adjustments will issue in a world radically different from the one we actually inhabit. That in turn leaves psychologically finite agents logically and disenfranchised. 'Radical alterity beggars comparability;' it offers no conceivability-criteria (Conti 1995, 9). Put simply, the utter unlikeness of another possible world defeats any claim to know what that world is *like*, since it is *like* nothing we can experience or conceive.

That is why Farrer insisted 'the general lines [of creation] must lie as they are, or we have no foundation even for our fantasies' (1966b, 158). However, the 'general lines' of other possible worlds do not lie as ours do. Their conception is not even an abstraction from the world of our experience. That world has been conceptually 'atomised' by our modifications. Instead, we are attempting to talk about a world that we can know nothing about, a thing 'begotten by abstraction upon ignorance' (Farrer 1959, 269).

This breaches the empirical conditions of knowledge: 'no thought about any reality about which we can do nothing but think' (Farrer 1967, 22). A world without carnivores or constructed from elasticised elements is a world about which we can do nothing but think and we cannot even do that coherently. Consequently, it offers no explanatory yield. In the cosmological case that evil presents, we can only reason from the facts of a world.

There is more to this than speculation into the details of divine planning. Here too, anthropomorphism is at work. In Tooley's 'pick 'n' mix' creation, that 'planning' metaphor becomes literal truth. Both Byrne and Tooley appear, unwittingly perhaps, to be 'imagining that God begins with human purposes about his sub-human creations.' (Farrer 1966a,74) However, this too undermines cosmologicality of theism.

Leaving aside the devastating consequences of 'second guessing' God, the most common modifications to creation are relatively minor ones, aimed at maximising our convenience and comfort. Take, for example, physical pain. God might have

created a world in which 'extremely intense pains either did not arise, or could be turned off when they served no purpose' (Tooley 2010, section 7.4.). But what, precisely, is 'extremely intense pain'? Different individuals have different pain-thresholds: what I regard (with some exaggeration) as agony, you may dismiss as mere irritation. Without universal criteria for 'extremely intense', physical pain might be eliminated entirely. That would mean the end of the creature. Pain, as Farrer put it, is 'the grip of a harm the creature has failed to shun'; its 'purpose', to enforce 'the heed that was lacking' (1966b, 88). Pain signals damage and more to come if evasive action is not forthcoming. We ignore such warnings at our peril: our life depends on them. More than a warning, pain is also a compelling reminder: '[s]calded cats and burnt children respect the hearth.' Hence, the importance of 'pain and the remedial action which normally springs from it' is its 'survival-value': it's role in preserving the life of the creature. Without it 'no living species above the most elementary would have the faintest chance of survival' (87-8).

The question, however, concerns pain that serves no purpose. When the creature's fate is sealed and death is immanent, for instance, what value can suffering have then? Even here, Farrer reminds us, it has its place.

Suppose that a sharp body is piercing an animal in the direction of its heart; is it better that it should feel its condition to be tolerable or intolerable? Suppose it is weakened by injury or disease; is it better that it should aggravate the trouble by free exertion, or be deterred by pain? Suppose that sickness threatens its life. Is it good that it should run itself to death, or that it should curl up and conserve its dwindling vitality because it feels too miserably ill to do anything else? (1966b, 87).

And yet, there is so much seemingly unnecessary suffering that animal flesh is heir to. Fatal diseases could hardly be worse if they were unaccompanied by misery about which nothing can usefully be done. 'The agony serves no purpose but to prolong the agony; by discouraging free exertion, it saves them from working themselves to a speedy and merciful death' (89). Could the world not do without such pointless distress? Perhaps, but not without some radical changes to the neuro-physiological systems concerned. These systems are natural, which is to say physical. They respond to physical stimuli, not to the likelihood of success. If useless pain is to be switched off, then those systems must be capable of identifying which pains are useless. But this is absurd; we cannot expect physical systems to predict the future.

If the animal body is injured, it hurts, and the hurt animal fights. It does not know that the fight will be in vain; still less do its pain-nerves know anything of the kind. Shall fibres feel a future which only the event will determine? (Farrer 1966b, 90)

Even surgeons rarely claim the gift of prophecy. That just leaves damage that is being attended to. Pain often accompanies medical attention, despite having no further 'survival-value'. Surely that is pain the world could do without. Of course, it already does. 'By the time the medical faculty has assured itself of the diagnosis, and began treatment, pain has played its part and anaesthetics are in season' (87). Tooley implies that shutting off intense pain requires a miraculous reordering of the universe where painkillers might do just as well.

It seems the modifications we desire are not only a matter of comfort and convenience. They are also the kind that finite creatures like ourselves are capable of making; we cannot properly conceive of any other. 19 This, however, destabilises the cosmological inference. If the modifications are such that finite causes could make them, then why suppose that finite causes are not sufficient to explain things being as they are and not otherwise? If creation is a matter of our convenience, then it is quite within our capacity—or the capacity of something like us—to shape it. Once again, no God required.

We have forgotten that God is not a part of creation (like us); that 'God is the cause of the world's existence, and that he has woven nature from the bottom up' (Farrer 1966a, 73). In short, creation is no phenomenal façade. It is precisely what it appears to be.

The natural world is not a mere physical show, behind which there stands a scaffold of manlike planning. The physical world does not *look* physical, it *is* physical, and its Creator means it or thinks it just as it comes (Farrer 1966a, 74).

In creating a physical world, God set in motion the collision of physical forces that constitute it. We must suppose that each ingredient in that collision is conceived on its own level. Do so and we find 'the Creative Mind thinking physically, not humanly. For the divine thought identifies itself with nature at every level on which nature operates' (Farrer 1966a, 90). Every mode of active existence must, therefore, be actualised as itself, not as the personification of human will and desire. Volcanoes are not the result of poor planning or a vindictive nature. As natural events, they are a collision of physical forces. For the believer, of course, that collision is also and simultaneously the field of divine action, '[t]he will of

God expressed in the...physical elements in the earth's crust or under it.'

Every created agency has its own 'charter of privileges', a 'limited set of rules to which it has to work' (Farrer 1976, 130). That is what it means to be created. If any creature is to be the creature it is, the divine Will must 'relativise' itself to maintain and fulfil the charter of its existence. The Prime Creative Act must meet the terms of every rule and privilege, interpenetrate every phase of creation in the creating of it. For any existent, we presume it is 'his will they go on being themselves and acting in accordance with their natures.'

Thus, Byrne is quite right. Nature is indifferent, 'blind' to human justice. But we cannot simply frame that observation in anthropomorphic terms. We cannot, that is, define the world as both natural and conditional upon human purposes. Deny this (with or without God) and we must explain why nature so often seems more inclined to frustrate those purposes. More importantly, perhaps, we must explain the development of human beings themselves.

Human beings must be conceived as a product of natural, evolutionary processes. Abstracted from these, the characteristics that typically make us human have no function within the 'system of nature'. Human consciousness, that is, has no 'survival-value' or 'natural utility' (Farrer 1960, 78). However, if consciousness has no natural utility, then it has no natural explanation. Contributing nothing to the development of the species or the individual, it can only be a 'treat'. This explicitly contradicts the very idea of 'natural evolution', and of a natural world. 'Survival values flourish in an impersonal world; but we must personify Nature with a vengeance, before we can begin to think that anything is more likely to happen because it is a treat' (Farrer 1960, 78).

Put simply, the conceptual constraints of that anthropomorphism can only falsify our experience of the world. A scientifically enlightened theology must honour the terms of both metaphysics and naturalism. 'The way to study God's mind in nature is to let things show us the way they go' (Farrer 1966a, 87).

Real existence is a physical business, a 'free-for-all of elemental forces' (Farrer 1966a, 91). The arbitrary nature of this universal brouhaha inevitably results in 'accidents'. But these events are indistinguishable from the conditions for existence. 'Accidentality is inseparable from the character of our universe' (Farrer 1966b, 76). There is, then, no need to posit a moral ontology, or true order, beneath the 'surface' interactivity of the world. It is enough

to recognise the world for what it is. No cosmic amusement park: safety checks and satisfaction guaranteed; but a 'free-for-all of a million million million bits of system, interacting as they can and largely with irrelevance to one another' (Farrer 1972c, 187-8).

It is time to draw the balance of the argument. Philosophers are, no doubt, ready to accept God's answer to Job and foreclose on theodicy. 'God makes the world make itself' (Farrer 1966a, 90). So-called 'natural evils' arise from natural processes, processes that do what they do whether it suits us or not. The conclusion may be reasonable; it will hardly satisfy those who have lost all they love and all they have. Human suffering is anything but 'so-called' and it cannot be eradicated with glib philosophising.

Unlike philosophers, believers may find another claim in the 'accidentality' or naturalness of nature. They may find a claim upon themselves, a stark reminder of their faith. Natural evil, earthquakes and other disasters, present practical problems. In places like Japan and the Philippines there are real difficulties, urgent and ongoing. They concern human life. Thus, the critical questions which faith must face concern the connection of persons to their world. They concern our experience of suffering and our response to it. It is in such responses that theological truths meet the conditions for their application. Once again, no rejection of theological reflection. But it is in *praxis* we find the criteria by which *theoria* must be judged.

There is in all things, theism declares, a Sovereign Will, a Will that is immediately present in the believer's life. It first 'touches us; we aim to co-operate with it, and we hope to be saved by it' (Farrer 1959, viii). Religious *praxis* is, therefore, predicated on the possibility of some congruence between finite and infinite. This claim to personal communion inspires the search for a 'guiding hand' elsewhere. For the God of you and I must be the God of everything. There is, as another pragmatic thinker put it, a 'craving of the heart to believe that behind nature there is a spirit whose expression nature is' (James 1956, 42).

Personal interaction, then, issues a basic criterion of conceivability. That supplies both sides of the argument simultaneously. First, the God of real relations cannot be logically, ontologically, or epistemologically isolated from us. That 'old onto-theology' (Feuerbach 1957, 38) rebuts the providential care that both provokes and invokes the construal of nature as the work of that same providence. And without this putative experience there is no rhyme or reason in theistic speculation. Second, pragmatic theology reminds us that God

cannot be reduced to the analogical terms in which we inevitably conceive Him. *All* that we have to do with, is (obviously) not *all* that God is.

This move is anti-reductive, an admission of the analogicality of the analogy and, by implication, a refusal (still) to 'confine the divine nature' within its lineaments. Privileging the *ordo cognoscendi* over the scholastic's *ordo essendi* in this way cannot license inference 'up' to the ontologically independent Being, since no coherent claims can be made about that Being. Otherwise put, personal analogies are images under which we think God. They provide specificity, but only to bring God closer to persons than to impersonal forces.²⁰

We are, of course, still driven to ask why God allows natural 'evils' to occur, why He fails to save the lives of those struck by disaster. We would, no doubt, do better to ask the same of ourselves. For we cannot reasonably expect the believer or the theologian to explain what God's purposes might be. Penetrate to the heart of the matter, however, and we find more important questions. What does God wants of us? What does suffering demand? Look harder, the believer says, 'God's will is written across the face of the world' (Farrer 1966a, 114).²¹ But in the end, these are questions the theistic realist, however 'innocent', is not equipped to answer.

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Notes

- 1. See also Hick 1977 ch. 7.
- 2. Thanks to Hume, Epicurus is generally credited with the standard formulation of the problem: 'Epicurus's old questions have still not been answered. Is he willing to prevent evil, but not able? Then he is impotent. Is he able, but not willing? Then he is malevolent. Is he both able and willing? Then where does evil come from?' (Hume 1980, 63). Hume was following Pierre Bayle in crediting the problem to Epicurus. Bayle, in turn, followed Lacantius. (Larrimore 2001, xx and n19) According to Mark Larrimore, however, this fourth century theologian may have been mistaken. The problem, he suggests, was 'of ancient skeptic provenance, perhaps the work of Carneades (214-129 BCE).' The standard formulation is the clue: 'the trilemma was a form of argument perfected by the ancient skeptics.' (2001, xx and n19) Furthermore, standard interpretations of the trilemma

- may be similarly mistaken. Lacantius' assumed the argument was atheistical. Larrimore demurs, however. The Epicurean argument is no denial of divinity. 'It is a lesson about how to respond to evils.' The gods refuse to intervene, not because they are unwilling or unable, but rather 'because they (wisely) know better than to become involved' (2001, xx). Epicurus' target was not divine providence; it was *our* attitude towards evil. 'The problem is not that the gods are not upset by evils, but that we *are*' (2001, xx).
- 3. Cf. J. L. Austin on the parallel problem in philosophy of language: 'ordinary language is *not* the last word: in principle it can everywhere be supplemented and improved upon and superseded. Only remember, it *is* the *first* word' (1961, 133). Notably, he added, 'And forget, for once and for a while, that other curious question 'Is it true?' May we?' (133, n2).
- 4. On the relation between theory and practice, see Polanyi 1974, chs. 1 and 4. See also, Farrer 1967, ch. 1, and Smith 2011.
- 5. Byrne credits the term to Susan Haak, borrowing it from her 'Reflections on Relativism' in Philosophical Perspectives 10. Metaphysics (ed., J. Tomberlain, Blackwell, Oxford, 1996). There are, of course, better ways of accounting for the relation between persons and their world than those offered by Byrne, W. P. Alston, et al. Most obvious, perhaps, is the personalism advocated by thinkers such as Farrer and Polanyi. They endeavoured to overcome the usual clear-cut ontological and epistemological dichotomies (mind/world, real/ideal, subject/object etc.) instead, returning 'real being' to a framework of human exploration and explanation. Doing so, however, a considerably more sophisticated philosophical psychology, one that can adequately account for the role of (especially analogical) language and language-users in the constitution of a world that is both known and knowable. See, for example, Polanyi 1974, ch. 8; Farrer 1967, ch. 8; Feuerbach 1986, 51-60; and Conti 1995, ch. 1.
- 6. This focus on natural theology is not intended to be a rejection of other sources of theological reflection. There are, no doubt other and better ways of making sense of the finite-infinite relation, most obviously, perhaps, the experience of divine will in human lives. This, indeed, was always Farrer's theological starting point: the God who is 'sensible au coeur' (1967, 48). Cf. Smith 2011.
- 7. My thanks to Jerome Smith for reminding me of Xenophanes: 'if horses and oxen could draw pictures, their gods would look remarkably like horses and oxen.' *In satura veritas*. Cf. Farrer: 'every theologian is bound to find a course between anthropomorphism and ineffability' (1967, 140). Even the possibility of direct encounter with the Divine must use the language of the believer and the predication-principle supplied by human action if we are to say or think anything about it. The most mystical encounter must involve some degree of Divine doing, a doing which is thinkable only by analogy to our own.
- 8. Henderson borrows the expression from Farrer's *Auseinandersetzung* with process metaphysics and

- the 'Death-of-God' theologian Thomas Altizer. See Farrer, 1972c and 1972d.
- 9. See Feuerbach 1957, 30 & 44. See also: 'If he were God for himself alone in heaven, and we had no good to rely on from him, he would be a God of stone or straw.... If he sat alone in heaven like a clod, he would not be God' (1957, 338). Cf. Conti: 'If God sat all alone in heaven, like a bump on a log, he would not be God' (1995, 229, n28). Otherwise put, a God essentially unaffected by creation 'conflicted with the idea that creation occurred because 'God desired fellowship', so 'brooded' over a creation.' Hence, Conti concludes, '[i]f God was not already person...God became one in creating.' (15)
- 10. We cannot treat the relation of reference to referent as a factual question in the religious case. '[M]ost believers are not prepared to say that God might not exist. The point is not that as a matter of fact God will always exist but that it makes no sense to say that God might not exist' (Phillips 1981, 14). Fail to grasp this, as Ayer and Flew did, and we commit a 'naturalistic fallacy': analysing the God-construct apart from its primary function as a logically basic mode of explanation.
- 11. All references to Byrne are from here.
- 12. For Byrne, 'anti-realism' is 'addicted to a view of reality which is not so much childlike but childish' (111). This is because '[t]he view that human symbolising constructs reality is committed to a magical view of the relation between words/ideas and things.' Magic, like 'anti-realism', claims that 'what we do with our symbols can change reality, so that if I manipulate someone's name or image I can effect them.' (Byrne 2003, 32) But Byrne has missed an important psychological point. Children have a natural talent for philosophy; they know very well the effects of name-calling. Word 'games' have serious effects; by warping an otherwise healthy psychology they can change the kind of creatures we are. Furthermore, superstitions begin with human action and human experience. Experience teaches that events are caused by personal agencies. That supplies a natural framework for explaining the causal relations we find in the world: the literal projection of personal action. In short, superstitions derive from the tendency to populate the world with spirits and 'small gods'.
- 13. This is not, of course, intended to deny other formulations of evil as, for example, privation.
- 14. Innocent realism' does not, allegedly, entail either an 'impossibly transcendent point of view' or a 'God's eye view of reality...a complete and true description of the world. Many things we take to be true would in the light of God's eye be at best partial and at worst false' (Byrne 2003, 47). How compatible this is Byrne's 'absolute, non-perspectival truth' is unclear. (2003, 40)
- 15. See also: 'The old definitions accepted by Sir Isaac Newton and his followers were not merely incorrect, they were nonsensical. It is not merely that Einstein's very special and advanced physical observations proved that this isn't a Newtonian world. You couldn't have a Newtonian world. It is no blasphemy to say

- that God himself couldn't have created such a system.' (Farrer 1964a, 67)
- 16. See, Farrer: 'The notion of energies in a pure or simple state, prior to mutual engagement is physical nonsense. All activity is mutual, as between energies, and all activity thus mutually engaged changes and redistributes itself' (1967, 82). Cf. Feuerbach 1986, 51; Conti 1983, 56. See also Farrer 1959 28, 31, 44, 133; 1967, 114; and 1972b, 91. Whitehead, too, found his 'ultimate metaphysical principle' in activity, so defined reality as a *nexus* of concrete combinations. Thus, 'it belongs to the nature of every "being" that it is a potential for every "becoming".' (1978, 22) This mutual conditioning is termed 'prehension': the necessary connection of actualities by their participation in one another's concrescence.
- 17. This, one suspects, underpins various formulations of anthropic principle. Borrowed from the cosmological branch of theoretical astrophysics, the term 'anthropic principle' was coined by the astrophysicist Brandon Carter in 1973 at a symposium honouring the fifth centenary of the birth of Copernicus. It originates, however, in the 1960s and relates to the 'cosmological coincidence' observed by experimental physicist, R. H. Dicke. 'Dicke's Coincidence' questions random evolution on the grounds that the universe appears to coincidentally constrained by biological factors. In short, the evolution of life seems 'built in' to the development of the universe. That the natural character of the world is itself suggestive of the world's orientation towards personal (in some sense) purposes is, of course, a corollary of the fact that the world is only known and knowable through personal interaction. The philosophical point is clear: the world is actualised in pari materia with human consciousness (Farrer 1959, 235); as Conti puts it, "mind' is a logical extension of "world" and "world" and ontological construction of mind' (Conti 1983, 56).
- 18. See also Farrer 1967, 107: 'How are we to speak of the intentions which that [divine] will forms in natural events? What God wills for my virtue or my happiness, I am bound to conceive. What he designs through the events of nature, how shall I even guess?' Also 110: 'We may speak of the inexhaustible patience of God in achieving his wider aims. We cannot seriously suppose it to be a patience which has any impatience to overcome or any disappointment to discount; for that would be to accuse him of not knowing the sort of world he designs to make.'
- 19. Cf. Farrer 1959, 269: 'We can properly suppose otherwise only what we or the likes of us could make otherwise'; and 1966b, 158: 'The alterations we can meaningfully propose [to the structure of the universe] are only of the sort that we might ourselves be imagined physically to produce.'
- 20. See Farrer 1967, 48-49; Smith 2009 and 2011. Cf. Polanyi 1974, ch. 1.
- 21. See also Farrer 1964b, 7: 'Human unhappiness is a human problem, and the kindness of God inspires human hands to undertake it' (7).

EMOTIONAL PARASITISM

R.T. Allen

Abstract

Emotional parasitism, living in and off another's emotions, is a distinct form of shared feeling. It is an especially prominent phenomenon in modern life because it provides relief from a widespread *ennui* or emotional weakness and emptiness. It takes two forms: 'receptive' in which one person lives off the emotions of another, who may be near or distant, real or imaginary, and 'directive-receptive' in which a dominant person seeks so to control another so that he can then feed off his target's emotions. The latter has been particularly tempting in the relations between parents and their children and teachers and their pupils. These relations are illustrated with literary examples from Muriel Spark, 'Miss Read' and D.H. Lawrence.

Keywords

'Amusement art', R. G. Collingwood, community of feeling, T.S. Eliot, emotional identification, emotional infection, parasitism, fellow-feeling, D.H. Lawrence, 'magic art', Max Scheler

1. Emotional parasitism as a significant theme for philosophical consideration.

Emotional parasitism, so far as I know, has not received any philosophical attention, although Max Scheler in his treatments of the forms of fellow- or shared feeling did discuss vicarious emotion which underlies it. Moreover emotional parasitism is a prominent feature of contemporary life. Yet Scheler's own *Kulturkritik* focused on the *Umsturz der Werte*, not so much the 'overthrow' of values but their turning over or inversion, the replacement of higher ones by lower ones. Nevertheless, this has an emotional basis: in the modern world it is 'ressentiment'. The intimate connections among values and emotions, as revealed in much of Scheler's work, entail that a disorder in the one will bring about or follow from a disorder in the other.

Now as well as inversions in a person's *ordo amoris*, one very significant emotional disorder in contemporary life is emotional emptiness, a lack of feeling, following on from and reinforcing the belief that nothing is worthwhile. This is not the 'apathy' or emotional detachment from the world practised by Hellenistic sages and Hindu ascetics, but a general *ennui*, itself a negative emotion, a *felt* weakness or lack of other emotions which craves to feel something, to feel 'alive' or 'real', but can't find anything directly to stir any other emotions let alone positive ones. That this is a widespread feature of

modern life is manifested in more ways than one, such as incessant news on radio and television, soap operas, 'celebrity' magazines, gossip magazines and columns, and old-fashioned gossip, by which many people seek to fill an emotional void.

Scheler seems not to have pursued this line of enquiry but R.G Collingwood did, especially in his account of 'amusement' art which aims to arouse emotions to be discharged there and then as opposed to 'magic' art which seeks to arouse and sustain the emotions needed for practical life, although he did not explicitly mention emotional parasitism.² It is the very function of amusement to take one's mind off other concerns for the moment. Hence in an age of emotional weakness, amusement and amusement art are likely to be in great demand, and greater wealth, free time and modern technology have increased both the demand and the supply. A particularly effective form of amusement or entertainment in this respect is the provision of vicarious emotional experiences. That is, one lives in and through the emotions of other persons: real ones as in 'reality shows' and 'celebrity' magazines, and fictional ones as most notably so in romantic novels and films, thrillers, and soap operas, all of which are emotionally heightened versions of what is supposed to be 'real life'. Such a pervasive feature of modern life surely merits philosophical consideration.

First, I shall argue that emotional parasitism is a distinct form of fellow- or shared feeling to be added to Scheler's four. Following that, I shall illustrate it and its effects with some literary examples, especially from D.H. Lawrence.

2. The nature and forms of emotional parasitism

Scheler distinguishes the following forms of fellow-feeling or sympathy:

- (1) Immediate community of feeling with someone else, of one and the same emotion, in the same intensity and towards the same object;
- (2) Fellow-feeling (fellow-feeling or sympathy proper) with someone and 'about something', rejoicing in his joy and commiserating with his sorrow;
- (3) Mere emotional infection, 'catching' from the manifestations of another's or a group's emotions a mere 'state' of feeling (or 'mood') or vague emotion;
- (4) True emotional identification the act of identifying one's self with that of another, and in it the whole

self of the other is involuntarily and unconsciously taken as one's own, not only for moments of 'ecstasy' but also for longer periods.³

In the next chapter, Scheler takes vicarious feeling to be a form of emotional identification, and distinguishes two forms of it:

- (a) That of one who so lives in the emotions of another that he lives the other's life so that it seems to be his own because he is unaware that his emotions are vicarious. His life is parasitic because his opinion of himself entirely depends upon the other's opinion of him. Furthermore, this is the attitude of the abnormally vain person whose sense of his own moral reality is solely that of how much other people regard him. It is also characteristic of the passive mental parasite whose awareness of his own emptiness drives him to fill himself with the emotions of another.
- (b) That of the active 'vampire' whose passionate search for emotional experiences leads him deeply to penetrate into the other person and fasten on one person after another, as Strindberg's *The Dance of Death*.⁴

I suggest that here Scheler has been somewhat too specific and attributes some features specific to certain examples to vicarious emotions generally.

- (a) Surely many of those who seek to fill their own emptiness by feeding on the emotions of others are at least partly aware of what they doing and thus of the vicarious nature of what they come to feel. Also the most common ways in which it is sought and found are unilateral, for the others are persons at a distance ('celebrities') or fictional, and cannot have any opinions of those who live off them, except perhaps *en masse*.
- (b) Many emotional vampires do fix upon just one person or only a few, as do parents who live through their children and teachers through their pupils, as we shall see.

Therefore I shall now examine how emotional parasitism shares features with all of four forms of fellow-feeling while differing from them, and so constitutes a distinct fifth form. I shall take them in the order of (3), (1), (2) and finally (4).

(i) Though Scheler did not consider emotion parasitism as a distinct experience, he did give what can be an example of it in relation to emotional infection: 'catching' the cheerful atmosphere in a pub or at a party. Emotional infection, as Scheler points out,⁵ does not require any awareness of the actual emotions of those from whom it is caught, but merely of their manifestations. What is caught at the pub or party is either simply a mood of cheerfulness, or a vague one such as the otherwise undefined 'impending danger' of the fear transmitted in a

panic. And, as Scheler continues, a mood can be caught from impersonal phenomena such as a gloomy scene. Now emotional (or mood) infection can be used for a mode of parasitism as when we go to the pub or the party in order to catch the cheerful mood that we hope to find there. This is parasitic upon the feelings of others but only as the causes of our own feelings and not as a reliving of them which presupposes a full awareness of them. Consider the case of the man suffering from depression, who, when all other suggestions had failed, was recommended by the psychiatrist to go to the circus where the famous clown, Grimaldi, would be sure to cheer him up. 'But', the patient replied mournfully, 'I am Grimaldi'. The audience does not catch the mood felt by Grimaldi himself. In doing so, we seek, as Scheler says,⁵ distraction, distraction from our own emotional deadness.

- (ii) Conversely, emotional parasitism, as a vicarious reliving of the other's emotion, shares with both community of feeling and fellow-feeling an awareness of the other's emotion, of what sort it is and of what is its object. (Of course, such awareness is usually tacit and not make explicit to ourselves.) But unlike them, its real focus of attention is oneself. To take Scheler's example of community of feeling, the parents standing at the grave of their beloved child, feel together the same sorrow and anguish at the loss of their child, and feel it together.6 But someone seeking vicarious feelings would feel nothing spontaneously about the dead child but only as he relives the feeling of the other persons. For what matters to him is not the loss of the child, but that he feel *something*. Hence he has no genuine sorrow at the death of the child and so cannot feel the same emotion as the other person who does grieve the loss of the child.
- (iii) Similarly, although in fellow-feeling (sympathy proper) we share in the joy or sorrow of the other person and so come to feel joyful or sorrow both at his joy or sorrow and at its object, in emotional parasitism we would dwell on and in the emotion of the other person *as felt* by that person and not on the other person himself and the object of his emotion. Thus, again, what we would feel would not be the same emotion as that of the other person.

In emotional parasitism we have a reason for wanting to feel the other person's emotion, namely, our lack of spontaneous emotions, and we seek to do so, whereas that other person simply grieves at the death of a child or rejoices at winning the lottery. Therefore, whether the relationship appears to be community of feeling or fellow-feeling, in reality we do not share the one and the same emotion.

- (iv) We now come to emotional identification with which emotional parasitism has a particular affinity. Scheler takes emotional identification to be a heightened form of emotional infection. It is the act of identifying one's self with that of another, and in it the whole self of the other is involuntarily and unconsciously taken as one's own, not only for moments of 'ecstasy' but also for longer periods. It divides into two opposed forms:
- (a) the *idiopathic*, in which one's self totally eclipses and absorbs another self; and
- (b) the *heteropathic*, the reverse, in which one's self is so overwhelmed and hypnotically bound by the other that it lives in and through him.

Readers of *The Lord of the Rings* will recognise, in Vol. 3, this dual relationship in the characters, respectively, of Sauron and the Lieutenant of the Tower, who has lost all sense of his own identity and proclaims himself to be 'the Mouth of Sauron'. Scheler gives as examples the identification of the members of a totem with individual members of the totem species; the mass self-identification with their Leader by his followers; the heteropathic identity of the worshiper in mystery cults with the god or goddess; the hypnotist and his subject when this relationship is a permanent state so that the subject adopts the whole outlook of the hypnotist (but, Scheler adds, this is an identification of character and not of existence);7 and the self-abasement of the weak before the strong in order to share in the power of the latter even though as a victim of it, as in masochism and sadism, often combined in the same person (masochism towards a stronger person, and sadistic enjoyment of his power in exercising it upon one yet weaker).8

As Scheler notes in respect of the hypnotist and his subject, there are lesser forms of emotional identification than total and permanent identification.

I suggest that emotional parasitism generally is such a form of partial self-identification precisely because it is the reliving of the other's emotions as if they were one's own. The sense of the distinctness of the selves is preserved because one seeks vicarious fulfilment in living through the emotions of another. Hence all stories lead us to feel with the characters but not to act, or at least only to do a few things when feeling is most intense, as when I was watching years ago one of these films in which a car, with failed brakes, races down a long, steep and twisting road, and I found myself pressing my foot down heavily on an imagined brake pedal. 'Weepies' can be graded by the number of tissues required but they do not usually result in real broken hearts and suicides, although Goethe's The Sorrows of Werther is said to have done. Aesthetic experience

is not a 'willing suspension of disbelief' but a sympathy with the characters, which, because we know they are not real, does not lead us to do anything about them or their situations. Amusement artists deliberately try to produce such effects, as by focusing the whole work on the central character: Alfred Hitchcock once said that he aimed to play on the emotions of the audience as an organist uses the stops of his organ. But when the book, film, opera or play ends, so does the identification with the central character.

As akin to emotional identification, emotional parasitism has partial parallels to the idiopathic and heteropathic forms, which Scheler himself implicitly suggests in the passage from Ch. III summarised above. The former, Scheler's 'vampire', is the seeking to fulfil one's hopes and ambitions through the achievements of another whom one directs to that end or in seeking to arouse emotions in another which one can then feel as one's own. The other is not eclipsed and absorbed, because it is essential that he does achieve or feel as one directs him to do, but he may well realise that he is the instrument of the former's desires and so would conclude that he has little genuine life of his own.6 Thus the idiopathic equivalent mode has a heteropathic goal. Whether or not that can occur in emotional identification as Scheler defines it, I do not know. But, because it is essential to the idiopathic mode of parasitism, consequently I shall call this form the 'directivereceptive' mode and the heteropathic mode the 'receptive' one, and not Scheler's 'passive' type for in the personal world at least nothing is entirely passive but is an active reception.

In contrast, wholly receptive emotional identification is a non-directive living off the emotions of another. This is the more common one, for the other persons do not have to be people whom we meet and can control, but may be ones merely know about at a distance, and may well be fictional ones as are the heroines of romantic novels, the heroes of thrillers, and the characters in soap-operas.

Whereas in the case of seeking to relieve one's lack of feeling by means of infection, as in the above example of going to a party in order to feel cheerful, it is only moods or vague emotions that are caught, in these latter two forms what is vicariously felt (if one is successful) can also be a set of definite emotions: the hopes and fears, joys and sorrows, of the other at his successes and failures and his good and bad fortunes. They are modes of distinctively *emotional* parasitism.

To sum up this section: emotional parasitism is a more or less intended seeking of vicarious emotional arousal (even of negative emotions, as with the 'weepy') in which one person either lives in and off the emotions of another person or persons, real or fictional, or directs and controls the other real person or persons in order to live off his or their consequent emotions. In one way or another it is, or can be, like each of Scheler's four forms of sympathy or fellow-feeling but does not coincide with or constitute a mode of any of them, because of the lack of spontaneous emotions which motivates it and the consequent focus upon the other's emotions as felt and not as a genuine sharing of and in them.

3. Some literary illustrations

It is now time to add some more concrete detail to the general characterisation of emotional parasitism as just given.

It is important to remember that not all domination of one person by another is motivated by emotional parasitism. For example, I have found no hint of it in the relationship between the really awful Irene and poor Bertie, her son (the vehicle of 'the Bertie project'), in Alexander McCall Smith's 24 Scotland Street series of stories, even though Irene has ambitious designs for him, tries tightly to control everything that he does, and is convinced he likes what she plans for him. She also dominates and bullies her long-suffering husband.⁹

As that example does suggest, literary works that deal with adult relations with the young are likely to prove especially instructive. For adults are especially liable to the temptation to realise their unfulfilled ambitions through their children or their pupils and hence vicariously to feel as their own the latter's delight in success, as distinct from the proper desire that they should do as well as their abilities and opportunities permit, and the accompanying genuine fellow-feeling of the joys of their successes and also the sorrows of their disappointments. The difference is concern for what is truly best for them and concern for what the adults wish to achieve and experience vicariously through them. Miss Jean Brodie, in Muriel Spark's The Prime of Miss Jean Brodie, to cite another study of adult parasitism upon the young, picks her special group precisely for the latter purpose, and her repeated insistence that she is in her prime, reveals her own realisation that she isn't and is seeking to revive it vicariously through

These temptations were reinforced by the ideology of child-centred education. It was a frequent theme of the Romantic understanding of childhood, that the emotions of children are livelier, more spontaneous, fresher and more authentic than those of adults, who are likely to succumb to world-weariness, jadedness and conformity. Child-centred education arose in that

context, with Rousseau, Froebel and the like, and was informing 'progressive' education in England by the time that D.H. Lawrence came to write his 'Education of the People' in 1919, in which he carries its principles to their logical conclusions both to endorse them and also as a reductio ad absurdum. 10 After the second world war, it was dominant in teacher-training colleges and state schools in respect of primary, and attained its official endorsement in the Plowden Report of 1967. Its focus upon the child, rather than upon the subjects to be taught, inevitably brought temptations for teachers to feed receptively upon the emotions of their pupils and thence directive- receptively so to dominate and direct them that they might provide more material for filling the teachers' emptiness.

'Miss Read', herself the headmistress of a rural primary school, depicted in her first series of stories, especially in Village Diary and Storm in the Village,11 the triple relation of Miss Crabbe, a battle-axe of a teacher-training lecturer and preacher of child-centred theory and practice, especially 'self-expression', her impressionable and devoted former student, Miss Jackson, now in her first years of teaching, and her pupils in a rural primary school. Miss Crabbe constantly exudes enthusiasm, which makes one suspicious as to whether she really feels it. She also visits and revisits Miss Jackson, even though the latter is no longer her pupil but a qualified and practising teacher. It is obvious that she has a special interest in her. Likewise, Miss Jackson is also enthusiastic about child-centred education, somewhat naively, and has obviously been impressed by her tutor, whose ideas and attitudes she eagerly adopts and repeats. Thus Miss Crabbe directive-receptively lives in the genuine enthusiasm which she has aroused in her former pupil. For her part, Miss Jackson lives receptively in the teachings and example of Miss Crabbe, on whose every word she attends and tries to follow. She also tries to arouse and share in similar emotions in her pupils, but she makes little impression on the rather stolid village children, fortunately for them.

I now turn to D.H. Lawrence, first to some shorter accounts and expressions of emotional parasitism, and then, with cautions and qualifications, to it in *Sons and Lovers*.

In the opening of *The Rainbow* (Ch. I §1) the women of the village, and especially Mrs Brangwen, look for more than the daily life of the farm and the seasons, and vicariously find something of what they seek in the squire's wife, Mrs Hardy. They

talked eagerly about Mrs Hardy, of her husband, her children, her guests, her dress, of her servants and her housekeeping. The lady of the Hall was the living dream of their lives, her life was the epic that inspired their lives. In her they lived imaginatively, and in gossiping of her husband who drank, of her scandalous brother, of Lord William Bentley her friend, member of Parliament for the division, they had their own Odyssey enacting itself, Penelope and Ulysses before them, and Circe and the swine and the endless web.

In this passage we can clearly distinguish genuine emotional parasitism of the receptive type from simple excitement and distraction. The village women vicariously experience a more engaging emotional life in reliving the doings of Mrs Hardy, but about her husband and brother they merely gossip. That is, they are simply excited by the latter, especially in a prurient manner. They picture them but simply as spectators and not as themselves reperforming their affairs and emotions, at least not when talking to each other. Hearing, reading and talking about such people and events is simply a substitute for first-hand voyeurism in relation to them. Today, soap operas and gossip and 'celebrity' magazines also provide material for both mere gossip and genuinely parasitic and vicarious imaginative reliving.

Later on in the story, we meet Ursula, the third generation of Brangwen women, who like Lawrence, trains to be an elementary school teacher, and is offered a job in a poor quarter of Ilkeston, a small industrial town in Derbyshire, where the children had already shouted and thrown stones at her. But she

dreamed how she would make the little ugly children love her. She would be so *personal*. Teachers were always so hard and impersonal. There was no vivid relationship. She would make everything personal and vivid, she would give herself, she would give, give, give all he greatest stores of wealth to her children, she would make them *so* happy, and they would prefer her to any teacher on the face of the earth. (Ch. XIII)

In these thoughts, we discern the influence of child-centred notions upon Ursula and how they tempt her to mould her charges, not only for their happiness, but, we may infer, also for herself to live in and through them.

That is made explicit in 'The Best of School', an early poem from Lawrence's own days at a boys' elementary school in Croydon, a large southern suburb of London. 12 He likens the boys in his class to tendrils reaching out to feed from the tree, i.e., himself, who feels it very sweet that their awakening souls should do so. He concludes:

I feel them cling and cleave to me As vines going eagerly up: they twine My life with other leaves, my time Is hidden in theirs, their thrills are mine.

Whether or not he has more or less intentionally and thus directive-receptively brought this about, Lawrence is definitely not simply pleased that they are learning and learning with pleasure, but is living in and off their emotions: 'their thrills are mine'.

Mind you, just as reality soon hits Ursula who then realises that she has failed utterly, so too are matters very different when we come to Lawrence's 'Last Lesson of the Afternoon', which ends with 'I shall sit and wait for the bell'.¹³

The central relationship in *Sons and Lovers* is the complex one between Mrs Morel and Paul. Clearly much of it is, on the part of Mrs Morel, a proper maternal concern that her children should do well and improve themselves, and, on the part of Paul, a genuine filial love of his mother and desire to help and please her. Yet there are also other strands, especially hints at least of directive-receptive emotional parasitism on the part of Mrs Morel and a corresponding heightening of Paul's feeling for her which, however, does not lead to parasitism. Nevertheless the relationship between mother and son does play some part in disrupting the relations that Paul has with Miriam and with Clara, though certainly there are other complications in both Paul and Miriam, notably that in Paul's eyes she represents only the 'spiritual' side of his nature. Consequently, it will have to suffice here to mention some places where the element of directivereceptive parasitism by Mrs Morel and its effects on Paul are more salient. That means that I shall have to ignore Lawrence's own good advice to writers of fiction: 'Show, don't say'. That is, I shall have to mention the narrator's statements about the characters rather then their own utterances and actions. Properly to assess the extent of Mrs Morel's emotional parasitism upon Paul and its effects on him, it is necessary to read the whole novel attentively.

Mrs Morel has married beneath her, to a coal-miner. She aims at a higher level of life for herself and her family. But after six months, she becomes disillusioned with him, his irresponsibility, drinking and then bullying, and so she turns to her children 'for love and life', and Mr Morel becomes shut out from his family for most of the time. So when William, the eldest leaves for a job in London, she is more grieved at losing him than pleased at his success. Although he does not send her the money he promised, when Paul also leaves school and gets a job in Nottingham, she 'could think of two places, great centres of industry, and feel that she had a man into each of them, that these men would work

out what *she* wanted; they were derived from her, they were of her, and their works would also be hers'. Paul actually enjoys his work, and every night talks to his mother about it: 'It was almost as if it were her own life' (Ch. 5). When William dies and later Paul's younger brother joins the army, much to the disdain of their mother, Paul, becomes the centre of Mrs Morel's life. He is sensitive thoughtful, somewhat more prone to illness, academically able, interested in books and ideas, wins prizes for his paintings and thinks of eventually devoting himself to his art.

Paul strikes up a friendship with Miriam, the daughter of farming friends of Mrs Morel. Miriam comes to love Paul, but he wants to keep their relationship to one of friendship, even though he loves her. It is notable that Mrs Morel thinks that Miriam seeks to absorb him. At the beginning of Ch. IX, we are told that

the deepest of his love belonged to his mother. When he felt he had hurt her, or wounded his love for her, he could not bear it.

As for Miriam, she also fears once more that Paul will sacrifice her to it, and that behind his hardness towards her is the influence of another. Indeed, we next learn that Mrs Morel cannot bear it when Paul is with Miriam and so is determined to keep him. Yet Paul also wants something else, a more physical passion, while his mother wishes that Miriam might have been a woman who could have shared his new life while leaving his old one, 'his roots', for her.

When Paul leaves Miriam for Clara, a woman about seven years older than himself and married but separated, we are told that his love of his mother in response to hers for him, prevents him from going forward with his own life and really loving another woman (Ch. XIII). He and Clara drift apart because of the passion he had for her, as he never had for Miriam, ebbs, and because she cannot give up her husband. After some months in bed with cancer, his mother dies, and Paul loses all interest in life, including his drawing and painting, and even in continuing what his mother had done. Clara returns to her husband. Paul meets Miriam who says they should get married so that she can prevent him from wasting himself. But while she would sacrifice herself for him, she knows she cannot relieve him of responsibility for himself.

The novel ends with Paul in the darkness of the night, and crying for his mother, 'the only thing that had held him up'. And then comes the ambiguous final paragraph: Paul decides not to give in and not to follow her into the darkness, but turns and walks towards the lights of the city.

Mrs Morel's directive-responsive parasitism is but one strand in all the complications of Paul's life, yet it does add to his failure to find fulfilment with Miriam, Clara and everything else. The penultimate chapter is entitled 'Release': from the pain of dying for Mrs Morel, and perhaps from her for Paul. The emotional parasitism of his mother has weakened what it would live on.

4. Conclusion

If Collingwood and Eliot are correct in diagnosing emotional weakness and deadness as a major cause of our present discontents, then emotional parasitism, as a way of relieving it, will be another. For receptive parasitism gives a merely temporary relief, though it can become addictive so that much of a person's life appears to be bound up with following a soap opera or reading the issues of a 'celebrity' magazine, and chatting with other devotees about its contents. The amusement art that distracts us from emotional emptiness can also distract us from properly dealing with it.14 In directive-receptive parasitism, as suggested by my admittedly one-side reading of Sons and Lovers, can have additional and serious consequences, namely, those for its targets. Miss Jackson does not suffer from Miss Crabbe's parasitism upon her, while her own pupils prove impervious to her attempts. But some children have undoubtedly been seriously disturbed by their parents' fulfilling their own ambitions in and through them, especially ones they could not themselves fulfil. Any overly directive ambitions for one's children can have ill effects, but, I suggest, emotional parasitism will heighten them, especially if it also engenders a reverse receptive parasitism on the part of the children. I doubt if this is news to psychiatrists but philosophers and critics of culture should give more attention to it.

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Notes:

I wish to thank Prof. Angelika Krebbs for her helpful comments on this article.

- Ressentiment in der Aufbau der Moralen (1912; Ressentiment, trans. W.W. Holsheim, Free Press of Glencoe, 1961).
- 2. The Principles of Art (Oxford, Clarendon Press, 1938). See especially his account of The Waste Land as a work of 'art proper' and as having emotional deadness as its theme, as did much of Eliot's previous poems, pp. 333-6. The importance and current lack of emotion is also treated in 'Man Goes Mad' (1936; in R.G. Collingwood: Essays in Political Philosophy, ed. D. Boucher, Oxford, Clarendon Press, 1989) and 'Facism and Nazism' (Philosophy, XV 58, April 1940; R.G. Collingwood: Essays in Political Philosophy, ed. D.

Boucher). See also C.S. Lewis' An Experiment in Criticism (Cambridge, Cambridge University Press, 1961) in which he distinguishes a 'literary' interest in fiction which values the story and its details for their own sakes from a non-literary one which seeks vicarious wish-fulfilment and so wants only that type and amount of detail required to make the story seem 'realistic', something which could happen to oneself. The subtleties of the changes of heart by Elizabeth and Darcy in *Pride and Prejudice* would be passed over by a non-literary reader.

- 3. What follows is taken from *The Nature of Sympathy* (trans. P. Heath, London, Routledge and Kegan Paul, 1954) Pt I, Ch. II. A fuller account of Scheler's four forms of fellow-feeling is given by Prof. Angelika Krebbs, 'The phenomenology of shared feeling', *Appraisal*, Vol. 8 No. 3, March 2011.
- 4. ibid. pp. 41-3.
- 5. ibid. p. 15.
- 6. ibid. p. 17. In Spanish and Portuguese the words for 'hobbies' are 'distracciones' and 'distrações': cf. 'pas(s-)times'.
- 6. ibid. p. 13.
- 7. George du Maurier's Svengali and Trilby are a fictional representation of this relationship.
- 8. ibid. pp. 19-22. There is a religious form of this: self-abasement as a totally worthless sinner before God and then the (self-)righteous exercise of unscrupulousness as the instrument of God towards others, as by Cromwell, who never thought that *he* might be mistaken, and whose opponents must therefore be enemies of God. A purely political form is that of the revolutionary, such as Robespierre, Hitler and Lenin, who is the instrument of history and the revolution and so entitled to do whatever will advance them.

Scheler continues with other examples but these are either more speculative or do not allow for awareness of the distinctness of selves.

9. Alas, at the end of the latest volume, *Bertie Plays the Blues* (London, Little, Brown, 2011), it seems that Irene is about to reform.

- 10. In Phoenix, ed. Macdonald, London, Heinemann. 1936.
- 11. London, Michael Joseph, 1957 and 1958, respectively.
- 12. *Collected Poems*, William Heinemann, London, 1957, Vol. 1, pp. 24-5.
- 13. Ibid. p. 52.
- 14. As C.S. Lewis' distinction between the literary and non-literary approaches to fiction reminds us, not only can a work be both 'amusement' and 'art proper' (that is, a full expression of what the artist inchoately thinks and feels), as Collingwood maintained, but it can also be simultaneously the one for one audience and the other for another. Likewise with 'magic' art and art-proper, as Collingwood also maintained. Indeed, I think that he thought that, on the whole, magic art is or can be more productive of art proper, as well as being necessary for the maintenance of civilised life.

Furthermore, I think that the distinction between amusement and magic is not the dichotomy that Collingwood apparently takes it to be. Consider the success of Choo-Chin-Chow (a musical version of Aladdin) and The Dancing Years during the two world wars, respectively. What the troops on leave from France and then the residents of blitzed cities wanted was precisely some relief, some distraction, from the war, in order the better to go back to it or live with it. The Dancing Years, in its original production, itself contained both amusement and magic. For besides evoking the lost world of the Silver Age of Viennese operetta, it began with the hero (played, of course, by the writer and composer, Ivor Novello himself) in a Nazi prison looking back to that world, and it closed in the prison with him making a statement of the role of the theatre as magic for the revival of civilisation which elsewhere Novello had also made in person. Hence some degree and form of amusement may well have a necessary role as magic. In that case, the question would be one of the particular amounts and forms of amusement in contemporary life rather than amusement per se.

BOOK REVIEWS

Murray A. Rae (ed.)

Critical Conversations: Michael Polanyi and Christian Theology. Pickwick Publications, Eugene, Oregon, 2012. 190pp. ISBN 13 978 1 61097 727 2

Arguments about knowledge and relativity have been around forever. For hidebound rationalists—Polanyi's 'Objectivists'—subject is subject and object is object and ne'er the twain shall meet. Personalist thinkers, on the other hand, often claim it's a non-problem. Not that this stops them. Almost every author in Murray Rae's new collection has succumbed to the dubious charms of this old argument. Are we, I wonder, so haunted by the lurking fear that rethinking knowledge as personal act *is* just a front for recalcitrant relativism?

Despite this whiff of insecurity (thing-hood -envy?), focusing on relativism has its uses. For one, it marks a real desire for dialogue, to offer a thoughtful analysis of truth and reality which philosophy desperately needs. For another, it's an ideal opportunity to explore Polanyi's epistemology. In 'Knowledge in Science and Religion: A Polanyian Perspective', Tony Clarke does an excellent job, introducing key ideas like 'tacit knowing', 'indwelling', and the from-to structure of knowing acts. Crucially, he also outlines an 'alternative epistemological paradigm' which draws deeply on Polanyi's 'community of practice' (21). This fertile notion does (at least) two important things. Firstly, it reminds us of the empirical mandate for all genuine knowing: to paraphrase another pragmatic thinker, real knowledge concerns realities about which we have something to do.1

Secondly, it locates that knowledge within a social context: communities of faith and tradition to which knowers belong. Combining these ideas effectively destabilises the classical 'observer paradigm', that profoundly damaging misconception beloved by rationalists everywhere.

Clarke's message is clear: real knowledge is the privilege of active explorers, not objective observers. What preserves us from radical relativism is faith in the values of our community and in the judgement of those to whom we submit the results of our explorations. That underpins the 'universal intent' of our discoveries: the aspiration to be acknowledged by all rational agents.

Lincoln Harvey's attempt is a mite less successful. His 'The Theological Promise of Michael Polanyi's Project', still owes too much to Cartesian ontology.

Harvey focuses on Descartes' dangerously reductive conception knowing subjects. of Objectivism, he suggests, is driven by the urge to purge, snuff out the flickering candlelight of subjectivity and embrace the necessity of reason. He rightly sees Polanyi as transcending both subject and object so conceived, appealing instead to the passionate commitment of knower to knowing acts (64). Unfortunately, the ensuing leap from 'primary commitment' to 'realist epistemology' (65) is philosophically unwarranted. Worse still, it suggests a serious flaw in his understanding of personalism. For Harvey, personalism offers 'the reality of an objective truth' (65; Harvey's emphasis). How this is meant to overcome a rationalist paranoia that caricatures personal knowledge as fatally compromised, even polluted, is unclear. To insist that personal action provides access to a reality that remains 'independent of our knowing it' (65) simply reiterates the logical and ontological problems it claims to resolve. We still can't know what exists independently of our knowing it. Whatever it is, is, by definition, epistemologically out of reach.

Talk of an 'objective universe' that 'calls us' (67) doesn't really help. It simply shifts the emphasis back from active explorer to passive subject. Harvey's 'reality is the sort of place where knowing is possible' (67). Surely Polanyi's point was that we are ideally suited for exploring our environment. The difference is subtle but important. Knowledge isn't just lying around; we dig it out of the ground, so play a vital role in deciding what counts as true and real. This means knowledge is inevitably relative to exploring agents. But so what? That doesn't make it reducible to the explorer's experiences. For Polanyi, objectivity doesn't correspond to independence but universality. Another important pragmatic insight here: 'objective' facts must fit within some more or less coherent system of facts and ideas about the world. Crucially, Polanyi projected this forward. That fit is neither an immediate or temporary thing (something philosophers often forget). Genuinely 'objective' facts point towards an open horizon of future confirmations. Not independence, then, but the promise of once and future fit underpins universal acceptance and the use of honorific terms like 'objective', 'true', and 'real'.

Contrariwise, realism has no place in personalist epistemology. I'm with Richard Allen on this: realism only makes sense to those who 'either have failed to read [Polanyi]...or are still stuck in the Objectivist framework in which any involvement of the knower

in his or her knowledge renders that knowledge hopelessly "subjective" (37 n12). (A reminder here that Ayer wasn't so wide of the mark, methodologically at least.) The whole point of using person-concepts to rethink epistemology is to relieve realists' of such logical and ontological constipation. As a corollary of personal acts, knowledge is beyond subjective and objective. It makes no sense to ask whether the world is really real, independently of my explorations. We must, Polanyi insisted, have faith in the existence of that which we seek: the truth. Neither a restatement of inflationary ontology nor a retreat into relativism, that's anti-reductive. The existence of that with which I interact is a basic presupposition; I need it to think intelligibly of what I'm doing as interaction. The existence of the other is, moreover, presupposed by the very possibility of my acting. Action is necessarily interaction, so requires a minimum of two interagents. The logical force of that 'requires' is no watertight necessity, just the adequate condition for making sense of the idea of action. Strawson made that clear back in the 1950s.2

Alan Torrence also considers the problems of relativism, this time in a moral and political context. His 'Society, Skepticism, and the Problem of Moral Inversion' concerns Polanyi's discussions of moral inversion in revolutionary societies. Recognising the role we play in constituting our values, Marxism and fascism kept faith with enlightenment ideals, responding first with radical scepticism and then with violence. The pollution of the knowing subject was complete. Human beings were reduced to economic and power-political units.

Torrence's discussion is interesting, but he too seems dogged by passive subjectivity. Talk of reality interpreting itself to us and 'epistemic neutrality', for example, may owe more to Objectivism than Polanyian universality (84, 85). That said, he does address Najder's suspicion that concepts like 'moral perfectionism', 'conscience', 'liberty', etc. belonged to a liberalism that Polanyi never fully explained or defended. In doing so, however, he seems to have misunderstood Polanyi's philosophical anthropology. According to Torrence, that is, Polanyi's claim 'that "moral forces" are "primary motives" for humanity suggests that 'epistemic access to the ethical is hard-wired in some way'. Such mechanistic metaphors are out of place here, leading only to materialist reduction. Citing Patricia Churchland, Torrence notes that 'human beings are essentially nervous systems' fitted by evolution to 'succeed in the four F's: feeding, fleeing, fighting, and reproducing' (85).3In following Churchland, however, Torrence confuses different levels of

existence. Organisms that are solely concerned with their own survival are one thing, human beings another. Postulating a moral reality signals that we are not just organisms driven by evolutionary forces. Indeed, Polanyi's 'moral inversion' shows how materialist reduction functions in revolutionary ones.

Not only are we more than biological machines, we are not primarily individuals either, as Torrence seems to suspect. For Najder, Torrence tells us, Polanyi failed to recognise that the moral revolution taking place in Marxism and fascism was a "move away from an individualistic ethical focus to a social one". To regard Polanyi's moral and political philosophy—let alone his epistemology—as essentially individualistic misses the social point entirely. Inevitably bound for relativist interpretations of knowledge, it also ignores the role of others in constituting the self. That is the foundation of Polanyi's personalism. For Polanyi, trust and conviviality are fundamental. The community in which we learn to talk and think is a logically and psychologically basic component of persons. Whether personalism can survive Torrence's particular combination of materialism individualism seems unlikely.

Another author too much indebted to passive conceptions of the self is Peter Forster. His attempt to generate a 'Creative Congruence' between Polanyi and Karl Barth seems decidedly confused on a number of points. In essence, Forster attempts to use Polanyi's ideas about levels of existence to reconnect finite with infinite. Woe unto him, for what Barth hath put asunder, let no man join together. Forster's motives are clear enough, as is the point where he thinks a Polanyi-Barth conjunction can be made. Unfortunately, it's equally clear that Barth and Polanyi were doing entirely different things.

Barth was a top-down thinker; his Deus Dixit theology left no room for finite existence to be understood as a full-blooded participation in creation. This seems a poor fit with Polanyian conceptions of reality as an actively bottom-up affair. We all know that lower levels of existence set the boundary conditions for higher ones. Conscious agents can only do what their physical bodies enable them to do. Crucially, we also know that lower levels don't determine the scope of the higher. I cannot flap my arms and fly to the moon but I could (at least in principle) build something to take me there. Rocket science, maybe; but it's hardly theology. Force the metaphor and the consequences are absurd. We cannot claim that finite existence sets the boundary conditions for the infinite. To believe in God is to believe—as Barth surely did—that divine action is

absolutely prior and supremely free. The world is geared to the will of God, not the other way round.

Nevertheless, Forster is right to see the epistemic demand for faith commitments as a lively connection between Barth and Polanyi. There are, however, at least two different ways of understanding faith. Where Barth saw passive acceptance or apprehension, Polanyi found the driving force of our explorations. We have faith in the reality of that which we seek, in the values and ideals governing our search and, ultimately, that the search is worthwhile.

Interestingly, Forster also notes that both Barth and Polanyi insisted upon the personal foundations of knowledge. For the latter, knowledge of the natural world entails a personal co-efficient. The former famously held that understanding creation and our place in it is necessarily mediated by revelation in Christ. Perhaps, in some sense, Christ is the personal co-efficient of creation. Entering creation as a man, God crosses the ontological divide, taking His place in human life. Without that act of incarnation, the natural world cannot be fully made sense of as the field of divine action. Going further, one might suggest that Barth's top-down theology simply means that, in sending a Son, God sent the only means for our salvation. Through the acts of the Son, the Father initiates salvation, something we alone cannot do. How compatible with Barth's theology such suggestions really are is, of course, another matter.

In 'Truth and Dialogue: Polanyi, Gadamer, and Theological Hermeneutics' David Kettle turns to the work of Hans-Georg Gadamer in an attempt to get to the Cartesian heart of these issues. In doing so, he provides a robust critique of recalcitrant Objectivism and a fertile supplementary to Polanyi's epistemology.

Kettle's analysis of Cartesian constructs is philosophically and psychologically Isolating subject from object is, he suggests, only the first step. More significant is the underlying alienating of the self from itself. Rationalism stands upon a profoundly damaging suspicion of knowing acts. Descartes' programme of radical doubt began by rooting out the prejudice (allegedly) inherent in tradition and authority. It ended by fatally undermining the knowing subject itself. As Kettle observes, the 'Cartesian image' of truth and knowledge as a matter of correspondence is a 'distorted picture' because it rejects knowing acts and knowing agents as intellectually [and morally] corrupt (112). The knower is conceived 'in negative terms, as prone to over-hastiness' while subjectivity is 'a limitation to be overcome in pursuit of detachment' (112). So philosophy fled from actual explorations only to bed down with truth conditions that remain perpetually out of reach, refusing every invitation to come across. Certain scientists may have managed their double life well enough, espousing one epistemology and living another. Theologically, however, this has proved disastrous. It leaves the concept 'human' wearing its finitude on its sleeve, as it were, the dismissive 'merely'—as in *merely* human—barely suppressed. This inevitably leads to the ontological isolation of finite consciousness from infinite Godhead. And so begins the long road back to real relation characterised by personal analogies, themselves, objects of suspicion.

To overcome this, Kettle draws on Gadamer's 'horizon's of questionableness'. For Kettle and Gadamer, truth-claims are (in some sense) located within a 'horizon' of questions, which 'hermeneutically prior' (111). They provide the context in which answers may be understood. Put simply, our questions determine (to some extent) the terms and conditions for what counts as an intelligible answer. Importantly, Kettle notes, these questions are not ones we 'freely conceive and then choose to apply'; they present themselves to us 'in conversation' (111). This subverts rationalist detachment in two ways. First, it reminds us that our enquiries aren't directed from the security of Cartesian headquarters. More often than not, the meaning of the discourse, the conversation, is in charge. As Kettle puts it 'A question discloses itself to us just as surely as does a sudden insight in which things "fall into place" or an idea that "dawns on us" (111). Second, it points to the vital role others play in our explorations. The tools we use to explore our world are constructed from the questions others teach us to ask.

The Polanyian connection is clear: those 'horizons' are the 'tacit co-efficient' of knowledge. They are the values and ideals we 'indwell'; they are the communities of faith and tradition that invest those values and ideals in us; they enable us to strive for universality of thought or as Kettle elegantly puts it, 'communion in truth' (133). Conversation (a humbler word than 'discourse') is the key; it immediately confronts us with the other. That, Kettle suggests, is how we learn about the world. In conversation, our enquiries begin and end: starting with a tradition learned and accepted and finishing with conclusions debated and discussed. That, indeed, is where conflicts between 'horizons' are resolved or evaded. Notably, both modes of evasion that Kettle identifies—the dismissive and submissive—amount to a refusal to engage in conversation, a rejection of communion. Here, again, we find the primary failing of Objectivism: the fear of contaminating contact countered with self-imposed quarantine.

Using Gadamer and Polanyi to underpin Christian hermeneutics looks promising. It will certainly appeal to anyone attempting to reintegrate religious knowledge with other forms of knowing. But can Kettle cash this out theologically? Possibly not. For Kettle (like Forster) ultimately sees the 'revelation of the risen Christ' as the ultimate fulfilment of the 'communion in truth'. Indeed, this revelation 'properly defines the meaning of conversation and its goal in the first place' (138). Just what this means is not entirely clear. However, as Torrence reminds us, Polanyi regarded the 'authority of "revealed religion" as 'enfeebled' (87). Here too, the whiff of Barthian top-down theologising is unmistakable.

Going beyond philosophical comparisons, Paul Weston's essay, 'Michael Polanyi and the Writings of Leslie Newbigin', describes the profound influence Polanyi had on Newbigin's personalism. According to Weston, Newbigin found more than an epistemic alternative, particularly in Personal Knowledge. He found the seeds of a 'radical renewal of our culture' without which, it seems, 'our culture has no future' (177). Considering the political and economic disasters engulfing the West, not to mention the violence that recently tore through Muslim countries, Newbigin may have a had a point. The underlying reductive tendencies of the Enlightenment project have turned out to be dangerously unstable. Religion, morality, faith, everything that makes us human and every scrap of our humanity has been purged from our (self-) understanding. The world we have built for ourselves is, ironically enough, a world that has no place for us. Thus, it's not uncommon to hear so-called (and self-proclaimed) humanists like Richard Dawkins ridicule religious belief as childishly imbecilic. A 'Crisis of Western Culture' indeed.

Weston's account of this creative confluence is not without its problems, however. Primarily, Newbigin's appropriation of Polanyian 'indwelling' seems a little off target. According to Weston, Newbigin used it to 'articulate the dynamic relation between the community of believers and the Christian story' (168). The Christian story becomes the framework within which the believer understands her relations to others and to God. To 'indwell' this framework is, in some crucial sense, to live a life of faith; and so, Newbigin argued, the believer comes to 'dwell in' Christ. It's a neat pun, but is not very convincing. Talk of 'indwelling' concerns the 'from-to' structure of knowing acts, as several other contributors to this volume explain. What we 'indwell' is the whole background of tacit knowledge that concerns, for example, the minutia of physical operations (moving

hands, wielding tools, etc.). 'Indwelling' knowledge means we don't think about it as such, but focus instead on what we're trying to do, whether that's riding a bike, reading a book, or hammering a nail. The appeal is obvious; but as a way of thinking about religious life, it's a risky move. With faith thrust into the (largely ignored) background, religious belief is transformed into a worldview, just one way among others of seeing things. Weston himself makes the point. Turning to George Lindbeck, he describes Christianity as an 'interpretative framework' or 'lens' 'through which human beings see and respond to their changing world' (169). Another unhelpful visual metaphor, which reduces religious life to 'an alternative "plausibility structure" (170, Weston's emphasis). It's a short step from here to emptying religion out entirely and calling it a 'language-game'. Do so and we deny the God-construct any explanatory value. Religion becomes a matter of language-use rather than our relation to a divine will. It confuses, that is, the conditions under which we experience and describe our world with its putative provenance. Here too, what is missing is a full-blooded account of the believer engaged with that divine will.

Bruce Hamill's essay, 'Science Meets Violence', takes a decisive step in that direction and away from passive subjects. Here, theology becomes interactive. Polanyi's epistemology, he argues, reflects the 'theological doctrine of creation'. Both presuppose 'a creature...whose existence is oriented towards meaning and is thus a potential communication partner for a communicating God' (145). Communication, and the concrete connections it requires, is evidently the key.

Unpacking this, Hamill supplements Polanyi's ideas about intellectual passion with René Girard's analysis of desire. For Polanyi, the 'universal intent' of our enquiries is driven by passionate commitment to the truth. Girard, too, regarded desire as the vital component: the motivating force behind our actions. Crucially, Girard's conception of desire is more basic, more bodily, than philosophers are often comfortable with. No room here for romantically high falutin' (and ontologically purer) desires reaching for any thing-in-itself. The truth, Girard maintains, is more obvious. Desire is 'mimetic': learned by (intelligent) imitation (149). Value is, therefore, a corollary of the other's desire: we want what others want because they want it. This, according to Hamill, separates us from non-human animals, but not much. Initially at least, desire is an expression of bodily appetite: the four F's again. However, as relations between self and other increasingly complex and consciousness develops, the desire to understand the

nature of our environment and our place in it is likely to develop likewise. Human consciousness is oriented 'upwards', towards its own transcendence. We may desire this or that object, but that comes down to a desire to control our environment and, ultimately, ourselves. To control, we must understand.

It would be a mistake to downplay the significance of the shift in the nature of human consciousness here, not least because it teeters so precariously between naturalist reduction and over-inflated ontologising. Hamill neatly avoids both with a theological move firmly grounded in human nature. For Hamill, Girard's 'scapegoat mechanism' is both an essential component of human desire and the key to its development. This mechanism is society's way of resolving conflicts arising from shared desire. Where two or more desire the same object, chaos lives hard by. It can only be avoided by finding a scapegoat: 'before all is lost in violence the protagonists converge against a common victim' (151). '[S]ocial unity is restored' as 'a gesture of accusation is imitated' and 'rage is purged in eliminating this victim' (151). The innocence of the victim, though irrelevant to the protagonists, will not be lost on theologically minded readers.

No 'ontology of violence', Hamill insists; rather 'an account of [the] ontological fragility' of a social self. Quite so, for a social self is essentially fragmentary: self-constructed amid 'relationships of imitation and desire' (152). Here too, the ontological inertia of the Cartesian substance-self is undermined. This also opens the way for transcendence, psychodynamic development made meaningful by the appearance of an Other genuinely worthy of imitation. This Other offers a healthier psychological model orienting desire away from ego-appetites towards the fulfilment of the other. In Christ, that is, humanity transcends its limitations through 'mimetic imitation' of the 'generous self-giving Father' (152). The Father sends a Son to live our life and die our death: the only sacrifice great enough to reclaim and redeem our desires. Christ transforms man, humanity is 'radically reorganised by worship of the "lamb" and scapegoat of humanity' (152). Here is the 'upwards' orientation of human consciousness striving to reflect the universal truth that constitutes it. This is the theological promise of Polanyi's epistemology.

Richard Allen's contribution, 'The Dialectic of Assimilation and Adaptation Revisited', picks up and extends this idea nicely. (It's actually the second essay in this collection but logically, and dramatically, it follows Hamill's.) Tracing the problem considerably further back than the other contributors, Allen suggests that it's not, in fact, all Descartes'

fault. By appropriating the 'terminology and thought-forms of ancient philosophy— "substance", "essence", "form", "idea", and so on (33), Christian thinkers have caused many of their own problems. the logically 'thought-forms' embody Those isolationist tendencies at the heart of Western ontology.4 The apparent contradictions still plaguing theology— transcendence/immanence, finite/infinite, etc.—are a function of the language in which religious thinkers think. Allen's solution: return to the language in which faith originally speaks. Ask 'what is God?' and theology indebted to Aristotelian categories answers 'Being, He Who Is' (45). Descriptively threadbare, logically underdetermined, and psychologically empty, sheer 'is-ness' may be the most notorious notion in philosophical history. As J. L. Austin pointed out, it tells us literally nothing so invites the obvious question: He Who Is What?

It is precisely this kind of language that allows philosophers (and certain scientists) to persecute believers. It leaves them with little more than language-games and forms-of-life to believe in. Of course, that bothers believers a lot less than it bothers their persecutors. Clearly, we asked the wrong people. Let's try again: 'what is God?' 'Christianity gives us the final answer: God is Love (1 John 4:8)' (45). Love rebuts both logical inertia and ontological separation, for love is outreach. It also overcomes those ancient contradictions, for love admits no limitations, excludes nothing and no one.

Crucially, acts of love have as many manifestations as the circumstances arousing them. One of the most important of those manifestations—returning to epistemological heart of this book—is knowledge. For Allen, 'knowing is an expression of love'. Abandon all hope, ye who yearn for abstract conceptions of knowledge. This could be the last nail in the objectivist coffin. Those familiar with Polanyi (and the other essays here) will recognise a key Polanyian theme: the passionate commitment of the knower in her search for knowledge. Passion is the lifeblood of our explorations. What else could drive us onwards in the face of disappointment and failure? Truth is something we value, something we desire (as Hamill reminds us). Here, then, is Allen's answer to Hamill's question: how do we get from bodily appetite to the 'higher' desire for truth? Simple: with love. The knower's passion for her search is not acquisitive. Love elevates knowledge above the merely utilitarian, orienting explorations beyond the satisfaction of ego-needs towards a 'higher' goal: a truth that warrants universal acceptance. The radical separation of knowing subject from object known is finally

defeated here. Love is concrete connection. Shaping the interactions in which subject and object are disclosed to one another, it shapes subject and object themselves, simultaneously transcending them both.

What began with the coolness of rationalist categories, then, ends with the warmth of loving connections. The schematics of relativism and Objectivism may be an important theme of this book, but deep down it's really about something else. It's about the communities of faith wherein we learn to live our lives and think our thoughts. In those communities, philosophers and theologians might find the means to self-transcendence on which all real knowledge is built. They might even find the nerve to leave questions of relativism and objectivism alone, give up their insecurities and get on with some real philosophy. For that, if readers care to look (or better still engage), is what we are offered here: an invitation to creative and constructive dialogue, conversations in which the authors are not simply talking about philosophy but actually doing it.

Simon Smith

Notes:

- 1. See Farrer, A. M. *Finite and Infinite* (Westminster: Dacre Press, 1959) ch. VII and *Faith and Speculation* (London: Adam & Charles Black, 1967) ch. 2.
- 2. See, for example, Strawson's *Individuals* (London: Methuen & Co. 1959), especially ch. 3.
- 3. Torrence is quoting Churchland's 'Epistemology in the Age of Neuroscience', 549.
- 4. N. B. Farrer's observation in *Freedom of the Will* (New York: Charles Scribner's Sons, 1960): 'Descartes was not synthesising science and common experience; he was hashing Aristotle' (16).

Mary Jo Nye

Michael Polanyi and his Generation: Origins of the Social Construction of Science

Chicago, University of Chicago Press, 2011, IBSN 978-0-226-61063-4; pp.405 £29:00 hbk.

Michael Polanyi had a philosophical cast of mind. If he had been wealthy (his father had made a fortune building railways but it had been taken away from him by a combination of natural disaster and political malevolence) he would have focused on philosophical issues. By this I mean that Polanyi would have had the leisure to reflect on the meaning of life. The historian George Mosse notes in his autobiography that while an undergraduate at Cambridge some academics sought his acquaintance because he had [Jewish] German relations who were famous historians. He tells us that these relations mostly relied on private incomes. Well Polanyi did not have a private income, and so he

followed his mother's advice and trained to become a physician - extracting fees from the ill and dying in return for (generally ineffective) remedies. His talent (let us be frank—his genius) was spotted however by his teachers, and they helped him to get a chemistry scholarship in Germany (being a polyglot Central European Polanyi was already fluent in German) and only a few years later was a professor of chemistry in Berlin. It is his philosophical reflections however which are his lasting achievement. Some lament that Polanyi dabbled in areas beyond his professional expertise. Maybe—like his son John—he could have won a Nobel prize. Maybe—like his friends Leo Szilard and Eugene Wigner—he could have become one of 'The Martians'. If you look at his professional career however you cannot help noticing that many of his ideas were completed by others. A grand theory eluded him. In 1929 Dirac (who married Wigner's younger sister) wrote a paper which pointed out that 'some of physics but all of chemistry' is explained by Quantum Mechanics. It is a theory that relies heavily upon mathematics. As a mathematician Polanyi was merely talented. He knew what mathematical genius looked like. One of his best friends was John von Neumann. In a revealing remark John Polanyi said that his father was most at ease with the sort of science where he could visualise molecules and make them tangible.

In Michael Polanyi and his Generation Mary Jo Nye notes that Robert Musil, in his novel 'The Man Without Qualities', claims that physics and economics were the main topics of interest before the First World War in Vienna. One of Polanyi's laboratory colleagues told William Scott (as Scott was preparing his biography of Michael Polanyi) that in 1931 his focus began to shift towards economics. Nye tells us that Polanyi told Kuhn in 1962 that it was always his intention to move beyond science at some point. In his old age Polanyi confessed that it was not until he was in his Fifties that he found his 'true vocation' as a philosopher. Now the division between his professional and amateur life is not as clear cut as I am implying, because the vice-chancellor of Manchester University set up a new Chair for Polanyi so that he could do pretty much do what he wanted. In his writings on economics Polanyi joins Ludwig von Mises, Frederick von Hayek and Milton Friedman (the latter born in New York to recent Hungarian emigrants) as an 'Austro-Hungarian' proselytizer in favour of a free society. All were Jewish. Nye notes that in 1867 the Hungarian National Assembly passed a law giving Jews equal status to Christians. Why? Well if you are a fan of the Enlightenment you will say that it was because the 'New Science' undermined

Christianity and prepared the way for religious freedom. If you are a Leftist you will say that the French Revolution created a rights based politics that liberated Jews from the ghetto. The historian John Lukacs on the other hand claims that nationalists encouraged Central European Jews to settle in Hungary and become Magyarized so that they would increase the number of Hungarian speakers. When these Jews (who had a high average IQ) started to form a new elite (the mayor of Vienna described Budapest as Judapest) this led to a backlash. Maybe a free society was not such a good idea after all. Some Jewish intellectuals reacted to this hostility by becoming enthusiasts for a society in which ethnicity would be eliminated. An enlightened society would be an egalitarian and value neutral order run by intellectuals-in which religion, metaphysics, and patriotism would be left behind in the gutter.

David Horowitz, the American (soon to be ex-Marxist) writer and political activist, at a meeting attended by his Marxist friends, put forward the suggestion that Marx was a self-hating Jew, and he (mischievously since he knew that each and every one of them was Jewish) asked them about their ethnicity. Polanyi also rejected nationalism, including Zionism, but he was even more opposed to social planning. Instead of positivistic rationalism he sets out a humanistic vision in which fallible human beings have the freedom to pursue universal values. He thought that a false conception of science—a false understanding of what it is to be a human being was destroying European civilisation. Nye rightly notes that his philosophical writings draw heavily upon his professional experience as a theoretical chemist. Her chapters on his life and work in Berlin are the best in the book. In 1928 (a couple of years after he had been awarded a professorship-which he celebrated by buying his wife a silver vase that he absent-mindedly left behind on the train) Polanyi gave a speech which described scientists as a community of researchers allowed by the State to rule themselves. In an article he wrote in 1930 he advocated taxpayer support of scientific research, even when (indeed especially when) its practical benefits were not obvious. A few years later the Nazi Party (supported by enthusiastic student activists) politicised the universities. In his address at the University of Leipzig in 1933 a leading Nazi politician declared that scholars in the new Germany would be directed to use their knowledge in the service of the nation. Jews (you were Jewish if any grandparent was Jewish) were removed from their posts. In 1922 Hitler was asked why he picked on the Jews. He replied that although small in number they accounted for an large share of the national wealth, which could be put to use by the State. They are defenceless, and no one will stand up to protect them

In his visits to the USSR Polanyi noticed that the Communist Party had already politicised the universities. Bukharin told him that scientists were required to work in the accordance with the requirements of the latest Five Year Plan. When Polanyi got a position teaching chemistry at the University of Manchester he noticed that central planning was also being advocated in Britain. Nye points out that Polanyi was aware of the persecution which was going on in the USSR, and this helped motivate him to set up a society which argued that scientists (even those employed by the State) should have the freedom to pursue their inquiries independently of political control. His campaign was very successful. He also managed to persuade Sir Samuel Turner, a businessman, to fund a film which explained how money circulates through an economy. With the help of Sir Henry Clay (economic adviser to the Bank of England) he got additional funding from the Rockefeller Foundation. For anybody who lived in Britain in the early Eighties his claims about the importance of the money supply are very familiar. Polanyi formulated a 'Principle of Neutrality' which justified State interference in the money supply, but excluded social engineering. His film however did not address the question of what effect a monetary stimulus would have in a debt burdened economy! In his writings about science he claims that science is traditional and dogmatic rather than revolutionary and sceptical. Scientists will often (rightly) ignore evidence, on the grounds (hope) that an existing theory will eventually account for it. Sometimes however scientists 'break out' into new interpretative frameworks, which are adopted in something akin to a conversion. Contributions are judged by an appeal to accuracy, systematic importance, and intrinsic interest. Whereas judgments about plausibility enforce conformity, judgments about originality enforce dissent. Science therefore exists in a state 'internal tension between tradition and innovation. Polanyi asserts that it is no more possible to centrally plan science than it is to centrally plan an economy; both are spontaneous orders which arise as consequence of mutual adjustments between numerous centres.

Because of his work in the social sciences Polanyi was offered a job at the University of Chicago, but because his entry visa was delayed he was not able to take up the position. The delay was caused by political vetting. The increasing dependence of universities upon the taxpayer meant that few questioned the right of politicians to make demands upon them. Robert Hutchins (Chancellor of the University of Chicago from 1929 to 1951) in his 1949

testimony before the 'Subversive Activities Commission' of the Illinois Legislature (at which the University of Chicago was charged with aiding and abetting Communism) declared that universities should seek to resist all political interference. His campaign was largely successful. Alan Bloom suggests however that a couple of decades later, in what became known as the 'Culture Wars', universities capitulated to political demands made by student activists. Cultural Marxism declares that science is not about truth and falsity, it is about conflicts between races, classes, and sexes. In philosophy of science departments there was a shift from one group of anti-metaphysical philosophers (Empiricists) who sought to reduce science into rule following, to another group of anti-metaphysical philosophers (Relativists) who sought to situate rules within an interpretative context. Nye (rightly) claims that Polanyi greatly influenced the philosophers of science Kuhn, Feyerabend, and Lakatos. But as Nye also notes, 'Philosophy of Science' textbooks generally write Polanyi out of the script. They do this for a good reason. Polanyi views positivism and relativism as variations of the same error. An error which a recognition of the 'fiduciary' character of scientific inquiry rectifies. Popper and Kuhn view Polanyi as advocating some sort of [Christian] mysticism. Lakatos and Feyerabend view Polanyi as some sort of [Burkean] conservative elitist. They are not wrong. According to Polanyi freedom is not an end in itself, it is desirable because it facilitates our progress towards realising objective ideals. In a lecture at Leeds University in 1941 (when victory over the Germans was far from certain) Polanyi claims that a better understanding of the nature and limits of scientific inquiry will re-vindicate the indemonstratable but knowable ideals that are the heritage of our Christian civilisation.

What happens when these ideals are deemed not to have any metaphysical ground? What happens in other words when Nietzsche (and his followers such as the Nazi philosopher Heidegger) become the philosophers to whom university humanities departments turn to help their students solve the problem of the meaning of life? According to Polanyi when (Jewish) moral passion is excluded from our (Greek) quest for objective knowledge, it reappears as moral inversion. The universe far from being a cosmos (a place in which we can become at home) becomes a (Darwinian) vision of meaningless strife. In a Marxist utopia the end of history is a society in which everything is equal because nothing is better than anything else. Mary Jo Nye has written a scholarly and interesting book on Michael Polanyi that ought to be required reading for anybody who interested in his life and work. It is however in many

ways a frustrating book. She details the (considerable) influence which Polanyi has exercised in the discipline of philosophy of science, but she nowhere asks whether his views are correct. Nye points out that his work was used by people with very different views. They recognised that he was providing an account of science that was closer to its practical reality than any of the other accounts. My impression is that Pierre Duhem is the only other philosopher of science worth reading. But, if we refuse to address the truth or falsity of his claim that there is a crisis in Western civilisation, which his 'Post-Critical' philosophy solves, then why bother? Nye will no doubt reply that she is a historian not a philosopher. Her book is a survey of what Michael Polanyi said about science as a social practice. It is a summary of what some other and much better known philosophers of science have said about him, and borrowed from his work. But her book, because it refuses to engage with his metaphysical claim that values are objective, is a work of scholarship that falls short of being anything more than an introduction to his ideas.

C.P.Goodman

Hugo Meynell

The Epistemological Argument Against Atheism: Why a Knowledge of God is Implied in Everything We Know

Lewiston, NY and Lampeter; The Edwin Mellen Press, 2011. 238 pp. Pbk £39.95.

In this book Dr Meynell, formerly of the Departments of Philosophy and Theology and Religious Studies at Leeds, and then the University of Calgary, seeks to reply to prominent 'cultured despisers' of religion (quoting Schleiermacher), especially Richard Dawkins and Christopher Hitchins, and bases his arguments on the 'transcendental Thomism' of Bernard Lonergan, as principally expounded in *Insight* (1992). The heart of Lonergan's philosophy is his four 'transcendental precepts': 'be attentive, be intelligent, be reasonable and be responsible'. The first three apply to all inquiry, and the fourth to any action based on them. (May not the first three be specifications of the fourth?). They are the foundational 'positions' whose denials. the 'counter-positions', self-contradictory. The exercise of these precepts constitutes 'the generalised empirical method', whereas empiricism (as a philosophical system) limits knowledge to immediate perception because, rightly seeing that formal logic cannot lead us any

further, it wrongly assumes that there is no way beyond it. What is called 'induction' is not an independent principle but the exercise of intelligent supposition and reasonable judgment.

In general Meynell's procedure is first to clear the ground against such 'counter-positions' and thus to open the way to rational discussion of the claims of theism, and then to argue for the validity of its claims. Thus in Chapter 1, Meynell sets out these foundations, refutes (philosophical) empiricism and the rejection of foundations, positivist rejections of metaphysics, materialism, 'socio-idealism', naturalistic (reductivist) epistemologies, socio- logical relativism, Marxism, moral and 'dogmatic' scepticism', which self-refuting all of are 'counter-positions'. As for what the epistemology of the four precepts immediately implies about the general nature of the world, Meynell cites its intelligibility as openness to their exercise and, as a result of modern physics, that it is composed of both classical and statistical laws, which therefore leaves it open to 'emergent probability' of a series of levels each with a given probability of emergence and survival according to statistical laws.

Likewise, in Chapter 2, 'Moral Atheism', uses the four precepts to refute moral scepticism, relativism, emotivism and prescriptivism, and more empirical arguments to counter claims that religion has nothing to do with morality or is definitely detrimental to it. Yet I find that his positive argument is rather lame: that religion does add something to morality (he implicitly rejects theological positivism; that moral laws are the arbitrary commands of God) and that we should wish that after death there is some sort of punishment for the really wicked and happiness for the virtuous. Surely there is much more to be said, as in A.E. Taylor's great work, *The Faith of a Moralist*.

Similarly in the next chapter on 'Rational Theism', he develops his central argument that the application of the four transcendental precepts points to (I would say, presupposes) the rationality of the universe. The success of the natural sciences increasingly shows that this is the case. And so the only possible explanation of that is that the universe was created by a rational all all-comprehending intelligence and will, namely God. Other answers merely beg the question, dogmatically refuse to raise it (positivism), claim that the universe is self-explanatory, or deny any knowledge of God apart from direct revelation. Since this is the main theme of the book, perhaps more could be said or at least be mentioned, about this, as in Stanley Jaki's The Road of Science and the Ways to God, though Meynell does mention Michael Foster's argument (Mind 1934, 1935 and 1936) that modern natural science derives from

Greek rationalism and Hebrew creationism, the one yielding the conviction that it must manifest order and system, and the other that its actual structure must be discovered and cannot be deduced *a priori* because it is contingent upon God's choice and will.

The final three chapters offer a critical yet generous and genuinely ecumenical comparison of Christianity and Religions, a Portrait Gallery of contemporary secularists, and a suggestion that the spiritual treasures of religions, especially in their arts, may not be separable from their religious contents, along with three literary examples.

Altogether Meynell seeks to cover quite a lot of topics, many of which are beyond those directly related to the book's proclaimed theme, and, to lapse into current jargon, he seek to do so 'accessibly'. In relation to the philosophical and theological bases of his arguments and discussion, I have reservations about four of them:

- (1) Meynell states that metaphysics must be based on epistemology, and that the world or reality 'is *nothing other than* what we come to know by being as rational as possible' (p. 79, my italics). This sounds just like Kant's transcendental idealism, which Meynell rejects (pp. 65, 106) and, in contrast, he insists on the reality of the world logically and temporally prior to human understanding. Surely the self-transcendence of human knowing implies that any account of it must both proceed from reflection upon what we do know, and, in particular, that our knowledge of the structures of reality must proceed from what we *find* reality in general to be.
- (2) In his discussion of the 'problem of evil', he affirms the Augustinian and Thomist account of evil as a 'lack' (p.107). True many natural evils are lacks, such as human blindness. But is cancer and its agonies a 'lack'? And moral evil—spite, malice, envy, hatred, cruelty, contempt—is no mere lack in its perpetrators, though frequently it intends them in its victims, but is really a perversion.
- (3) Likewise he accepts the Thomist relation of reason and faith. He rightly rejects any fideism and with Aquinas holds that reason can lead to faith and also to recognising the need for authority and trust in it. But what about the necessary trust in our faculties of perception, memory and reasoning, the only 'justification' of which is the back-handed one of pointing out that any such alleged justification cannot but acritically rely upon them? This surely entails the Augustinian and Anselmian position that faith leads to reason (he himself reverses the latter's formula of *fides quaerens intellectus*, p. 184), as followed in our day by such as Polanyi and Collingwood. As Collingwood said, reason is faith cultivating itself.
- (4) In relation to the possibility of miracles (actions of God which diverge from his usual way of

proceeding), persons existing apart from physical embodiment and thus of life beyond the dissolution of the body, Meynell primarily argues from 'psychic' and paranormal phenomena. But, even if there is something in them, the life disclosed seems more like the shadow-existence of Sheol and Hades than that of the Christian hope and promise. And, given the existence of God, then the possibility of the life everlasting and of miracles is *a priori* possible, indeed, probable. Would a loving God let so many of the lives he has created simply finish after years of toil and sorrow, and all short of the glories and joys which he can give them? And only persons of limited imagination or circumstances carry on doing the same old thing.

One final question: For whom is this book intended? If it is primarily aimed at an academic readership, then at the least the central argument should really be treated in more depth. If, however, it is aimed at a wider readership, and these matters are alive among the general public, then the choice of an academic publisher and an expensive format, even in paperback, will inevitably restrict its reach. These days there seem to be few ways of presenting serious work in a way that can reach a wider readership.

R. T. Allen

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References to books by Michael Polanyi:

Because of the particular interest in the work of Michael Polanyi, and in order to avoid unnecessary repetition, please make references to his books by means of the following abbreviations followed by the page number:

CF = The Contempt of Freedom (London, Watts, 1940; reprinted New York, Arno Press, 1975)

FEFT = Full Employment and Free Trade (London, C.U.P., 1945; 2nd ed. 1948)

KB = Knowing and Being (London, Routledge; Chicago, University of Chicago Press; 1969)

LL = The Logic of Liberty (London, Routledge; Chicago, University of Chicago Press; 1951)

M = Meaning (Chicago, University of Chicago Press, 1975)

PK = Personal Knowledge (London, Routledge; Chicago, University of Chicago Press; 1958)
SFS = Science, Faith and Society (London, OUP, 1946; 2nd ed. U. of Chicago Press, 1964)
SOM = The Study of Man (London, Routledge; Chicago, University of Chicago Press; 1959)
TD = The Tacit Dimension (London, Routledge; New York, Doubleday; 1966; reprinted

Gloucester, Mass., Peter Smith, 1983)

Also:

SEP = Society, Economics and Philosophy: Selected articles by Michael Polanyi, ed. R.T. Allen (New Brunswick, NJ, Transaction Publishers, 1997).