INTERNATIONAL SOCIETY FOR SCIENCE & RELIGION

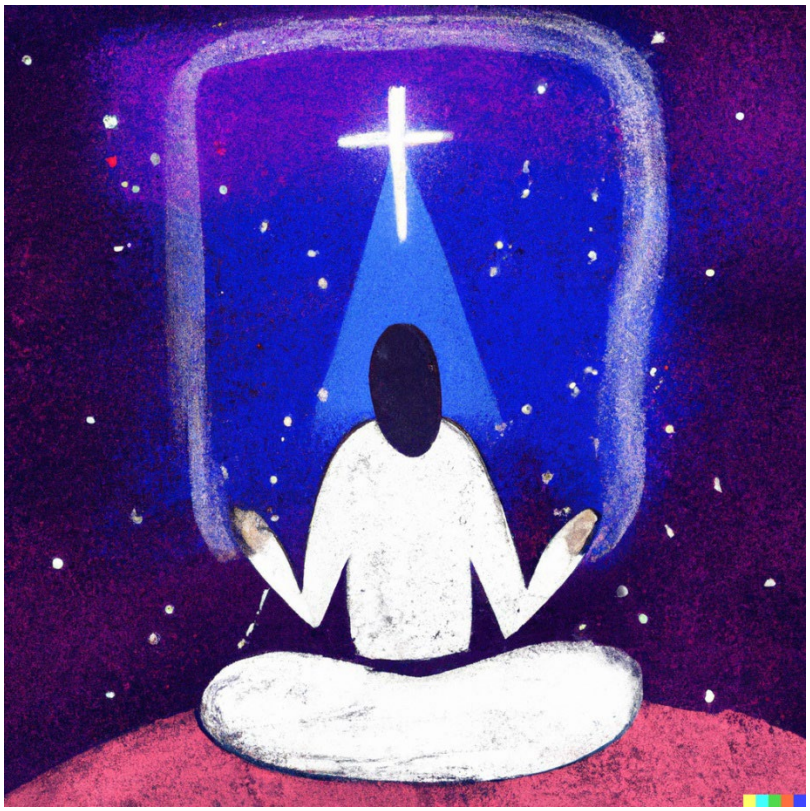
Presents

The 2023 ISSR Boyle Lecture on Science and Religion

"Attending to Attention"

by

The Rt Revd and Rt Hon The Lord (Rowan) Williams of Oystermouth



With Response by

Dr John D Teasdale

Distinguished psychologist and the author of *What Happens in Mindfulness: Inner Awakening and Embodied Cognition*

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Background to The Boyle Lectures

The original series of Boyle Lectures ran from 1692 until the early 1730s. Funded by a bequest from Robert Boyle, the celebrated seventeenth-century natural philosopher, the lectureship was re-established at St Mary-le-Bow in 2004. It now provides an annual platform for a distinguished scientist or theologian to explore the contemporary relationship between the two disciplines. The lectures aim to be faithful to the intention of their founder, who viewed religious faith and experimental science as mutually enriching.

The new Boyle Lectures are guided by an Advisory Board chaired by the Earl of Cork and Orrery (the 1st Earl of Cork, 1566-1643, was Robert Boyle's father) and since 2018 they have been arranged in partnership with the International Society for Society and Religion. They also receive significant support from a number of other parties, principally the Worshipful Company of Grocers and the Worshipful Company of Mercers. The Board remains deeply grateful to the ISSR and its other supporters for their assistance in organising the Lectures.

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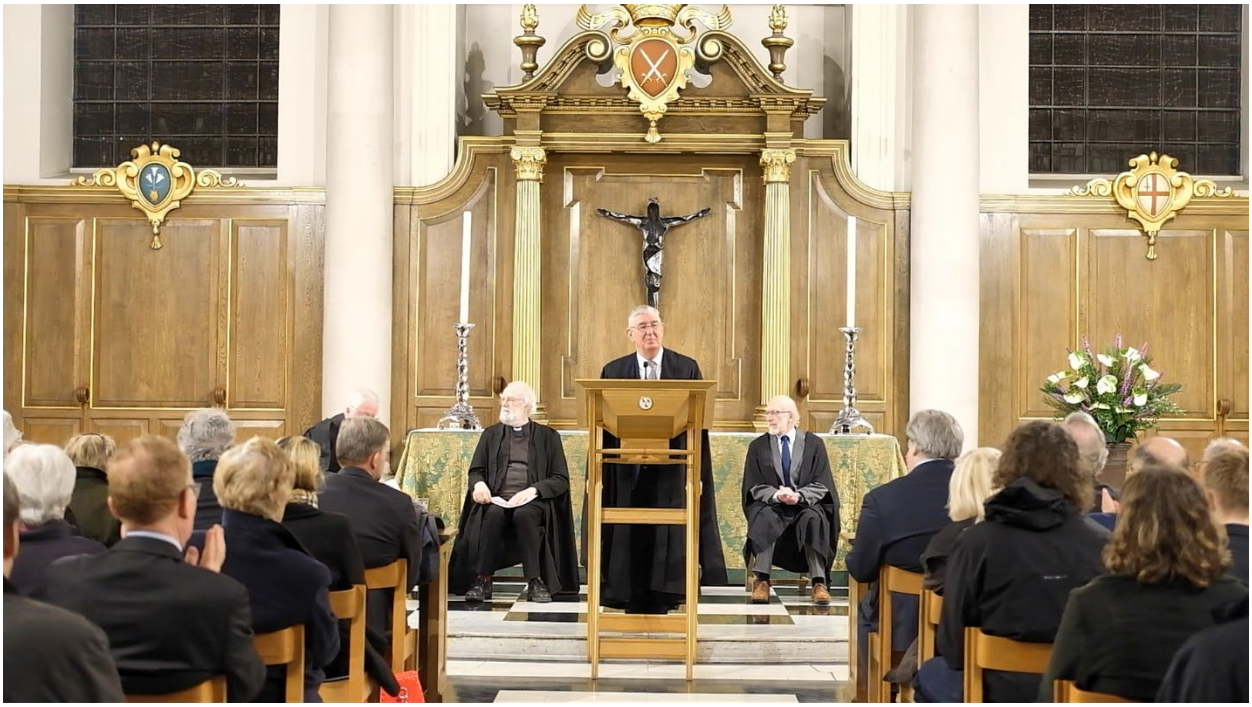
Introduction



Fraser Watts

Prof Fraser Watts is a clinical and research psychologist. A Past President of the British Psychological Society, he was Reader in Theology and Science in the University of Cambridge, and is now Visiting Professor of Psychology of Religion at the University of Lincoln. He is the Executive Secretary of ISSR.

It is a great pleasure and honour to be introducing Lord Williams (Bishop Rowan Williams) to give this evening's Boyle Lecture, and Dr John Teasdale to respond. I have known both a long time, in various different contexts, Rowan for 40 years, and John for over 50.

Rowan Williams has held many distinguished positions in both the church and academia, including Professor of Divinity at Oxford, Archbishop of Wales, Archbishop of Canterbury and Master of Magdalen College, Cambridge. He is one of the world's leading theologians and public intellectuals, with a grasp of an astonishing range of subjects. Despite all that distinction he remains a kind, humble and delightful human being, and manifestly a person of prayer, - in a way that is not always found among Bishops.

John Teasdale has held positions in the Universities of London and Oxford, and most recently held a special scientific appointment in the Medical Research Council's brain and cognition unit in Cambridge. He was a key pioneer in the development of cognitive behaviour therapy, and particularly in the development of mindfulness-based cognitive therapy. He is a practitioner and teacher of mindfulness, and also a leading figure in the scientific study of mindfulness. Last year he published a pathbreaking book on *What Happens in Mindfulness: Inner Awakening and Embodied Cognition.*

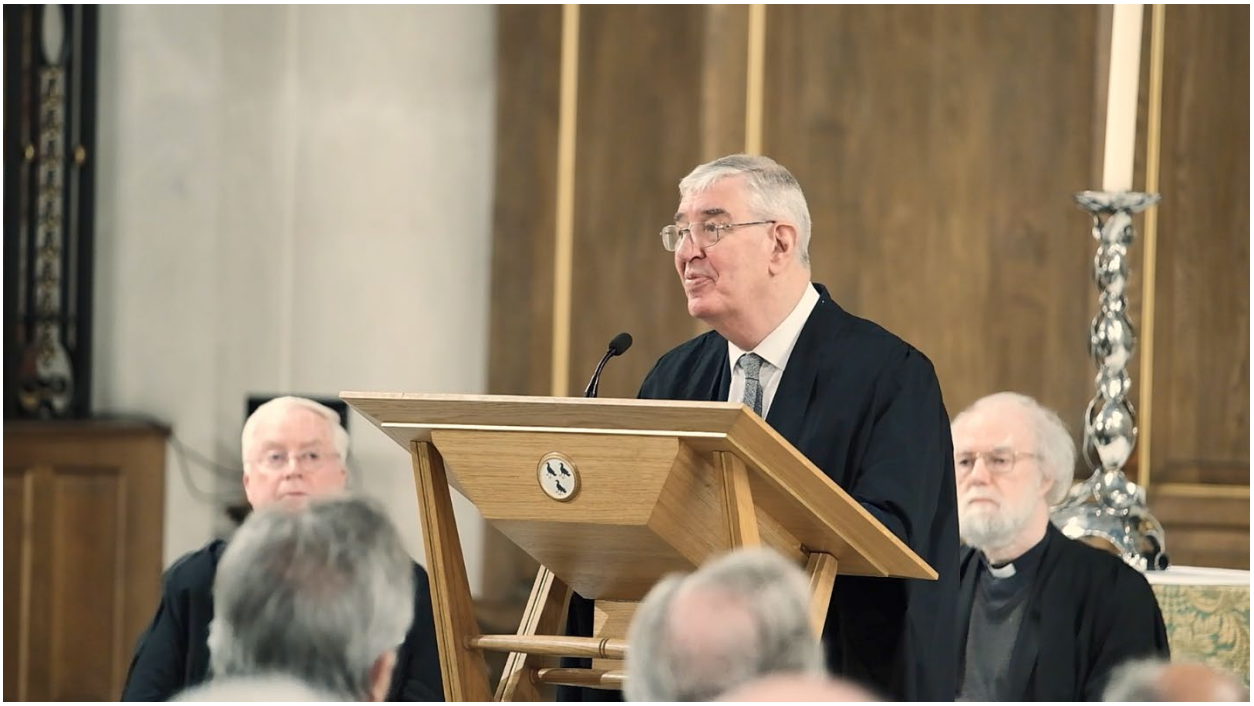
This evening's subject is "attending to attention". As this topic breaks relatively new ground in the conversation between science and religion, I will make four very quick points about why attention is an important subject for a Boyle lecture.

1. Science is based on a distinctive way of attending to the world. Robert Boyle, the founder of these lectures, in whose honour we meet today, was a pioneer of this new way of attending to nature that underpinned the scientific revolution of the 17th century.

2. In the 20th century, psychologists, philosophers, and religious writers all became fascinated by attention. There is much work to be done bringing their different approaches into conversation with each other, and we will begin that this evening, taking into new territory Robert Boyle's wish to build a fruitful exchange between science and religion.

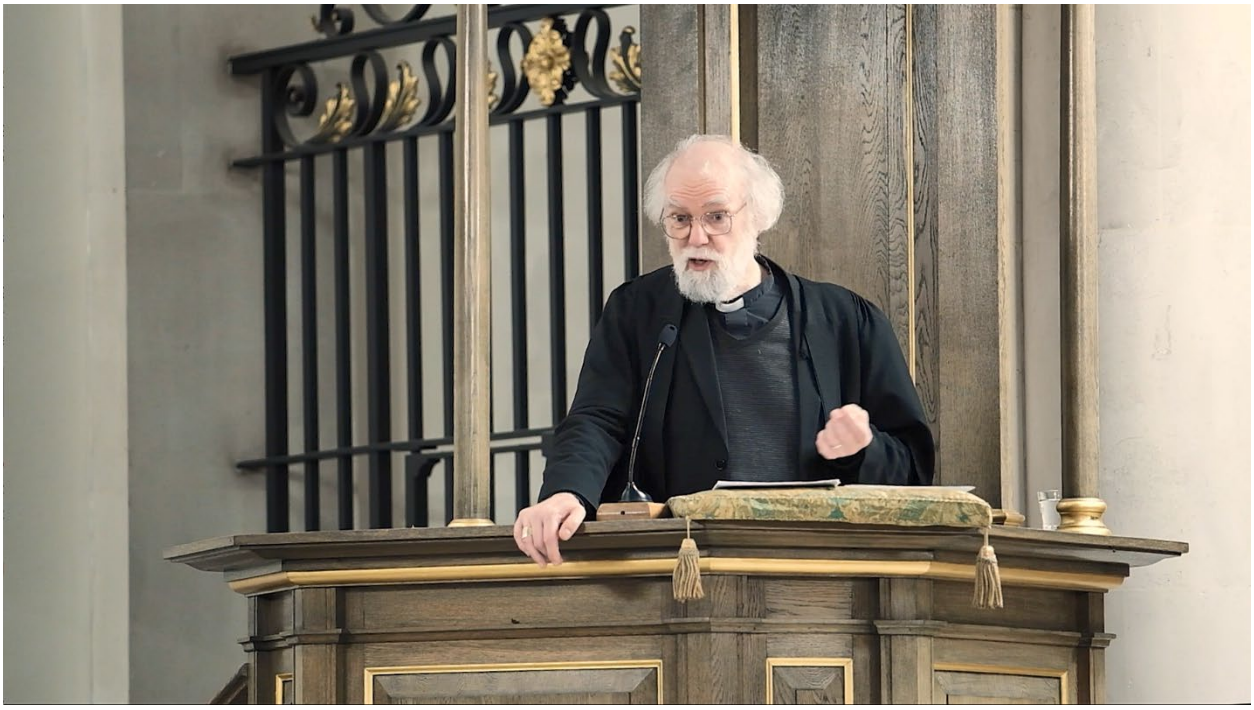
3. Understanding ourselves involves noticing how we attend to things. How we personally attend to things shapes the world as *we* know it, and shapes us. Understanding our habits of attention is crucial to understanding ourselves.

4. Most spiritual practices (and especially mindfulness) teach us new ways of managing our attention, with far-reaching consequences. I believe that many of the benefits of spiritual practices are mediated through how they shape our attention.



Lecture

Attending to Attention



Lord Williams

Lord Williams was educated at Dynevor Secondary Grammar School in Swansea, and went to Christ's College in 1968. He studied for his doctorate at Christ Church and Wadham College Oxford, working on the Russian Orthodox theologian Vladimir Lossky. His career began as a lecturer at Mirfield (1975-1977). He returned to Cambridge as Tutor and Director of Studies at Westcott House. After ordination in Ely Cathedral, and serving as Honorary Assistant Priest at St George's Chesterton, he was appointed to a University lectureship in Divinity. In 1984 he was elected a Fellow and Dean of Clare College. During his time at Clare, he was arrested and fined for singing psalms as part of the CND protest at Lakenheath air-base. Then, still only 36, it was back to Oxford as Lady Margaret Professor of Divinity for six years, before becoming Bishop of Monmouth, and, from 2000, Archbishop of Wales. In 2002, he became the 104th Archbishop of Canterbury.

Discussions of attention often cite William James's definition of it as the mind seizing on 'one of several simultaneously possible objects or trains of thought.' In a different idiom, more recent treatments speak of it in terms of the flexible deployment of 'limited computational resources' [Lindsay 2020]. The underlying model, however, remains the same: there is a landscape of stimuli, out of which 'attention' selects a specific set of data for further processing or connecting. It is a model that gets us only so far; and what I hope to do here is both to note where it needs amplifying and reworking, and to draw out some of the implications of such reworking for a wider approach to our understanding of knowledge itself. Central to this interrogation of the widespread model mentioned is the work of Maurice Merleau-Ponty, especially in his *Phenomenology of Perception* [1965]; but Iain McGilchrist's monumental recent work, *The Matter With Things* [2021] also provides some significant prompts for rethinking the more simplistic versions of the conventional approach. And in the light of this, we shall also be revisiting the way in which 'attention' is used by some philosophers as a morally and spiritually charged phenomenon, in the hope of seeing whether there is any kind of

bridge between the psychological and neuroscientific investigation of attention and this more 'humanistic' discourse.

Merleau-Ponty devotes a chapter at the beginning of *Phenomenology of Perception* to '"Attention" and "Judgement"', in which he explains at some length the paradoxical character of traditional appeals to the simplicity of sense experience, and argues that both mechanistic materialism and idealism involve a series of strategies for *avoiding* the actual operation of sense experience. What the senses *in fact* deliver is indeterminate, inconsistent and radically incomplete; and sustained reflection – including scientific examination – needs to begin with the awareness not of a set of discrete and ready-made external data but of a *modified consciousness* , 'a transformation of the mental field' [29]. What the senses 'literally' deliver is a field of inchoate perception with which we actively negotiate, which we interpret, connect and organize before we begin reasoning about it. Merleau-Ponty uses as an instance here the processes by which an infant learns to discriminate colours after about nine months: it is not that the infant's mind is receiving a set of colour-coded stimuli and failing to sort them out 'accurately'; what is going on is that the infant consciousness is being introduce into a field in which it progressively adjusts to a stream of information, developing more or less consistent protocols for sorting it. After a certain point, it is able to formulate a kind of narrative in which what are now seen as discrete colours can be understood as potentially present in the earlier and indeterminate phase. To put it more concretely: it is not that the infant is seeing 'green' but seeing it inadequately; she is mapping a perceptual territory in which 'green' finally emerges as a durable and useable component of that map. Although Merleau-Ponty does not explicitly make the point, this is consistent with the fact that different cultures notoriously divide up the palate of colours in different ways (especially at the 'darker' end of the spectrum, where purple, blue, grey and green are 'clustered' differently in different taxonomic vocabularies).

In this sense, attention is not essentially a focusing of internal resources on pre-existing external objects so as to pick them out correctly against their background; it *constitutes* such objects by creating particular boundaries or outlines within the previously indeterminate

perceptual field. Elements in this field combine to activate elements in the modified consciousness, and what emerges is the object we then – so to speak – file for further reference. Subsequently, that co-operatively generated object is presupposed in acts of 'judgement' when certain features of a perceived environment give sufficient leads for us to suppose the presence of the object: 'The men I see from a window are hidden by their hats and coats, and their image cannot be imprinted on my retina. I therefore do not see them, I judge them to be there' [32]. This 'judgement' is not an explanation to make sense of – or even 'correct' – confusing percepts; it is an act of interpretation that produces the very possibility of a coherent object. It is, in that regard, a 'transcendental' action, one that relates to establishing the possibility of consistent experience. Merleau-Ponty speaks of a 'perceptual syntax' [36] which gives structure to the various relationships with our environment in which we stand. The key word here is 'relationships': to speak of an object that is 'constructed' by judgement or imagination or a sort of synthetic instinct is not at all to say that objects are born from the ego or the mind as pure self-reflection; they are held together as what could be called a continuous strategy of responding to certain stimuli. Both an empiricist and an intellectualist or idealist scheme operate with an unexamined notion of sensation, and a timeless model of the normative object; empiricism presupposes that this normative object is simply there as a source of orderly and connected stimulus, while intellectualism presupposes that this orderly and connected unit is generated by the individual consciousness as a determination of its own immanent capacities. What Merleau-Ponty is sketching is an account of objects of attention that takes seriously the location of consciousness in space and time – the involvement of consciousness in the body's immediate negotiation with what surrounds it, and the processes by which consciousness gradually constructs its strategies of judgement. 'Consciousness must be faced with its own unreflective life in things and awakened to its own history which it was forgetting: such is the true part that philosophical reflection has to play, and thus do we arrive at a true theory of attention'[31]. This 'true theory' is one that reckons with the active and formative role of attention and the need to see it in relation to time and learning.

To understand attentive perception as the construction of a field to be explored is to refuse (on the one hand) a simple cause-and-effect picture of what happens in the conscious registering of

the world around, and (on the other) the idea of a sequence of finished conceptual crystallizations of the subject's own reflexive awareness. The argument is one that aims to dissolve a set of unhelpfully exclusive binaries – the Cartesian opposition of extension and thought, the separation of sign and meaning, the opposition between cause (external determination) and reason (a principle of intrinsic constitution) [49]. William James's formulation about 'simultaneously possible objects' needs to be nuanced a bit, so as to do justice to the recognition that these 'possible objects' are not simply lying around ready-made. And this recognition is very importantly inflected by the ways in which we now know that different brain areas construct different kinds of object, or (as we might put it) different qualities of 'objecthood'. Thus in Iain McGilchrist's *The Matter with Things* [2021} we are introduced to the diversity between what is projected by left brain and right brain. Right hemisphere damage (affecting the left visual field), for example results in a perceptual world in which there are fewer or no tools for what I have called 'negotiating' the full range of 'possible objects'; the modification of consciousness is partial, and so what is seen is partial. But what is most striking is that this partial consciousness has no means of understanding that it *is* partial: 'As far as your left hemisphere is concerned, what it no longer attends to is not just unseen, but *ceases to exist.* The left hemisphere, it seems, is a Berkeleyan idealist.' [74] Further, it appears that radical impairment of right hemisphere activity results in a dysfunction in the understanding of time. This can manifest as a forgetfulness of previous perceptions, as the breaking-down of the continuities of perception into a kind of 'freeze frame' effect, as the inhibition of previously familiar bodily skills and so on. It is a condition, in fact, which makes impossible precisely the 'awakening of consciousness to its own history' of which Merleau-Ponty speaks. But the dysfunction also extends to location in space; McGilchrist gives several dramatic instances of what this can mean, including the suppression of depth perception. The activity of the right hemisphere, in short, is what secures continuity both in time and in space [75-83], and its severe inhibition makes it impossible to recognize the temporal character of consciousness..

In this context, attention needs to be refigured as a much more complex process than the plain selection of discrete stimuli. Whatever the exact nature of the stimuli that modify the field of

consciousness, they are not helpfully represented as fixed *items* of information. We have to take seriously the roots of the very word 'information': consciousness is *given form* by what it encounters, but simultaneously *gives* form to this. A reciprocal activity is taking place in which 'outer' and 'inner' flows of energy combine to produce a settled habit of perceiving – a protocol, as I called it earlier, for dividing up the field in which consciousness finds itself – and a coherent, narratable relationship. In this reciprocal activity, granular perception of significant detail in a field is consistently framed by the temporal sense which allows objects to be seen continuously, so that any particular moment (like Merleau-Ponty's instance of looking down on the figures in hats and coats) can be pre-reflectively grasped as belonging in a series that can be assumed to be a continuous succession of perceptions altered by different stances, locations or perspectives on the part of the perceiving subject. But what is philosophically interesting here is that a concept of attention informed by these considerations is not simply a specific deployment of 'computational' resources (though it is at least that for certain purposes); it is also something shaped by the need, pressure or desire to chart a path through time and space in which the subject can safely and intelligently move. And because of this, no supposedly granular item in the perceptual field can be seen or analysed in isolation, or regarded as a wholly fixed reality. If I 'create' an intelligible object, it is as part of a wider strategy; in William James's terms, it is bound up in a 'train of thought'. And as the global context of such a train of thought or comprehensive strategy shifts, so do the boundaries of the object.

In one obvious sense, this is an elementary observation on the history of science. The ongoing refinement of investigative techniques changes the way we divide up the perceptual field. But the phenomenology of attention so far outlined presses this a little further. It is not only the technical close-focus changes that shift definitions of finite substance, but the new constraints of the kind of world-view that is emerging, with the acknowledged needs and questions that come with this. Thomas Kuhn's classic work on paradigm shifts [1962/1970] observed this; but - as some critics noted – his initial use of the term 'paradigm' was loose, and the question of the nature of attention itself is not directly addressed. Changing world-views change the questions that are asked; but recognizing this – if it is not to be a doorway into simple relativism or constructivism – should alert us to the question of what it is that shifts the questions asked, in a

way that goes rather deeper than merely noticing previously unresolved problems. And Kuhn's thesis about the incommensurability of comprehensive scientific theories does less than justice to what the phenomenological approach assumes, which is that it is possible to suppose a shared world of information flow in which diverse maps and taxonomies are not incommensurable in the crude sense of being wholly mutually exclusive but continue as 'compossible' readings of what that world allows. What consciousness learns about itself in the processes of scientific study is that exposure to its own history that is needed in order to liberate us from the illusion that the normative model for attentive knowing is the simple turning of a specific beam of illumination on a set of fixed data. We are, it seems, primed for the construction of diverse narratives of the consistency of what we encounter, narratives whose diversity is conditioned by the diversity of *relations* in which, at different times and places, we stand to that encountered flow of information. Attention will crystallize different clusters of informational content into a strategy or protocol, depending not so much on the problems we want to solve as the connections we wish – in *this* specific kind of relationship – to clarify or articulate.

What is more, thinking of attention as part of a reciprocal process sharpens our awareness that our own perception shifts the parameters of what is possible for the object. If the subject is finding their way through a complex environment, adjusting and negotiating, then in some sense the *object* is also adjusting to an environment in which the subject's interaction with it shifts the boundaries of its reality by modifying the object's field of possibility (the field of what relations are available for it). This is the point at which some exponents of classical scientific method shows signs of alarm at what may be represented as panpsychic mythologizing ; but it seems to be an unavoidable implication of both the general model presented here of attention as the formation of a strategy of relating, and of the ontology associated with discourse around quantum mechanics. Carlo Rovelli's introduction to this perspective [*Reality Is Not What It Seems,* 2014/2016] summarizes the point lucidly:

'What if the electron could be something that manifests itself only when it interacts, when it collides with something else; and that between one interaction and another it had no precise position?' [100]

And:

'When an object (atom, electromagnetic field, molecule, pendulum, stone, star, and so on) interacts with something else, the values computed are those which its variables can assume *in the interaction*.' [104, my italics]

If the flow of information to an embodied consciousness is indeed the creation of a relation rather than the mere registering of data on a passive recording device, we can reasonably speak about our knowledge of objects as a stage in the global adjustment of fields of exchange. The activities of an object are from one point of view just as much habitual 'strategies' as are the conceptual tools with which we find our way around and with them (cf Rupert Sheldrake's discussion in his ambitious and still controversial 2012 essay on *The Science Delusion*, esp. 99-104). And in this context we might return to McGilchrist's treatment of lateralized brain functions, to note that left hemisphere activity is, in effect, only an occasional and limited vehicle for relation, since it is not able fully to process the passage of time – the processes of adjustment as well as the experience of consistency – in which relatedness is actualized. McGilchrist speaks of the 'loss of the whole at the expense of the parts' in the body's defective self-representation in a condition of right hemisphere damage or inhibition, and contrast the left hemisphere as that which 'sees the body as an object "out there" in space', as opposed to the right hemisphere's sense of the body as a whole as an inhabited point of orientation [99]. He goes on to note the dominance of right hemisphere activity in small children – as if the primary need for the developing consciousness was to secure habits of connection in the perceiving of the object world [103-4] before refining its capacity for detailed cataloguing of its environment. In McGilchrist's terms, it goes for 'depth' before 'precision' [104]; precision is in fact possible only when depth has been settled – that is, when there is a recognition of how objects are fitted into a multi-dimensional perspective and are apprehended continuously – though flexibly – over the passage of time. The very idea of an object or a substance requires

the coherent framing of the right hemisphere's activity. But at the same time, such framing is not simply the more accurate mapping of an external territory which the consciousness looks 'out' upon; it could be described as a set of instructions both for how to organize incoming information and for how to find an intelligent and consistent way around what resists my own body in its movement in the world. It creates not the map of a detached landscape but a path through what I already inhabit and engage with. It populates this space in which I am engaged with objects or substances whose precise activity upon me is given form by the specific questions I pose or problems I seek to resolve; and I need to keep alert to how, when questions change I may expect new 'resistances', new capacities or possibilities to come into focus. And in thinking about this, it is helpful to bear in mind that an artificial computational system will be able to negotiate an environment only to the extent that it has been provided with responses to a determinate set of informational input: in Kazuo Ishiguro's remarkable 2021 novel, *Klara and the Sun*, we have a vivid description of the 'sensory' confusion of the eponymous 'Klara', an advanced AI device, when confronted with a physical environment beyond the existing programme's limits.

So, to sum up so far: the attention we give to the world around us is indeed a necessary narrowing of our conceptual and 'computational' resources in order to negotiate our way with certain kinds of resistance and difficulty, and to realize certain kinds of possible relationship. But it is important not to reduce this to a simple picture of discrete subjects 'out there' which we are trying to see more accurately; even more important, arguably, to avoid the seductive idea that there is one set of clear data which will prove to be fundamental in understanding what is in front of us, so that we can safely ignore or at least downgrade other kinds of descriptive response because these will provide 'inferior' levels of explanation. Attention must attend to the inescapable multi-layered diversity of object-construction that is going on, even though it can only develop one particular line of engagement at a time. The unhelpful stand-offs between reductionism and holism, the arguments about the relative status of – say – chemical and biological or mathematical and ergonomic explanation, are radically misplaced [I acknowledge a debt here to unpublished work by Professor Conor Cunningham on the difficulties with the idea of a 'basic' explanation in the sciences]. The issue is not about which

explanatory discourse is the one on which all others depend, since (just as in the Aristotelean vocabulary about different sorts of causality, material, efficient, formal and final) there can be no viable or sustainable account of how to negotiate a path in relation to the environment that systematically ignores any one coherent set of possibilities for discourse. Furthermore, attention to the diversity of the object-construction that is going on is bound up with Merleau-Ponty's insistence on consciousness registering its own temporal and flexible character, its own process of learning how and why diverse questions are worth asking. As revisionist science has often insisted in the last century or so, it is not that (say) Newtonian physics is a *mistake* from which we need to be delivered; the point is that what is coherently thinkable is not exhausted by *those* questions; and to suppose that it is would be to set in stone a refusal to attend as comprehensively as we need to.

But this begins to steer us towards a very different sort of discourse about attention, which on the face of it seems to have little or nothing to do with what we have been considering so far. Since the publication of Simone Weil's essays and notebooks (*Waiting on God* in 1951, two volumes of *Notebooks* in 1956), her concept of 'attention' has been repeatedly revisited and elaborated. It is one of the focal themes of her writing: *attente* is defined as that quality of awareness of what is other (the other person, the object, the grammatical rules of a language or the procedures of mathematics) that necessarily 'suspends' the self-preoccupation of the ego so as to allow the independent reality of the other to be fully received into the subject. She will write of this in terms of 'de-creation', the necessary sacrifice of the self in the process of learning, and she argues that educational and scientific work so understood is an intrinsically spiritual activity, in that it creates a space between subject and object in which the compulsive violence and acquisitiveness towards the other that characterizes the habitual life of the ego is negated. As Nigel Tubbs puts it in his *Philosophy of the Teacher* [2005], the implication is that education is not solely about the truths associated with the content of the teaching process but about the truth 'in the relationship that the student has to the content' [127].

One of the paradoxes of Weil's moral and spiritual analysis of attention is that it requires the consciousness to be aware that its own *self*-consciousness is one of its most serious

problems. The self's awareness of its own needs or desires can reduce the object to the dimensions of what the subject is looking for, and no more; and the self's awareness of its 'performance' in relating to or negotiating with its environment becomes an object in itself which impedes or distorts the capacity of the informing energy of the other to affect the subject. Radical *attente* is both the recognition of the ambiguity of self-awareness and the discipline of exposure to structures that have to be received in their otherness for them to be truthfully engaged. Because the learning of a language – to take one of Weil's favourite examples – involves the sheer labour of internalizing rules we have not chosen, it serves as a paradigm for undertaking labour that does not immediately produce gratification. We acknowledge the risks in the centripetal force of the ego's customary habits, and we also register (as Merleau-Ponty would insist; it is worth noting that he, like Weil, had been influenced by the epistemology of Alain [Emile Chartier], though he has criticisms of its details) the necessity of seeing how we have in fact learned, how the consciousness has been modified. Hence a voluntary engagement with disciplined study becomes a tool for detaching the conscious self from its own initial concerns and priorities: the good student is one who does not measure what is studied by its congruence with their own supposed needs or interests, and equally one who does not constantly observe themselves studying.

The register of this discussion is of course very different from the philosophical and methodological concerns with which we began; but there is a point of contact in the rejection, shared by both approaches, of the model of conscious attention as a 'searchlight' of individual mental activity directed at a selected set of discrete phenomena. The attention discussed by Merleau-Ponty and others is receptive to an active other so that the active subject may become more adequately attuned to the object's agency, while also acting upon the field of that object's possibilities so as to give it consistent and intelligible presence in the consciousness. The intrusion of a pre-critical set of projections or expectations on the part of the perceiving subject will get in the way of a truthful, sustainable strategy of response to the incoming information; and the outcome of the encounter is the modification of the subject's field of operation and awareness. We have to turn our backs on the idea that there is a fixed self appropriating functionally useful information about a set of fixed phenomena, and consider

the model of a constant flow backwards and forwards of information leading to adjustment and modification on both sides. For Weil and those how have followed her, the de-centring of the ego and its portrait of its needs and agenda is the fundamental principle of any action that can be considered moral or spiritual. The modification of the consciousness in attentive observation and the knowledge that emerges from it is inseparable – whether the connection is acknowledged or not – from the relativizing of the 'I' that is necessary if ethical action is to be possible.

And for Weil there is a further dimension: the de-centring of ego in the work of disciplined knowledge prepares the finite self for the apprehension of the infinite. This is to go well beyond the categories of the phenomenological analysis of attention we have been sketching, but it is worth exploring what convergences may be traced. We might begin by asking what the most comprehensive form of the modification of a field of consciousness would entail. In the perspective here outlined, such an optimal level of awareness is certainly not something that could be thought in terms of a final, definitive mapping of information received in distinct causal and conceptual packages – and certainly not in terms of reduction to a supposedly 'basic' matrix of causal factors. It would be the recognition of a diffused but also connected informational energy in which subject and object were alike involved, the recognition of what David Bohm famously called the 'implicate order' [*Wholeness and the Implicate Order,* 1980]. By definition, this could not be the awareness of a determinate object separate from the observer; it would be to recognize a comprehensively dependent and relation-defined position (or continuous series of positions) in the immeasurable and Protean pattern of exchange that constitutes the finite universe. It would be a 'knowledge' of the method or process of intelligent observation rather than the concept of some comprehensive system, let alone an infinite 'object'. And the further – obviously contestable – point that a religious moralist like Weil would make is that this bare but at the same time 'global' awareness of one's own condition as ceaselessly being-informed presupposes an imperative always to move the ego out of the centre of any discourse or policy; while at the same time presupposing that what arises when this de-centring has taken place is the establishing of a space in which diverse life may blossom without the constraints of force or power exercised by another finite reality. In

such a condition, there is an implicit recognition of a kind of ideal equilibrium in finite life which allows each strand in the interactive complex to fulfil its potential as both gratuitous and well-ordered – beautiful, if we have to use a shorthand. The very form of finite interaction in its most unconstrained working takes us beyond the level of function or stimulus and response to the idea of a maximal manifestation of congruency, order and harmony for its own sake. And the universal schema of congruent energy in unceasing exchange leaves us with a question about the generating and unifying ground or context which is made manifest in the temporal processes of exchange; a question which some will dismiss as unnecessary, even inappropriate, but which has recurred with some regularity in cosmologies through the ages.

Allowing such a question to arise in and through the receptive understanding of the place occupied by consciousness in the flow of exchange that is the universe is tantamount to a comprehensive attending to what is not in any sense a *particular*. It begins with attention to the more and more complex strands of interaction in which we know ourselves to be involved, and culminates in an unavoidably paradoxical attention to the generative and cohesive but unimaginable agency out of which finite patterns of interaction flow. In the language of traditional theology, it moves from the 'contemplation' of the universe's order to the awareness of this order as reflecting a living force, what Scripture and tradition recognize as divine 'Wisdom'; and, inescapably, it points to action that cannot be imaged or conceived, to what is unlimited, unborn, unavailable to language. 'Attention' culminates in the contemplation of what cannot be understood, but which is the source of a life in which the subject may become more and more freely involved precisely as it resigns its claim to separateness or self-authorship.

This is simply to rehearse in a more contemporary and abstract idiom what the early Christian teachers had to say about the interrelation of the different kinds of *theoria* in the growth of human awareness of the divine. *Theoria* may be translated as 'contemplation' but its simplest meaning is 'attentive looking'; in the scheme classically articulated around 400 CE by Evagrius of Pontus, *praktike theoria* opens out on to *phusike*, which in turn leads to *theologia*, the absorption of the finite subject in the intelligent life (*logos*) of God – 'contemplation' in the

sense usually given to that word. *Praktike* represents the training of the self in behaviours that are free from 'passion', the passivity in the face of instinct, compulsive desire, self-oriented emotion and so on which impedes the liberty of the intelligent subject, the *nous*; freedom from passion liberates the subject to see more fully the rational beauty of the created order, not as it exist in relation to the subject but as it reflects the mind or wisdom of God; and that attention to the unifying structures of the phenomenal universe opens in turn on to the imageless receptivity to the creator which is the summit of all intelligent activity, the realization of what is distinctively human. It is imageless because the divine is not an instance of any kind of being, not a causal agent among others within the universe, and so not capable of being summed up in conceptual, let alone imaginative form. *Theologia* is a form of attention that is both the most natural of human activities and the most eccentric – natural in that it is the culmination of more localized habits of attention, eccentric in that it has no determinate/boundaried object, but is a state of simple receptivity to what cannot (unlike the self's other objects) be negotiated with or crystallized into conceivable form, since it is the principle or source of form-as-such, sheer active intelligence. For the early Christian writers who use this as a canonical structure, it is also crucial that the ultimate contemplative receptivity envisaged is configured as *agape*, love, since this is identical with an attention that is wholly directed away from the ego; it is the 'space' in which the divine is most fully encountered, since the divine life/intelligence has no boundaried ego to defend and so is met and engaged with as what can be thought of as unqualified 'gift', direction to the other. As for Weil, attention and love converge – but 'love' in a sense very different from an emotional disposition.

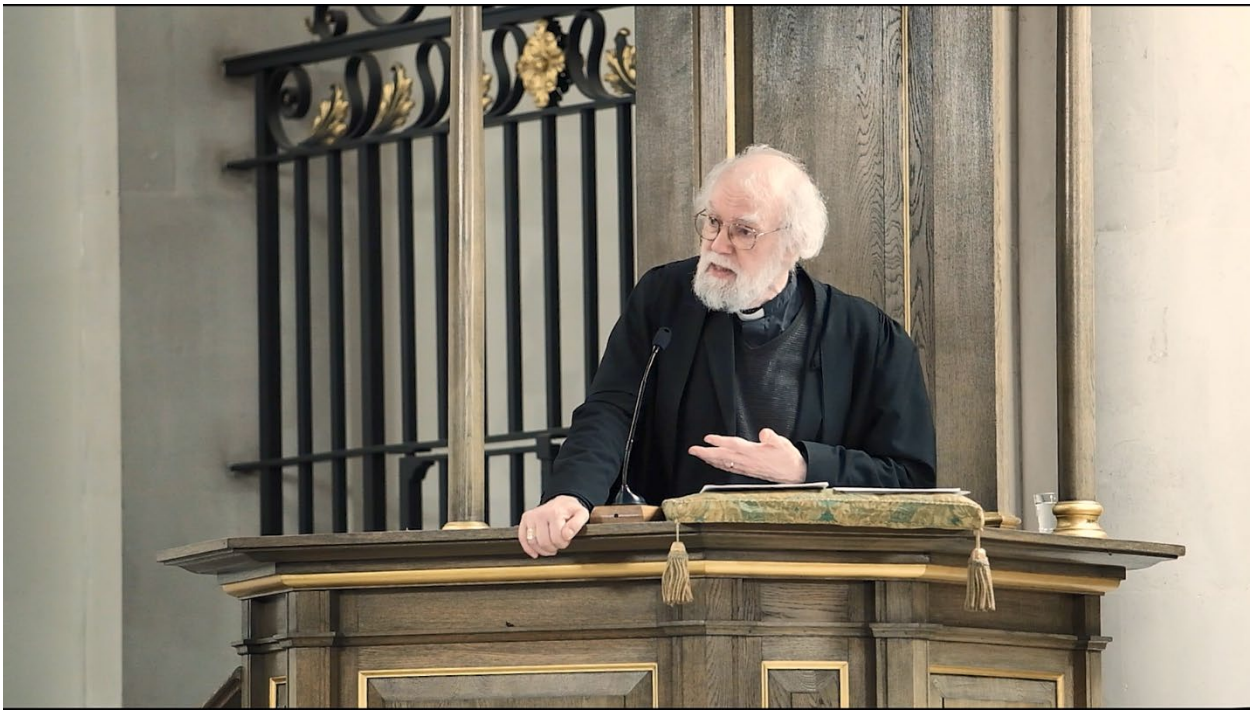
Attending to attention proves to be a many-dimensioned task. We have begun from the methodological and philosophical point that the data of the senses cannot be taken as fixed quanta of information delivered to a passive observer; thinking of them in such a way prevents us looking clearly at what is actually before our senses, and leads us to ignore the inescapable role of what I have been calling negotiation between inner and outer, the gradual construction of habits of seeing in which consistent objects are formed as, simultaneously, the consciousness is modified, in-formed by what impinges upon it. When we attend to something – an object, a series of phenomena, an argument, an artefact – we are drawing out of it a possible structure

which will contribute to one particular instance of world-building. A truthful or adequate structure will be one that proves its coherence and durability over time; and attention also requires us to be aware of the time-taking, so as to protect us from a mythology of timeless and unrelated objects waiting to be known. We need to be aware also of the imbalances in conscious apprehension associated with lateralized functions in the brain, as a reminder that the *idea of an object or substance* is impossible without the 'transcendental' dimension of a temporal and dimensionally spatial environment being present. Attention of this kind thus entails a generalized awareness of the presence of what we do not perceive specifically as objects, and of the possible diversity of paths of realization for potential objects. And this carries with it a critical recognition of the limits of the individual ego's capacity to produce any single comprehensive or definitive structure. The most damaging mistake we could make in thinking through the phenomenological approach to attention would be to imagine that the subject's constructive or world-building role was the imposition of a pattern devised by the mind's power, rather than the product of discerning what coherent structure of aspects in the object might find place in one strand of a generally adequate 'strategy' of sustainable relation with the world around.

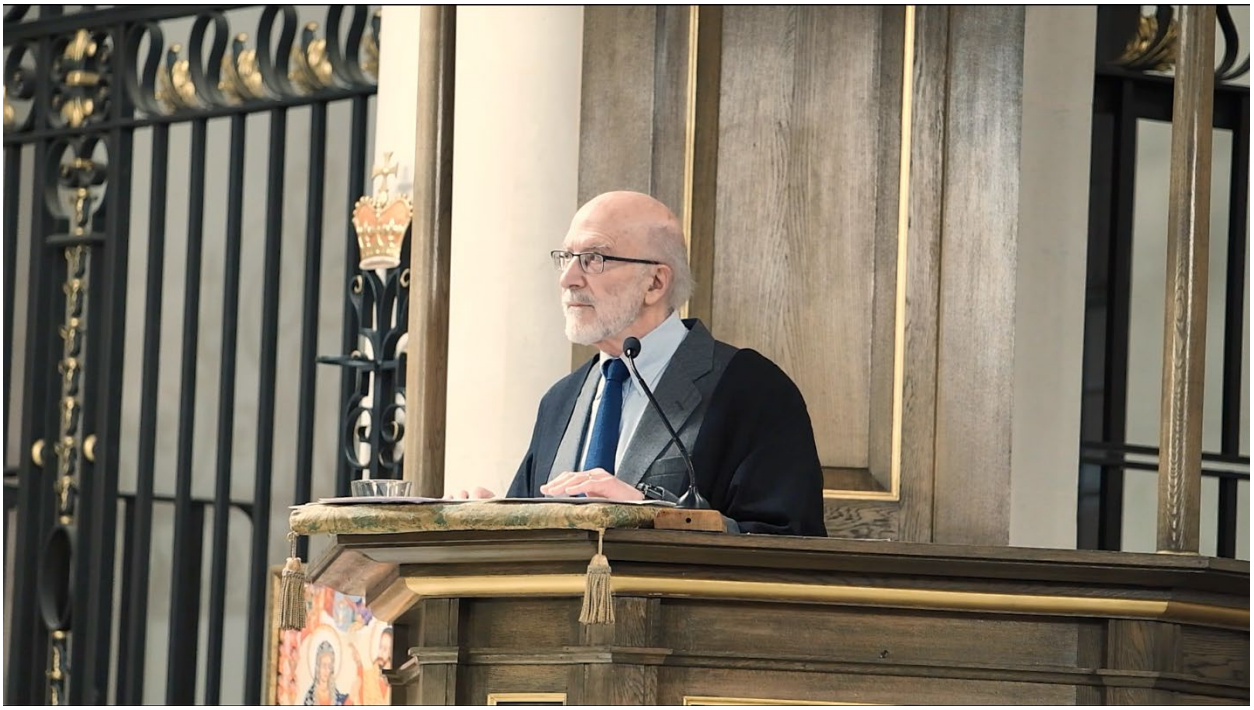
This offers a bridge into the discourse around attention associated with Weil and others, for whom the suspension of the claims of the individual ego is fundamental not only for truthful knowledge but for moral action. The subject in attention suspends the potential violence of manipulating the object into one final determined pattern, recognizing that it is dealing with forms of active energy that share a process of constant mutual adjustment with the action of the knowing subject. This subject is thus neither passive nor omnipotent, neither determined nor context-free and arbitrarily powerful. But in addition to its negotiation with particular flows of information in its routine operations, the subject is also capable of 'attention' to what makes information and energy possible, but is beyond strict conceptualization; its detachment from its ingrained self-preoccupation through both the ethical life and the disciplined life of intellect, both of these entailing an attention that is receptive and flexible, may prepare it for this radical openness to a sort of undifferentiated communication, the sheer 'bestowal' of generative gift or love. And this in turn reinforces the habits of ordinary ethical and intellectual attention.

It follows that some of the physical habits which enable deeper attention in relation to both finite and infinite otherness are related. The practices that are associated with meditation – silence, attention to the breath and heartbeat, a drawing inwards towards a physical point of focus so as to minimize unnecessary movement and so on – will assist in receptivity towards finite phenomena. As Merleau-Ponty's analysis suggests, adequate or truthful knowledge emerges from an early phase in which there is an openness to the indeterminacy of what is perceived such that we are subliminally aware of potentials other than those about to be realized in granular conceptualities. And the experience of such openness in the ordinary history of consciousness, the practice of relaxed but alert physical and sensory focus, can help to demystify and support the more unrestricted receptivity demanded in meditative or (in the stricter sense) contemplative states. As Weil argues, the ethical and intellectual can be construed as 'indirect love' for the Unconditioned, for God, to the extent that it works by 'waiting upon truth, setting our hearts upon it, yet not allowing ourselves to go out in search of it.' [*Waiting on God* 73] Weil's phrasing is not without its problems. When she says [149] that 'Seeking leads us astray', so that we must always wait upon a new scientific truth to deliver itself to us because our attempts to master it will be distorting, she comes close to denying the active role of a consciousness that inevitably learns to map its environment by deliberate trial and error; and her insistence on the *destruction* of ego – as if the specific locatedness of the particular subject had no contributory significance – remains an area of tension and even contradiction in her thinking, comparable to her extraordinary animosity towards her own Jewish identity and heritage. But the overall structure she outlines, in which all real learning entails the suspension of the unexamined ego, is one that permits essential connections to be made between pedagogy, compassion and the love of God. If '[t]he giving of one's attention to learning is of the same quality as the giving of one's attention to suffering' (Nigel Tubbs, op.cit. 127], and if attention to suffering is one of the clear marks of an awareness of and participation in the divine perspective, 'the plane of supernatural love' [Weil 112], there is a thread leading from research to meditation which opens up a consistent and challenging doctrine of human learning and knowing, and requires a commitment to understanding the process of knowing as a necessary dimension of any learning worth the name. In the general task of brokering the

conversation between scientific discourse and the world of religious reflection and discipline, an attention to attention may yet prove a fertile field; I hope that these very preliminary thoughts may contribute to a more systematic and extended treatment.



Response



John D Teasdale

John Teasdale, PhD, held a Special Scientific Appointment with the United Kingdom Medical Research Council's Cognition and Brain Sciences Unit in Cambridge, England. He is a Fellow of the British Academy and the Academy of Medical Sciences. Dr. Teasdale collaborated with Mark Williams and Zindel Segal in developing mindfulness-based cognitive therapy (MBCT) to prevent relapse and recurrence in major depression; together, they coauthored *Mindfulness-Based Cognitive Therapy for Depression, Second Edition* (for mental health professionals), as well as the self-help guides *The Mindful Way Workbook* and (with Jon Kabat-Zinn) *The Mindful Way through Depression*. He has also published numerous highly cited articles in refereed journals. Since retiring, Dr. Teasdale has taught mindfulness and insight meditation internationally. He continues to explore and seek to understand the wider implications of mindfulness and meditation for enhancing our way of being.

- It is an honour and a privilege to have this opportunity to respond to the Boyle Lecture presented by such a distinguished and respected figure as Lord Williams.
- In my response, I aim to illustrate how Lord Williams' analysis resonates powerfully and pleasingly with current thinking in cognitive science.
- To begin, let's consider an intriguing idea proposed by Anil Seth, Professor of Cognitive and Computational Neuroscience at the University of Sussex. He suggests we can see perception as a form of controlled hallucination. He explains his view like this: "the brain is constantly making predictions about the causes of its sensory signals, predictions which cascade down through the brain's perceptual hierarchies. If you happen to be looking at a coffee cup, your visual cortex will be formulating predictions about the causes of the sensory signals that originate from this coffee cup.

  "sensory signals -which stream into the brain from the bottom up or outside in – keep these perceptual predictions tied in useful ways to their causes. … By adjusting top-down

predictions so as to suppress bottom-up prediction errors, the brain's perceptual best guesses maintain their grip on their causes in the world.

"The most important ingredient in the controlled hallucination view" he continues "is the claim that perceptual experience – in this case the subjective experience of 'seeing a coffee cup' – is determined by the content of the (top-down) predictions, and not by the (bottom - up) sensory signals. We never experience sensory signals themselves; we only ever experience interpretations of them. ….

"It *seems as though* the world is revealed directly to our conscious minds through our sensory organs. With this mindset, it is natural to think of perception as a process of bottom-up feature detection – a 'reading' of the world around us. But what we actually perceive is a top-down, inside-out neuronal fantasy that is reined in by reality, not a transparent window onto whatever that reality may be." End of quote.

- Counterintuitive as it may seem at first glance, Seth's view resonates powerfully with Lord Williams conclusion that phenomenal experience is not simply the result of the mind passively registering the presence of pre-existing objects. Rather, as he suggested, phenomenal experience is the outcome of a continuing dynamic interaction between, on the one hand, information arriving from the senses and, on the other, the interpretations our minds construct to make sense of that information.
- The good news from both Seth's and Lord Williams' views is that the substantial top-down, inside-out contribution to the way we see the world opens an exciting possibility. This is that we can develop new, more wholesome ways of seeing the world. And, as Lord Williams suggests, one of the key vehicles for creating these new worlds of experience is attention.
- It is a commonplace that we can change the information the mind processes by changing *what* we attend to. A more radical approach to developing new worlds of experience is to change *how* we attend. This was the thrust of Lord Williams' discussion of Simone Weil's *attente.* Equally, a change in *how* we pay attention figures centrally in Jon Kabat-Zinn's widely quoted definition of mindfulness as "the awareness that emerges through paying attention in a particular way: on purpose, in the present moment, and non-judgmentally."

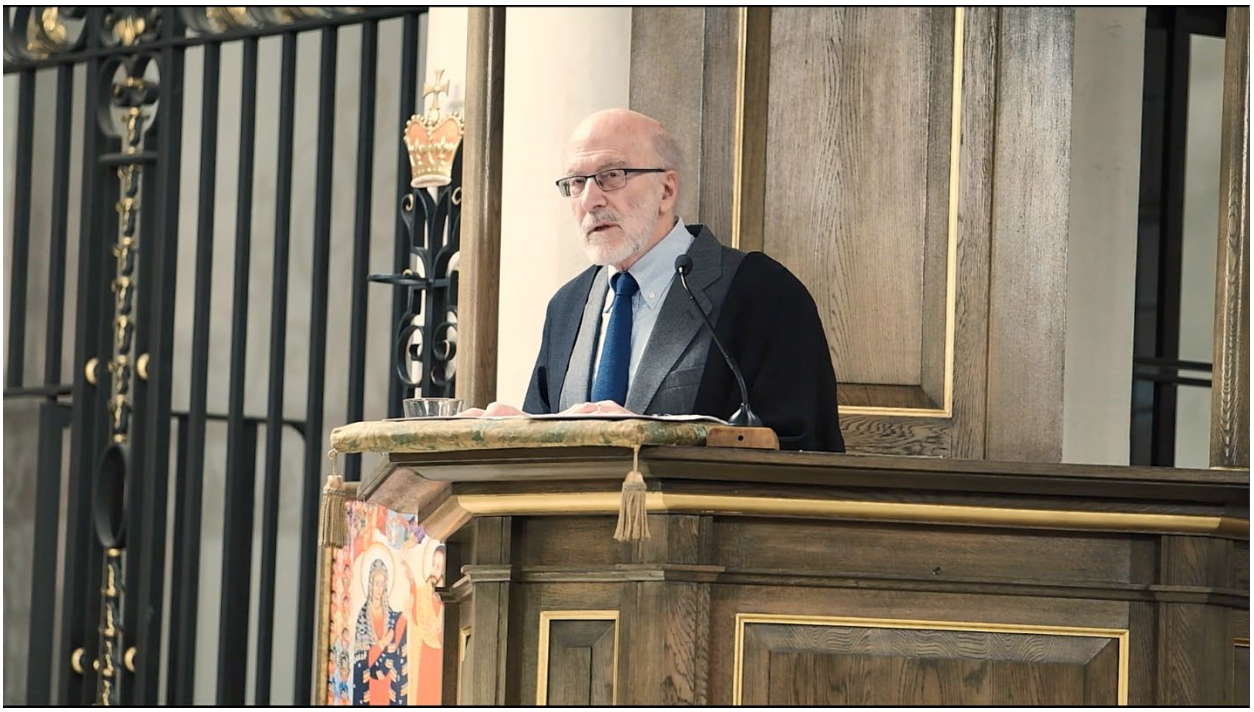
- A study by Norman Farb and his colleagues is highly relevant here. These researchers scanned volunteers' brains while they attended to self with either a narrative focus or an experiential focus. In the narrative focus condition, participants *thought about* the self, whereas in the experiential focus condition they attended directly to the *experience* of self. These two different modes of self-focus were associated with quite distinct patterns of underlying brain activity. Further, and very importantly, participants who had received 8 weeks of mindfulness training showed a lasting shift in underlying brain activity in the direction of greater experiential focus. Farb's results suggest two key conclusions. First, changing *how* we attend to self can shift us from one mode of self-experience to another, each mode having its own distinct brain signature. Second, by learning how to pay attention mindfully, we can effect long-term changes in the way we experience self, measurable at the brain level.
- Generalizing from these findings, we might say that, by learning *how* to attend differently, we can learn to shift the underlying configuration – or shape - of our minds at will. That sounds impressive - but why would we want to? Why would we want to shift from the shape of mind associated with narrative self-focus to a shape associated with experiential self-focus?
- Studies of mind wandering - the streams of thinking that fill our minds when they are not otherwise engaged – suggest an answer. Investigations that have probed the content of these thought streams reveal the unsurprising finding that they are predominantly focused on thoughts about the self. In the words of Dan Goleman and Richie Davidson (2017): "our minds wander mostly to something about ourselves- *my thoughts, my emotions, my relationships, who liked my new post on my Facebook page* – all the minutiae of our life story. .. Those reveries knit together our sense of 'self' from the fragmentary memories, hopes, dreams, plans and so on that center on I, me and mine" (end of quote). In other words, mind wandering is dominated by narrative self-focus – we dwell, and are often lost, in thinking centred on our self. And a well-known study of mind wandering suggests this is a problem.

- In 2010, Harvard psychologists Matthew Killingsworth and Daniel Gilbert published a paper entitled *A Wandering Mind is an Unhappy Mind*. Participants had been contacted at random intervals during their everyday lives and asked what was on their minds at that moment and how they were feeling. Their minds were not on what they were doing – their minds had wandered to something else – a striking 47% of the time. And at these times, participants rated themselves significantly less happy than when their minds were on what they were doing. Crucially, this was not simply because they were thinking unhappy thoughts – they were also less happy when their minds wandered to neutral topics. There is something about mind wandering itself - with its narrative self-focus – that makes us less happy.
- These findings suggest a huge potential opportunity to increase the sum total of human happiness – if we can reduce mind wandering, we will feel happier. How then are we to reduce mind wandering? An exhaustive review of relevant evidence highlighted an obvious candidate for the job (I quote): "Practices that encourage individuals to be mindful of the present are currently the most empirically validated technique for minimizing the disruptive effects of mind wandering."
- We noted earlier Farb's study suggesting mindfulness training increases *experiential* self-focus. This points to the possibility of increasing happiness by learning to pay attention in a different way, switching out of our default *narrative* self-focus to a more *experiential* form of self-focus.
- Evidence suggests narrative and experiential focus have a reciprocal relationship, each interfering with the other. Such a reciprocal relationship has been widely recognized in meditative and contemplative paths for many years. We see it in Lord Williams' description of *attente* as "that quality of awareness of what is other that necessarily 'suspends' the self-preoccupation of the ego so as to allow the independent reality of the other to be fully received." And anyone who has practiced mindfulness will be very aware of the barrage of inner mental chatter that hinders their best attempts to cultivate direct experiential awareness. On the other hand, the inner silence to which Martin Laird points in the title of his lovely book on Christian contemplation, *Into the Silent Land,* is one that transcends this chatter and opens us to direct experience at progressively deeper levels of being.

- In my book, *What Happens in Mindfulness: Inner Awakening and Embodied Cognition* (which Fraser Watts very kindly referenced on your invitations), I offer a way to understand the reciprocal relationship between narrative and experiential modes of mind and why narrative self-focus makes us less happy. I use a particular cognitive science framework: Interacting Cognitive Subsystems (ICS for short). This framework was originally developed by Phil Barnard, and I am deeply grateful to him for the many rewarding conversations that have substantially informed and shaped the ideas in that book. Here, as I come to the end of my time, I can only offer the briefest of thumbnail sketches of those ideas.
- ICS recognizes two distinct kinds of meaning and knowing: a conceptual, and an holistic-intuitive. These ways of knowing have different evolutionary histories and underlying structures, and served different evolutionary functions. They are linked to different core affects, different ways of paying attention, and create different worlds of experience.
- ICS suggests that an ongoing conversation between these two ways of knowing underpins what psychologists call the mind's *executive resources* – resources that support the conscious processing required in novel, complex, or difficult situations. As in many conversations, at any one time, one or the other partner will tend to dominate the course of the interaction. Executive resources are limited and our two ways of knowing compete for those limited resources. The way of knowing that wins that competition controls attention, the shape of the mind, and moulds our world of experience in each moment. This competition underpins the reciprocal relationship between narrative and experiential focus we have noted. When conceptual knowing is in control, our moment-to-moment experience is of *thinking.* By contrast, when holistic-intuitive knowing is in control our moment-to-moment experience is of a spacious receptive engaged awareness.
- There is good evidence that conceptual knowing underpins mind wandering. The pervasiveness of mind wandering reflects the fact that, in our present culture, our default mode of mind is one where a conceptually dominated quest to find happiness by achieving self-related goals wins the competition for the mind's executive resources. We can shift the outcome of that competition, and achieve greater wholeness and happiness, by deliberately

cultivating modes of mind with holistic-intuitive knowing in control: receptive awareness, mindfulness, contemplation.

- Some years ago Lord Williams suggested (I quote); “contemplation is the only ultimate answer to the unreal and insane world that our financial systems and our advertising culture and our chaotic and unexamined emotions encourage us to inhabit.“ In his Boyle lecture he eloquently reminded us of the crucial role of attention in contemplation. Concluding, he expressed the hope that what he very modestly called his very preliminary thoughts would serve to broker further the conversation between scientific discourse and the world of religious reflection and discipline. I share that hope and deeply appreciate Lord Williams’ contribution tonight to that ongoing, very live conversation. Thank you.



Discussion

Since the 2021 Boyle Lecture's online delivery due to COVID-19, the Lectures and Discussions have proved immensely popular on our YouTube channel. Continuing with what Tom McLeish began, this year's Digital Boyle Lecture continues to include a live Discussion with a panel consisting of Prof Fraser Watts, Dr Harris Wiseman, Revd Dr Joanna Collicutt, Lord Williams (Rowan Williams), and Revd Prof Michael Reiss, with audience questions welcome.

The Discussion will begin immediately after the YouTube Premiere—around 19:00GMT. Please use the following Zoom invitation at the Digital Lecture's conclusion to join the Discussion:

Topic: ISSR 2023 Digital Boyle Lecture Live Discussion

Time: 23 Mar, 2023 03:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

https://us02web.zoom.us/j/85229569661?pwd=Vk5KK240Y3p6T3VWOG9LWURheTdnQT09

Meeting ID: 852 2956 9661

Passcode: 417123

2023 Digital Boyle Lecture and Links

The 2023 ISSR Digital Boyle Lecture on Science and Religion will be hosted on YouTube Premiere on 23 March, 2023 at 18:00GMT. Please use the link below to attend or view the Lecture afterwards.

All links for the 2023, 2022, and 2021 Boyle Lecture's on Science and Religion, as well as the Discussions, can be/will be found on ISSR's YouTube and Apple Podcast channels.

YouTube Channel: https://www.youtube.com/@ISSR

Podcast Channel: https://feeds.buzzsprout.com/1920567.rss

2023 Digital Boyle Lecture – YouTube: https://youtu.be/5u9WGaWTgU8

The 2024 Boyle Lecture

The Boyle Lecture Advisory Board is pleased to announce that next year's Boyle Lecture, held at St Mary-le-Bow, and at a later date online, will be on

12th February 2024 at 18:00pm GMT

The Lecturer

Professor David Fergusson

Regius Professor of Divinity, University of Cambridge

with the Respondent

Professor Fiona Ellis

Professor of Philosophy and Religion, University of Roehampton, London

Please note, at this early time these details are subject to change. Lecture title will be announced soon. Please visit https://www.issr.org.uk/the-boyle-lectures/ for updates.

Previous ISSR Boyle Lectures

2004 John F. Haught

Darwin, Design and the Promise of Nature

2005 Simon Conway Morris

Darwin's Compass: How Evolution Discovers the Song of Creation

2006 Philip Clayton

From Complexity to Anthropology to Theology

2007 John D Barrow

Cosmology of Ultimate Concern

2008 Malcolm Jeeves

Psychologising and Neurologising about Religion: Facts, Fallacies and the Future

2009 Keith Ward

Misusing Darwin: The Materialist Conspiracy in Evolutionary Biology

2010 John Hedley Brooke

The Legacy of Robert Boyle – Then and Now

2011 Jürgen Moltmann

Is the world unfinished? On interactions between science and theology in the concepts of nature, time and the future

2012 Celia Deane-Drummond

Christ and Evolution: A Drama of Wisdom?

2013 John Polkinghorne

Science and Religion in Dialogue

2014 Alister McGrath

New Atheism - New Apologetics: The Use of Science in Recent Christian Apologetic Writings

2015 Russell Re Manning

Natural Theology Revisited (Again)

2016 Sarah Coakley

Natural Theology in a Changed Key? Evolution, Cooperation and the God Question

2017 Robert J. Russell

Theological Influences in Scientific Research Programmes: Natural Theology 'in Reverse'

2018 Mark Harris

Apocalypses Now: Modern Science and Biblical Miracles

2019 Michael Reiss

Science, Religion and Ethics

2020 Christopher Cook

Mental Health and the Gospel

2021 Tom McLeish

The Rediscovery of Contemplation Through Science

2022 Christoopher Southgate

God and a World of Natural Evil: Theology and Science in Hard Conversation

ISSR is thankful to all who contributed to and participated in ISSR's 2023 Boyle Lecture on Science and Religion. We are especially grateful to the thousands who have watched these Lectures and Discussions online.

We look forward to seeing you all next year.

All best and stay well,

Anthony K Nairn

www.anthonynairn.com

ISSR Executive Assistant

www.issr.org.uk