

CHALLENGES TO THEOLOGY

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The scientifically attested assumption that the human mind has a physical substrate carries many consequences for the theological understanding of human beings and the fundamentals of religious experience. Even if the research program looking for a reduction of all mental functions to neurological processes is still far from completed, the steps already taken point to a need to reconsider several traditional views in Christian anthropology.

A brief list of what needs to be reconsidered includes at least the following issues:

- The sustainability of the traditional dualism held by Christian thought that assumes the existence of a spiritual dimension – the soul – in every human person.
- The relationship between the immortal soul and the mind.
- The theological validity of emergence theories as the best explanation for the origin and development of mind and consciousness.
- The plausibility of a complete reduction of consciousness to sheer neurological processes and their functions and the theological relevance of the current discussion in this field.
- The tenability of traditional theological and humanistic principles such as free will, love, will, reason, conscience, etc.
- Concerns at the moral and spiritual level, since a materialistic reduction of the mind could bring a deep reshaping of most of our current moral format.
- The heuristic value of methodological reductionism when trying to come to terms with more complex levels of reality, such as human subjectivity, behaviour, beliefs, and cultural phenomena.

These issues need to be better understood and their consequences need to be thought through for Christian Anthropology in order to promote a better dialogue and understanding between science and theology; or at least to clarify what is at stake when we deal with the developments in the study of «the physical mind». The following analysis offers a first attempt in this necessary task. In this short presentation only some of the points, perhaps the most pressing, will receive attention. The main issues at stake are clearly the ones related to dualism and the consequences of its suggested overcoming.

FACING DUALISM IN SCIENTIFIC AND THEOLOGICAL TERMS

When the mind is taken as an essentially physical phenomenon, the first victim of such a move is traditional dualism, or the assumption that human

beings are composed of two different dimensions: material and spiritual, or body and soul. An academic journal, several years ago, devoted its special issue to recent developments in neurosciences using the title: «The Self: From Soul to Brain», to characterise the deep transformation undergone in our understanding of human mind or psyche¹.

In many cases the traditional Christian dualism has been perceived as a stumbling block hindering every attempt for a constructive dialogue between science and theology. To counter this charge, several theological voices have assumed an explicit anthropological monism as the most realistic choice when dealing with the scientific view of humans². These voices have found easy support even in Biblical studies and philosophical allies. Nevertheless it is right to ask whether such a move is the most convenient when the many variables weighing in this feature are taken into account.

In order to clarify the state of the question and to promote a deeper and fruitful dialogue we should take into account some data, before drawing too hasty conclusions. In the first place, the program leading to an entire reduction of all mental processes to neurological functions has not yet delivered all that was promised. Just as an example to begin with, many voices in the last decade denounce that «the mind doesn't work that way»³, or that computational models based on our accurate knowledge of artificial intelligence do not match the real workings of the human mind. In other words, we still lack a workable model of the human mind which can approximately reproduce most of its performances, and follow the complexity of its multiple links and tasks. Those who hold the opposite position have, at the moment, the burden of proof.

In my opinion, the reductivist program in this case is just a heuristic tool whose aim is purely to find how much of the functioning of the human mind can be explained resorting to physical/chemical hardware in the brain. This can be achieved at the micro level studying neuronal networks, or at a larger level of brain areas involved in particular mental activities and observable through advanced techniques of neuroimaging. I am not sure about the true ambitions of such a program, and it is legitimate to think that – in this, as in many other research fields – there is a minimalist and a maximalist expression, the latter nourishing greater aspirations to a «complete or unified theory of mind». In any case, such an attempt needs to be taken with caution until more convincing outcomes are provided and a clearer picture emerges.

¹ *Annals of the New York Academy of Sciences*, vol. 1001, October 2003.

² NANCY MURPHY and H. NEWTON MALONY, *Whatever Happened to the Soul?: Scientific and Theological Portraits of Human Nature*, Minneapolis: Fortress Press, 1998; NANCEY MURPHY, *Bodies and Souls, or Spirited Bodies?*, Cambridge U.K., New York: Cambridge University Press, 2006.

³ JERRY FODOR, *The Mind doesn't Work that Way: The Scope and Limits of Computational Psychology*, Cambridge, MA: Harvard University Press, 2000. More recently, in a review of SUSAN CAREY, *The Origin of Concepts*, Fodor claims several times that «we don't really know much about how the mind works», «Woof, Woof», *Times Literary Supplement*, October 8, 2010, pp. 3-4.

Second, and in close relationship with the first point of contention, the issue of consciousness still resists the neurological «acid» trying to solve any illusion of a transcendental realm in humans. That «faculty» is perceived as frankly hard to be treated in a kind of mechanical means. Mysterianism is still very much alive in the trade of consciousness studies and philosophy of mind⁴. This is not the time nor the place to deal with the current discussion and the alternatives to the strong program, trying to reduce consciousness to its hypothetic neural correlates, better known as «physicalism». Indeed the discussion about the so called «hard problem» appears as more philosophical than scientific or theological. This state of affairs has an immediate explanation: the proper nature of consciousness makes it more akin to «reflection» than to empirical observation and testing; its nature renders it a «sui generis» experience.

Mysterianism – it could be adduced – is of no great consolation to theology, since it leads to strong agnosticism, not just to faith. It is disputable whether the agnostic position is easier to deal than the strong physicalist program, which appears to have decided to eliminate any trace of a soul, or to show that every appearance of consciousness is nothing but an epiphenomenon, a delayed by-product of processes happening at the biological, or rather physical, level. In any case, this is a different question⁵.

The connected issue concerns how much an eliminationist program would succeed at debunking every mental appearance or eventually to empty them of any meaning for what really counts: survival and reproductive advantage. Several studies – not least Plantinga⁶ – have showed the self-defeating character of such a program, which would render its own statements empty or meaningless. Actually, the strong forms of «naturalism» lead to a devaluation of the mental operations which could justify its assumption, or at least its pretension of truth.

A danger in the proposed path – exploiting the limits in the current state of research – is that any call to keep dualism and the respective traditional expression in the soul, could lead to a so called «God of the gaps» strategy, a flawed way to vindicate the validity of Christian assumptions. For many, it would be a meagre consolation to assume that so long as the mentioned problems are not yet fixed, then the inherited beliefs keep their entire value.

The last criticism poses a long-term question: whether we can rely on the expectations of unlimited scientific growth and knowledge, or whether we would rather adopt a more sceptical position for the benefit of everybody. Indeed some

⁴ The term 'mysterianism' reflects a view stating that the hard problem of consciousness, or how it can be related to the neural substrat, will never be solved; it has been coined by: OWEN FLANAGAN, *Consciousness Reconsidered*, Cambridge, MA: MIT Press, 1993; and COLIN MCGINN, *The Problem of Consciousness: Essays Towards a Resolution*, Malden, MA, Oxford, UK: Blackwell, 1991.

⁵ For a discusión, see: OWEN FLANAGAN and GÜVEN GÜZELDERE, «Consciousness: A Philosophical Tour», in MASAO ITŌ, YASUSHI MIYASHITA and EDMUND T. ROLLS (Eds.), *Cognition, Computation and Consciousness*, Oxford and New York: Oxford University Press, 1997, pp. 3-16.

⁶ ALVIN PLANTINGA, *Warrant and Proper Function*, Oxford and New York: Oxford University Press, 1993.

forms of empiricism surprisingly call for a more sceptical stance, trimming down some excesses of scientism⁷. The question assumes a pragmatic stand: does it bring more advantages to trust on the expected progress of science to solve every actual problem? Or, would it be rather more prudential and wise to avoid an excess of reliance on such expectations and to rely on alternative ways to cope with present challenges?

The dualistic stance – comprising its theological expression – aims at stressing the special value and meaning of human beings, their irreducible character, with all the consequences to be drawn from this stance. Its rationale is that the intuitive perception of the mind as conforming to a dimension of reality – call it subjective or reflexive – which cannot, up to now, be reduced to its physical substrates, even if acknowledging at the same time that the mind strongly depends on the processes at the neurological and other anatomical levels.

A few months ago, I met in an Oxford bus professor Richard Swinburne, a celebrated philosopher of religion, very committed in the defence of the soul. Talking about his philosophical research, he confessed to being rather satisfied about how things were evolving. Indeed twenty years ago his dualistic position represented only one percent of the philosophical opinions; however, now he was convinced that his party has grown, reaching a bare two percent of the philosophical field. There is some ground for hope in these figures!

There are some theological alternatives in a spectrum between the most traditional dualistic position and the decidedly monistic ideas of several theologians⁸. The so called «non-reductivist physicalism», a near-oxymoron coined by Nancy Murphy⁹, appears to me, after years spent following the relevant published essays, a too easy an exit, conceding too much to the scientific dogma. I would prefer rather to wait and see what happens instead of assuming that anthropological monism is the only valid position, except that we assume the limited heuristics in which science moves: it can explain what it can explain with its own methods; it cannot see what it cannot see, but it doesn't mean that there is nothing outside or beyond the scientific gaze; or that everybody in every

⁷ BAS C. VAN FRAASEN, *Scientific Representations: Paradoxes of Perspective*, Oxford and New York: Oxford University Press, 2008.

⁸ It is interesting that the question of the soul has divided Christian philosophers from theologians: for the existence of the soul: PETER T. GEACH, *Truth, Love and Immortality*, London: Routledge - Kegan, 1969; RICHARD SWINBURNE, *The Evolution of the soul*, Oxford: Oxford University Press, 1986; CHARLES TALIAFERRO, *Consciousness and the Mind of God*, Cambridge: Cambridge University Press, 1994; ROBERT SPAEMANN, *Personen: Versuche über den Unterschied zwischen «etwas» und «jemand»*, Stuttgart: Klett-Cotta, 1996; DAVID BRAINE, *The Human Person: Animal & Spirit*, Notre Dame, IN: University of Notre Dame Press, 1992; while a more skeptical position is held by theologians like: WARREN S. BROWN, NANCEY MURPHY and H. NEWTON MALONY, *Whatever Happened to the Soul: Scientific and Theological Portraits of Human Nature*, Minneapolis: Fortress, 1998; ANDREA VACCARO, *Perché rinunciare all'anima: la questione dell'anima nella filosofia della mente e nella teologia*, Bologna: EDB, 2001; an exception is: KEITH WARD, *In Defence of the Soul*, Oxford: Oneworld, 1998.

⁹ NANCEY MURPHY, «Is “Nonreductive Physicalism” an Oxymoron?», <http://www.metanexus.net/magazine/tabid/68/id/10865/Default.aspx> open 27.01.2011.

social situation should always adopt this characteristic way of looking at the world. In other words, it is pacific to assume that monism is the only 'game in town' when it comes to the scientific representation of the real world, but not in other horizons of human experience and praxis, where different codes regulate communication. This is the reason why we – still – have different disciplines to deal with different social and human phenomena, and not just physics and biology.

The last stand could be misleading and be assumed as a new expression for incommensurability positions, or talking about games, a wage for the classical «linguistic games» theory of Wittgenstein, or of the more recent «non-overlapping magisteria» of Jay-Gould¹⁰. To be sure, Christian anthropology would fail its own aims ignoring the ongoing research in the fields of neurology and cognitive studies. The mission of this theological discipline is to offer an accurate representation of the human being in which the experience of God may become apparent and positive. Any attempt at idealizing its subject would bring havoc to its own project, which needs to be rooted in the real human characteristics, not the imagined ones of a perfect revelation-sensitive being. Indeed, very often this discipline has sinned rather for excess of realism, emphasizing the crudest expressions of our shared humanity, and the limits inherent to the human condition. It is in their own theological interest to pay attention to that line of research when the issue of the soul, and the consequent dualism, is assumed as something central. In any case, this attention does not imply that theology has to bow to the scientific method and code, as – by the same token – the attention ethics needs to pay to the scientific study of human behaviour does not mean to absorb ethics into the scientific logic. The «ought» style of the ethical discourse cannot overlap to the «is» descriptive style of sciences; almost everybody in philosophy knows the flaws of the «naturalistic fallacy» when applied to moral decisions. Nevertheless ethical development requires – if it wants to be of any help – a close examination of the outcomes from the scientific study of human nature and behaviour.

In a similar vein, theology – even theology of the soul – not strictly depending on scientific results, needs to account for the latest knowledge coming from the scientific study of humans and their brains. In my opinion, there is still enough room for interaction between science and theology, between incommensurability and assimilation, and many examples can be provided of this fruitful exchange.

For the time being I guess that the best solution is to accept a double strategy on the study of the human mind: one promoted by scientific description, and essentially monist; and one promoted by disciplines which account for the role played by the conscious mind. In any case, each side needs to be sensitive to the developments of the other side if it wants to avoid missing the «big picture».

¹⁰ STEPHEN JAY-GOULD, *Rocks of Ages: Science and Religion in the Fullness of Life*, New York: Ballantine Books, 1999.

IMMORTALITY

The other long-standing theological consequence of the traditional doctrine of the soul would be immortality. Per definition, or rather as a result of a philosophical tradition that goes back to the ancient Greeks, if there is in humans a spiritual dimension, this would be resistant to death or survive it. Again, not everybody in the theological field would be happy with this state of affairs. To start with, the protestant eschatological version has dropped the doctrine of the «immortality of the soul» pointing rather to the more biblical genuine idea of «resurrection of the flesh». In such a pessimistic view, there would be nothing in humans substantially immortal, or able to avoid physical corruption or biological decay. This pessimistic tenet is compensated by a more radical perception of God's grace, able to rebuild from scratch the human person at a different level of reality.

Eschatological reconstruction runs into unavoidable paradoxes and insurmountable challenges. Indeed one of the classical functions of stating the existence of the soul and its survival beyond death was to provide a continuity to the self between this worldly form of existence and the one believers expect to arise after death. However, the tension between continuity and discontinuity is too strong to be solved by just postulating a spiritual principle beyond natural decomposition of the body. In my view, and after teaching for more than fifteen years the treaty of eschatology, the Church has tried to keep some balance in its eschatological perspective. This balance could be characterized by resorting to the rule of «minimal counter-intuitiveness» that should distinguish every successful religious belief¹¹.

The principle of the soul appears then as bearing a meaning just inside that system of beliefs matured along the centuries. The idea of unlimited survival of the soul dovetails the needs of an eschatological system of expectations clearly fitted to deliver enduring hope and to motivate responsibility and moral commitment, in a way that does not violate the least possible intuitive perceptions about our usual state of affairs – death and apparent corruption of the body – and the expectations concerning an aimed new life, intrinsic to religious promises. It could be legitimate then to think that it is not the perception of the soul that supports an eschatological hope, but rather, the other way around: the eschatological aspirations that nourish the spiritual component and the consequent dualistic anthropology. By this same token: no soul, no dualism and no eternal life, or no hope after death. Obviously this system works as long as a third essential element comes into play: a transcendent and salvific God. Consequently, God, soul and resurrection constitute the backbone of Christianity as a religious system; all three components work together and fail together.

¹¹ PASCAL BOYER, *Religion Explained: The Evolutionary Origins of Religious Thought*, New York: Basic Books, 2001; JUSTIN BARRETT, *Why Would Anyone Believe in God?*, Walnut Creek, CA: AltaMira, 2004.

We tread here on slippery ground. Indeed such a line of thinking could be blamed as being too functionalist, and not providing valid arguments against those who promote the cause of anthropological reduction or physicalism. It is a risky business to put things in this way, because it seems to debunk the hidden agenda of the Christian anthropological construction: the soul works as a building-block in the complex construction of religious after-life expectations, or religious faith *tout court*. I am quite convinced that – in the Christian belief system – soul, God and the promise of eternal life are in the same pack and work together. This does not mean that the last justifies the first or the other way around. Perhaps the three grew together in the religious mind during the Axial Age, and we became more aware of their intimate link. Nevertheless it does not undermine the complex meaning of the dualistic stance, which applies to all three elements, and its far reaching consequences; it just reveals the complex constitution of Christian belief and what is at stake around it, or when it fails.

HUMANISTIC THREATS

Similar concerns to those already exposed arise regarding issues of freedom, love and reason when the current neurological program is taken seriously. The question is how much we can keep from the Christian and humanistic views on humans when the mind can be reduced to its neurological substrate.

Fears have been repeatedly expressed in recent years about the «end of man» and the destructive consequences of the application of a more biological and cognitive program¹². The curious point is that such concerns arise almost exclusively in the field of secular humanism: engaged philosophers who perceive clear dangers on the horizon for all the human species when the current scientific program is pursued. I have already analyzed the thorny issue concerning the «theological delay» at coping with that challenge¹³. A possible answer resorts to

¹² Just to quote some among the published main titles: KENAN MALIK, *Man, Beast and Zombie: What Science Can and Cannot Tell Us about Human Nature*, New Brunswick: Rutgers, 2002; JOHN DUPRÉ, *Human Nature and the Limits of Science*, Oxford: Clarendon, 2001; FRANCIS FUKUYAMA, *Our Posthuman Future: Consequences of Biotechnology Revolution*, New York: Picador, 2003; from a feminist framework: N. KATHERINE HAYLES, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, Chicago U.P., 1999; JEAN-CLAUDE GUILLEBAUD, *Le principe d'humanité*, Paris: Seuil, 2001; MICHAEL STENMARK, *Scientism: Science, Ethics and Religion*, Aldershot: Ashgate, 2001; CHRISTIAN SMITH, *Moral, Believing Animals: Human Personhood and Culture*, Oxford - New York: Oxford Univ Pr., 2003; JÜRGEN HABERMAS, *The Future of Human Nature*, Oxford: Polity, 2003; BILL MCKIBBEN, *Enough: Genetic Engineering and the End of Human Nature*, London: Bloomsbury, 2003; N. BOLZ and A. MÜNDEL (eds.), *Was ist der Mensch? Zwischen Affe und Roboter*, München: W. Finke Vg., 2003; RAYMOND TALLIS, *I am: A Philosophical Inquiry into First-Person Being*, Edinburgh: Edinburgh Univ. Pr., 2005.

¹³ Symposium on «Science, Humanism, and Christian Theology: Dialogue with Lluís Oviedo»; main article: «Is Christian Theology Well Suited to Enter the Discussion between Science and Humanism?» (pp. 825-842), followed of the responses: VÍTOR WESTHELLE, «Are Science and Humanism Suited to Enter the Ancient Quest of Christian Theology? A Response

a double theological standard. On one hand, current theology has often dropped the apologetic agenda and has chosen to become a rather self-referential system not concerned about external inputs, but just with the development of its own tradition and canon. In this case, theology becomes clearly immune to the results of science. On the other hand, a branch of theological studies has been engaged for some decades in an in-depth dialogue with science. Such an engagement could become jeopardized when theology shows too much sensitivity before uneasy developments in neuroscience, in biological anthropology or evolutionary psychology. As a result, the prevailing position has been of respect or avoiding clashes. It is easy to understand why theological research appears as uninvolved in this discussion on humanistic values: because of too much isolation or too much involvement.

I would like to share a personal experience regarding this state of affairs. Observing some years ago this deficit, I decided to write a short essay, to deplore the disappointing state of a theology unable to enter the current discussion between scientists and secular humanists. I submitted the paper to an emerging journal in the field of Theology and Science. After waiting a long time the Editor told me that such a paper didn't fit the editorial line of the journal that was aimed rather at building bridges between science and theology.

The current debate involves several fronts and does not have a clearly defined line of confrontation. From the theological perspective, one could think that once the assumption of a spiritual component in human beings is dropped, then do not expect that the all important long held positive dimensions can be rescued and will survive, I mean the so called «humanistic values». The theologian could feel tempted to become a prophet of disgrace: if you take away the soul from human beings, do not complain if everything else gradually collapses: freedom, responsibility, rational choice, love, beauty and human uniqueness. The soul could be identified as a harbinger for all that we deem as distinctively human, and, as a result, for those who do not share the Christian dualistic ground, there would be little more left to share. The alternative position, by secular humanists, presumes that there are human traits worthy to be postulated and defended, besides the dualistic frame, and that their dismissal would bring bad consequences for our society and culture. For these thinkers that series of values do not require a transcendent foundation or support¹⁴. As Charles Taylor has recently shown, most of the humanistic values, especially those concerning self-expression and the right to emotional expansion have been emphasized rather in contrast with the existing Christian religious tradition¹⁵. Now they need to be appreciated and

to Lluís Oviedo» (pp. 843-852); GREGORY R. PETERSON, «Theology and the Science Wars: Who Owns Human Nature?» (pp. 853-862); and reply by LLUÍS OVIEDO, «Struggling to Keep Faithful: Response to Gregory R. Peterson and Vitor Westhelle» (pp. 863-868), in *Zygon* 41, 2006-4, pp. 825-868.

¹⁴ A recent example is: JOHN KEKES, *The Human Condition*, Oxford and New York, Oxford University Press, 2010.

¹⁵ CHARLES TAYLOR, *A Secular Age*, Cambridge, MA: Harvard University Press, 2007.

vindicated against a new kind of opposition: the scientifically laden anthropology with its consequent determinism, reduction and expected manipulation of human nature.

The issues at stake are important and what looms in all this is a threatening awareness of nihilism behind the reductive maneuvers moved by some biological and neurological insights. That danger has been explicitly formulated: when the evolutionary principles of survival and reproductive success are taken for granted, and the neurological determinism resulting from Libet's experiment is broadly accepted, then little is left for human values and a purpose beyond our biological level. Nihilism is perhaps not the most appropriate word, but rather «biologism»: there is nothing of value except to follow our biological instincts¹⁶.

However here and there arise reasons for hope. Recently I was acquainted through an excellent review of the titles of R. Holton, *Willing, Wanting, Waiting*; and A. R. Mele, *Effective Intentions*¹⁷. What is interesting in both cases is that scholars with a deep knowledge of neuroscience and cognitive studies, nevertheless argue for free will and the role of conscious decisions¹⁸. Once again, the development of science does not mean the withdrawal of a more humanistic view, but its advance through better means.

Once again the problems refer to a higher and practical level. If the reductive project is followed until its last consequences, then a very different panorama concerning human nature and our representation of the world emerges. I am not sure whether in such a hypothetical situation human beings would adapt to this new mind-frame, and nevertheless keep acceptable living standards: perhaps this is only a question of new adaptation and of assuming the costs typical of a troubled period of adjustment: adaptive transition appears as inevitably traumatic. I am not sure whether the most vocal advocates of that future understanding of human nature would assume the risks involved in their postulation.

The theological assessment and discussion of the issues related to the physical substrate of the human mind moves from the empirical and experimental scenario to the pragmatic and consequentialist. Theology clearly plays away, in apparent disadvantage, when the ground is dominated by scientific method. It plays home, and with clear advantage, when the game moves from the sheer observational or experimental field to the speculative, practical and metaphysical. It is right to become more aware of these biases in order to better manage the dialogue between both sides: each one feels more comfortable playing in its own ground; but it would be wrong to ignore that there are other possible grounds in which it is worthy to play as well. Dialogue fades away when each party pretends to

¹⁶ TAMLER SOMMERS and ALEX ROSENBERG, «Darwin's Nihilistic Idea: Evolution and the Meaninglessness of Life», *Biology and Philosophy* 18 (2003): 653-668.

¹⁷ TIM BAYNE, «Make your Mind Up», a review on RICHARD HOLTON, *Willing, Wanting, Waiting*, Oxford University Press; ALFRED R. MELE, *Effective Intentions: The Power of Conscious Will*, Oxford University Press, in *Times Literary Supplement*, October 29, 2010.

¹⁸ They are not alone; see the recent essay by ANTONIO DAMASIO, *Self Comes to Mind: Constructing the Conscious Brain*, New York: Pantheon Books, 2010, pp. 269-270.

play only in their own ground and follows its own rules. P laying away may be a salutary exercise for all the involved parties, especially when this means looking through other's eyes.

The program aimed at a reduction of the mind to its neural substrate could one day find a satisfactory completion. Such a move perhaps would not mean an entire elimination of the meaning associated to the conscious dimension of the mind, and the religious or philosophical tenet about the soul. What is in the interest of theology and its role at delivering transcendence communication, is to keep the transcendent self alive and to engage in a representation of the human being and its world that vindicates some central values. This role may be played perhaps in a counter-cultural vein, in the middle of a dominant culture where other values and interests take more salience. It is now in the interest of everybody – scientists and secular humanists alike – that religious faith continues to perform such a mission or function, and preserves some space of transcendence and institutes an open alternative to a too closed world delivered by a too reductive science. After all, and beyond the legitimate efforts to better know our nature, to perceive a soul beneath or beyond everybody's skin indicates that humans still have a meaning and a reason to live.

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