

Studi - Commenti

Analogies, Non-reductionism, and Illusions

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Abstract This commentary focuses on three aspects of Sandro Nannini's paper *Time and Consciousness in Cognitive Naturalism*: (1) the parallel between Einstein's theory of relativity and the new science of the mind/brain; (2) the Cartesian characterization of non-reductionist positions in the philosophy of mind; (3) the alleged illusory status of consciousness, free will and the Self. We suggest, first, that Nannini overstates the success of cognitive neuroscience; second, that non-reductionism is not necessarily a Cartesian position; and third, that the neurocognitive science data do not show or even suggest, that consciousness, free will and the Self are illusory phenomena.

KEYWORDS: Cognitive Neuroscience; Non-reductionism; Cartesianism; Self; Consciousness.

Riassunto *Analogie, non-riduzionismo e illusioni* - Questo commento si concentra su tre aspetti dell'articolo di Sandro Nannini *Time and Consciousness in Cognitive Naturalism*: (1) il parallelo tra la teoria della relatività di Einstein e la nuova scienza della mente/cervello; (2) la caratterizzazione cartesiana delle posizioni non-riduzionistiche in filosofia della mente; (3) il presunto status illusorio della coscienza, del libero arbitrio e del sé. Riteniamo, in primo luogo, che Nannini sopravvaluti i successi della neuroscienza cognitiva, in secondo luogo che l'anti-riduzionismo non sia necessariamente una posizione cartesiana e, in terzo luogo, che i dati della neuroscienza cognitiva non mostrino, e neppure suggeriscano, che coscienza, libero arbitrio e sé siano fenomeni illusori.

PAROLE CHIAVE: Neuroscienza cognitiva; Non-riduzionismo; Cartesianesimo; Sé; Coscienza.



PROFESSOR NANNINI'S PAPER IS a provocative and challenging criticism of non-reductionism in the philosophy of mind. But, of course, in philosophy there is usually plenty of room for discussion and disagreement and this case is no exception. In particular we would like to focus our critical comments on three aspects of Nannini's paper: (1) the parallel between Einstein's theory of relativity and the new science of the mind/brain; (2) the implicit characterization of non-reductionist positions in the

philosophy of mind; (3) the alleged illusory/fictitious status of consciousness, free will and the Self due to deceptive (and naturally evolved) activities of the brain.

Einstein's Theory of Relativity and the New Science of the Mind/Brain

Section two of Nannini's paper skilfully outlines the Einsteinian revolution in physics. No one nowadays is at all inclined to deny that re-

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lativity theory is our best theory of the macro-physical world and early objections based on purely armchair reflection rightly appear to us to be misguided and doomed to failure from the start. This kind of criticism had, at best, feeble epistemic value and was usually guided by an understandable, even though non-epistemically justified, psychological resistance.

One of Nannini's main points is the analogy he draws between the case of relativity and the case of cognitive neuroscience. Nannini suggests that, broadly speaking, relativity theory is related to Newtonian physics in the same way cognitive neuroscience is to "Cartesian" philosophy of mind. Contemporary cognitive neuroscience, Nannini says, has dismantled beyond any doubt – and indeed falsified¹ – such ancient theses as the existence of subjective consciousness, free will and the Self, and the majority, if not all, of the criticism against these amazing results is guided by a non-epistemically justified, even though (scientifically) understandable, psychological resistance. But is the parallel Nannini relies on really convincing? Consider first the following cases:

- (a) Freudian psychoanalysis – so many said – completely refutes traditional psychological doctrines, and poses the study of our minds on a secure, if not comfortable, ground. True, psychoanalysis raises strong critical reactions, but these are readily and scientifically explained as forms of epistemically unjustified psychological resistance.
- (b) Marxist science shows that our behaviour is systematically determined by our social conditions and that wrongdoers are not really morally responsible: the free will doctrine is a venerable, and untenable, relic of unscientific times. True, many oppose resistance to the idea that there is no individual moral responsibility, but these reactions are completely unjustified – and indeed scientifically explainable.

How would one react to (a) and (b)? We think that the most plausible reaction is

simply to doubt that Freudian psychoanalysis has ever established the study of the mind on secure grounds, and to deny that there is such a thing as Marxist science. (a) and (b) simply *assume* that Freudian psychoanalysis and Marxism are well established and correct theories and dismiss any possible criticism as mere psychological resistance to the truth.²

Now we think that contemporary cognitive neuroscience fares much better than Freudism and Marxism,³ and yet we suspect that Nannini is overstating its successes – which cannot be compared to those of relativity theory. It is simply too much to assume, as Nannini does, that cognitive and neurological sciences have falsified traditional and non-reductive doctrines concerning our minds.

As Nannini admits,⁴ cognitive neuroscience is not a fully developed science, at least if one considers relativity theory as setting the standard. Nonetheless, Nannini says, we have at our disposal some reliable guidelines on the true nature of our minds. But this, we think, is an overconfident statement, at least if it refers to Nannini's main targets, namely consciousness, free will, and the Self: in contemporary cognitive science there is simply no reasonably widely shared view on such phenomena. There are plenty of competing, contentious – and indeed partial – scientific theories of consciousness,⁵ there is no agreement at all on what neuroscience has revealed about free will,⁶ and current neuro-cognitive scientists can affirm or deny the very existence of the Self without being accused of anti-scientific practice.⁷

Given this state of the art, confidently assuming that the existence of such things as subjective consciousness, free will, and the Self have been refuted by cognitive neuroscience is more like wishful thinking than presupposing an obvious truth.

■ The implicit characterization of non-reductionist positions in the Philosophy of Mind

The main polemical target of Nannini's

paper is non-reductionism concerning the mind. Though he does not offer an “official” definition of this position, its features emerge quite clearly throughout the paper: non-reductionists, in Nannini’s rather explicit picture, are committed to a broadly Cartesian view of the mind. First and foremost, according to this perspective, the mind is the immaterial centre of our mental life, an immaterial “ghostly” substance, a soul.⁸ Moreover non-reductionists are “prisoners” of the traditional idea according to which we are identical to a Self, an entity able to drive teleologically and freely various activities of the brain.⁹

Presupposing this picture of non-reductionist positions, Nannini suggests that we have just two choices: either to embrace a full-fledged version of Cartesianism or to choose reductionism and science. But this, we think, is a false dilemma. It is simply not true that every non-reductionist position is committed to Cartesianism, and it is not true that every non-reductionism is incompatible with cognitive science and with science in general.¹⁰

To illustrate this thesis we briefly consider two prominent options in current metaphysics of mind: property dualism and so-called “Russellian panpsychism”.¹¹ Standard property dualism as presented for example in Chalmers¹² and Fumerton¹³ is the idea that there are two fundamental kinds of properties: physical and mental properties. Yet in this theory, there is no place for such a thing as an immaterial individual, or soul, which is the bearer of the non-physical mental features of reality. The only existing individuals are physical ones, and among them some have mental properties besides having physical ones.

One plausible way to specify this idea would be to say that living organisms are physical individuals and that these kinds of individuals (usually) are the bearers of both physical and mental features. Of course property dualists recognize the strong correlation between the mental and the physical, and they commonly say that this connection is a matter of brute and fundamental laws.

According to this view, in other words, there are basic laws of nature (or perhaps basic laws of metaphysics) that guarantee the emergence of non-physical properties given some appropriate physical “substrates”. So this non-reductive metaphysical framework does not posit immaterial Cartesian souls and it is neutral with respect to – and so absolutely compatible with – the negation of free will and the non-existence of an entity called “the Self”. There exists, therefore, a non-Cartesian form of anti-reductionism which is moreover, and at the very least, not (obviously) excluded by current science.

The same goes for panpsychism, a metaphysical thesis that is playing a significant role in recent debates about the mind. Panpsychists refuse to reduce in any way the conscious mind: consciousness is what it is and not something else, it is a primitive *datum* and a fundamental building block of reality. Yet, according to one common panpsychist strategy, there is no room for dualism in the world: physical things exhaust all there (concretely) is. How can this be so? Well, as Russell once noted

The physical world is only known as regards certain abstract features of its space-time structure – features which, because of their abstractness, do not suffice to show whether the physical world is, or is not, different in its intrinsic character from the world of mind.¹⁴

Panpsychists say precisely that the intrinsic nature of the physical world is mental: the physical world is all there is, they say, and the nature of the physical world is mental. Again, we have a non-Cartesian anti-reductionist view of the mind, and one that is able to accept at face value *everything* science says and will say in the future.

So let us state our point: Nannini outlines a too narrow and scientifically suspect conception of non-reductionist positions cleverly suggesting to the reader that the choice is to be made between non-reductionism on the

one hand and reductionism and science on the other. This is not so, we have argued.

That Nannini's conception of non-reductionism is a narrow, and indeed Cartesian one is confirmed by this passing remark of his own:

Non-reductionists think that no robot could in principle become conscious even if it were possible to equip its artificial brain with all the mechanisms of synchronization (or with any other property of brain dynamics).¹⁵

Now if, as Nannini seems to suggest, non-reductionism is equivalent to cartesianism, then what the previous quotation says is indeed exactly right. A Cartesian who believes in immaterial thinking souls cannot concede that a purely physical thing such as a robot, or even a human organism, is able to have a mental life: if there is thought, there has to be a soul. But non-Cartesian non-reductionists, such as property dualists or russellian panpsychists in no way deny the possibility of "artificial consciousness".

Property dualists may think that the physical substrata that correlate with mental properties need not be strictly biological, and so they can concede, and usually do, that there could be conscious robots. As for panpsychism things are even more straightforward: robots – as all other physical things – are constituted by intrinsically mental items, and it just sounds natural to think that an entity of this kind could have a conscious mental life.

■ The alleged illusory/fictitious status of consciousness, free will and the Self

In section 3 of his paper Nannini writes: «As a matter of fact [...] a Self is only a virtual (and in part fictive) entity implemented by distributed properties of brain dynamics»; and a few lines later, he says that a «servo-mechanism of your brain [...] in every moment creates in you the illusion of being a

conscious and free agent.¹⁶ So Nannini says that the Self, consciousness and free will are virtual, "partly fictive" or illusory phenomena and, according to him, current science gives significant evidence in favour of these radical theses.¹⁷ Why, however, do we find these ideas so unpalatable?

Science is able to account for this fact as well, Nannini suggests; we are inclined to believe in some less-than-real phenomena because of our evolutionary history, and this scientifically explains our epistemically unjustified beliefs concerning the full reality of the Self, consciousness and free will.

But are we really compelled to accept Nannini's picture? We do not think we are, and we offer some brief remarks to explain why, focusing in particular on two of the three items targeted, namely the Self and consciousness – as regards free will we wholeheartedly agree with Dennett,¹⁸ this very icon of all arch-reductionisms: neuro-cognitive science data do not show or even suggest, that there is no free will.¹⁹

Let us begin with the Self, and let us consider one of the two eliminativist theories of the Self Nannini explicitly refers to: Dennett's narrative account of the "I".²⁰ Neuro-cognitive sciences, Dennett claims, have finally dispelled an ancient myth, namely the idea of an Interior Boss, the Controller of the body and the privileged, Cartesian Viewer of all mental states which play their roles on the stage of our mental theatre.

This tenacious myth still has a strong persuasive force, but contemporary cognitive sciences, at last, allow us the resources to free ourselves from it. What they teach us is that the brain's processes are parallel and distributed ones and there is no place in the brain where it all comes together. What happens is that some processed bits of information sometimes gain a more or less stable "cerebral celebrity": temporary in-the-limelight goings-on which have no guarantee of keeping their privileged position in the flux of the mind/brain's activities. These temporary "celebrities" constitute a sort of linear order, a brain narrative

whose main character is what Dennett calls *The Virtual Captain*.

This character is represented by the narrative as a substantive *Cartesian Boss*, but really it is nothing: its illusory existence is just the product of the brain's *impersonal* processes. «If asked what a centre of gravity was made of [physicists] would say, "Nothing"».²¹ The Virtual Captain, the seeming Self, is – Dennett says – *a centre of narrative gravity*, and if one asked what a Self is, one should reply as physicists do in the case of physical centres of gravity: "Nothing at all".

But how virtual is Dennett's Virtual Captain? On the one hand it is said to be an absolute nothing, but on the other hand this illusory character is a useful and convenient device: the complex cognitive systems that we are *need* a virtual Self for their very survival, or at least for a satisfying life; so the brain's allegedly illusory product seems to *make a difference* in the world, and plausibly what is able to make a difference has to be an existing entity after all.²²

This ambiguity in Dennett's theory of the Self suggests that a *realist* reading of his model is an open possibility. And this possibility is perfectly compatible with all neurocognitive empirical data he takes for granted.

Let us concede that there is no central place in the brain where all information is gathered together, no unifying superior function able to coordinate and organize what is processed by many different cognitive modules. And let us grant, following Dennett, that the parallel and distributed activities of the brain produce a more or less stable linear narrative constituted by temporary in-the-limelight mental goings-on and featuring a central character, the captain of the crew. This is not to say that there is no Self, or that this captain is a pure nothing.

We think that the empirical data Dennett exploits in constructing his theory simply *underdetermine* what one should say about the ontological status of the Self. And things being so, one could hold that the brain produces a real "*narrative I*" which is not causally inert.

We think, to sum up, that the empirical data of cognitive science Dennett takes for granted can be exploited to construe a *realist* narrative theory of the Self according to which Selves are causally efficacious mental processes which are relatively stable and integrated. And as long as Dennett presupposes our best scientific theories of the mind/brain, it is not true that our best scientific theories force us to abandon the idea of an existing real Self.²³

So much for the case of the Self. As for the case of the alleged illusion of consciousness, we want to briefly suggest a familiar line of reasoning we find rather compelling. One has a case of illusion when appearance and reality come apart; so if consciousness is an illusion, one should say that it seems to us to be conscious but that that appearance is mistaken: there really is no conscious mental life. And yet, when it comes to consciousness, as many philosophers have claimed, the appearing *just is* the being. But if so, the idea that consciousness is an illusion hardly makes any sense. If consciousness's appearance is identical to its reality, and if it appears to us to have consciousness, then we are indeed conscious. And so consciousness is a real phenomenon and not an illusory one.

Notes

¹ See S. NANNINI, *Time and Consciousness in Cognitive Naturalism*, in: «Rivista Internazionale di Filosofia e Psicologia», vol. VI, n. 3, 2015, pp. 458-473, here p. 466.

² We are, of course, fully aware that (a) and (b) are rough statements. But here we are interested in argumentative strategies, and there is no need for more nuanced formulations.

³ Well, at least in our oversimplified versions.

⁴ See S. NANNINI, *Time and Consciousness in Cognitive Naturalism*, cit., p. 465.

⁵ To take just a few examples: B. BAARS, *In the Theater of Consciousness*, Oxford University Press, Oxford 1997; S. DEHAENE, L. NACCACHE, *Toward a Cognitive Neuroscience of Consciousness: Basic Evidence and a Workspace Framework*, in: «Cognition», vol. LXXIX, n. 1-2, 2001, pp. 1-37; D.C.

DENNETT, *Consciousness Explained*, Little, Brown and Co., Boston (MA) 1991; G. EDELMAN, G. TONONI, *A Universe of Consciousness*, Basic Books, New York 2001; A. NOË, *Out of Our Heads*, Hill and Wang, New York 2008.

⁶ See, for example, D. WEGNER, *The Illusion of Conscious Will*, MIT Press, Cambridge (MA) 2002; B. LIBET, *Mind Time*, Harvard University Press, Cambridge (MA) 2004, and D.C. DENNETT, *Are we Free?*, in: «Prospects», November 2014, available at URL: <http://www.prospectmagazine.co.uk/features/are-we-free> 2014.

⁷ For example: Thomas Metzinger (see T. METZINGER, *Being No One: the Self-Model Theory of Subjectivity*, MIT Press, Cambridge (MA) 2003) is a denier of the Self, Patricia S. Churchland (see P. S. CHURCHLAND, *Touching a Nerve: the Self as Brain*, W. W. Norton & Company, New York, 2013) is not.

⁸ See S. NANNINI, *Time and Consciousness in Cognitive Naturalism*, cit., pp. 466-467 and pp. 470-471.

⁹ *Ivi*, pp. 465-466.

¹⁰ Indeed, there may even be a case to be made for the compatibility of Cartesianism with current science, but we do not want to pursue this issue here.

¹¹ See, among many others, G. STRAWSON, *Realistic Monism: Why Physicalism Entails Panpsychism*, in: «Journal of Consciousness Studies», vol. XIII, n. 10-11, 2006, pp. 3-31, and T. ALTER, Y. NAGASAWA, *Consciousness in the Physical World*, Oxford University Press, Oxford/New York 2015.

¹² See D. CHALMERS, *The Conscious Mind*, Oxford

University Press, Oxford/New York 1996.

¹³ See R. FUMERTON, *Knowledge, Thought, and the Case for Dualism*, Cambridge University Press, Cambridge/New York 2013.

¹⁴ B. RUSSELL, *Human Knowledge. Its Scope and Its Limits*, Routledge, London 1948, p. 240.

¹⁵ S. NANNINI, *Time and Consciousness in Cognitive Naturalism*, cit., p. 467.

¹⁶ See *ivi*, p. 469.

¹⁷ See *ivi*, p. 470-471.

¹⁸ See D.C. DENNETT, *Are we Free?*, cit.

¹⁹ As regards alleged scientific proofs of the non-existence of free will Dennett writes: «The mistakes are so obvious that one sometimes wonders how serious scientists could make them» (see D.C. DENNETT, *Are we Free?*, cit.).

²⁰ S. NANNINI, *Time and Consciousness in Cognitive Naturalism*, cit., p. 468.

²¹ D.C. DENNETT, *Consciousness Explained*, cit., p. 95.

²² For further arguments, see M. DI FRANCESCO, M. MARRAFFA, *Consciousness, Unconscious, and the Ego Illusion*, in: «Dialogues in Philosophy, Mental and Neurosciences», vol. VI, n. 1, 2013, pp. 10-22; M. DI FRANCESCO, M. MARRAFFA, A. PATERNOSTER, *Real Selves? Subjectivity and the Subpersonal Mind*, in: «Phenomenology and Mind», vol. VII, 2014, pp. 118-133.

²³ For more on this topic, see A. TOMASETTA, *Sense and Subjectivity*, in: «Phenomenology and Mind», vol. IV, 2013, pp. 186-195; A. TOMASETTA, *Metafisica della persona umana*, Carocci, Rome 2015.