PSYCHE

# Finally Some One:

# Reflections on Thomas Metzinger's "Being No One"

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ABSTRACT: I praise Metzinger's book *On Being No One* by calling my essay "Finally Some One" meaning that I am pleased to see a first rate philosopher so carefully reading the neurobiological literature. Especially as it pertains to sleep and dreaming. Metzinger is comprehensive and comprehending. By studying the neurobiological substrates of normal dreaming, lucid dreaming and related altered states of consciousness (such as out of body experiences, hypnosis, and deja' vu), we may gain insight into the general rules governing brain activity in relation to subjective experience.

My quarrel with Metzinger concerns his refusal to call first person accounts data. I describe the rationale and strategy for placing heavy and confident emphasis on first person accounts and show how our own methodology reveals reliable and valid data. I further argue that such accounts must be accorded data states if we are to make any progress in solving the mind-brain problem.

"Finally some one" I say, "has taken the trouble to read the neurobiological literature and has attempted its integration with philosophical criticism." Other philosophers, particularly Patricia Churchland (the author of Neurophilosophy) and David Chalmers (he of the Hard Problem) have begun to put together philosophy, physiology and psychology, the three domains of William James. But *no one* has done this as thoroughly as Thomas Metzinger.

The result is deeply satisfying, Metzinger offers us a new and plausible conception of the self—and of consciousness. Whether or not one accepts the validity and utility of Metzinger's model of the self (the Phenomenal Self Model, PSM) or his model of intentionality (the Phenomenal Model of the Intentionality Relation, PMIR), this book is an intellectual masterpiece which every scientist who is interested in the mind and the brain should read. I must confess that I still don't know if I understand Metzinger's proposals about phenomenology. I do know that I am unhappy with his constraint satisfaction approach because I think that it makes the hard problem all but impossible whereas I believe that it will yield to the more modest approach that I will describe in this essay.

## 1. How I became interested in *Being No One*

In the spring of 2004 after I had reviewed a manuscript for the editors and was offered a choice of books as an honorarium, I was intrigued by the title and the length of this book on the M.I.T. Press list. As I was contemplating a long period of study in Sicily (something like the sabbaticals that our predecessor professors used to enjoy), I asked that "On Being No One" be sent to me along with "Neural Correlates of Consciousness", the book that Metzinger had organized and published in the millenial year 2000.

I put both books in my small blue backpack and set off for Sicily in the summer of 2004. Now, in the winter of 2005 I have brought them to Sicily again, despite the fact that in between trips I have become more lame and it is harder to carry the small but heavy back pack. It is well worth the inconvenience. This first person account is meant to extol itself for reasons that I will make clear later. It is also a way of paying a colleague a compliment and a way to help the reader appreciate the context of my glowing commentary.

## 2. How to read *Being No One*

How to read a book that is 634 pages long? My answer is to browse (as if this were a reference book) looking for a discussion of subjects that you know well enough to appreciate Metzinger's analysis and then venture into more unfamiliar territory. Another answer is to emphasize the readability of Thomas Metzinger's discussion of even the most obscure philosophical concepts. It is a pleasure to report that every page indeed every line of the book is well written and understandable.

## 3. The book itself

Having refreshingly introduced the questions he wants to answer (Part I) and the tools (Part II) he uses to answer them, Thomas Metzinger then lists eleven constraints upon the neural functions that could qualify as phenomenal representations (Part III). I found this section of the book to be annoyingly obscure and abstract. It blocks the reader's access to

the more interesting discussion of neurophenomological case studies in Part III. And it is in Part IV that the clinician and the experimentalist will feel most at home.

The same cycle recurs in the second half of the book. Opaque and abstract discussions of Tools (Part IV), Representational deep structure (Part VII) proceed a second pass at Neurophenomenological case studies (Part VII) before the conclusion (Part VIII). I found myself most at home in Part VII.

On balance it may seem gratuitous to fault such a tour de force. In this book Metzinger covers just about everything. He is remarkably eclectic and balanced in his treatment of the philosophical and cognitive neuroscience literature. He proposes his own models which are original and interesting. What doesn't he do?

Metzinger doesn't tell us that we need a more tactical approach to collecting first person data and a more strategic approach to correlating it with third person data. He doesn't take seriously enough the charge of Anti Revousuo (and David Chalmers for that matter) that the time is ripe for breaking down both the institutional and the methodological walls that divide the fields of philosophy, psychology and physiology and the tasks of consciousness science. I hope this essay will goad him into taking further step in this direction.

## 4. Why I like the book

The book is alive with the clarity and openness of Metzinger's mind. From my initial reading I was so sure that Metzinger was authentic and sincere that I called him up to say so. Thomas Metzinger may be "No One" in the sense that there is no self without a brain but he is surely some one in the sense of a fully embodied self, a brain with a transparent (my meaning) motivation and interest in the truth.

I have never read such a complete and penetrating analysis of my own scientific field: the cognitive neuroscience of sleep and dreaming. In this, as in other parts of the book that I understand well enough to comment, Metzinger cuts to the heart of the matter. I have always thought that the scientific study of sleep and dreaming was relevant to a science of consciousness. Metzinger endorses this view and brings to our field his own way of understanding the relationship of mind to body.

Metzinger fully understands the state dependence of conscious experience and appreciates how much we can learn from an examination of the alterations in phenomenal experience that accompany the now well understood changes in brain function during sleep. In particular, he appreciates that the robust differences between dreaming and waking consciousness (such as the visuomotor hallucinosis, the delusional belief that one is awake, the distinctive defects in cognition, the heightened emotionality, and the poor memory) have their neural correlates in the altered neural activation pattern of REM sleep. Thus it is all the more surprising to note that Thomas Metzinger does not consider first person reports of conscious experience to be data.

The importance of sleep and dreaming to understanding consciousness is a key point upon which Metzinger and I agree. So does Anti Revousuo who goes so far as to suggest in his chapter Neural Correlates of Consciousness that a vigorous and sophisticated scientific assault on consciousness might well focus on dreaming as a

virtual reality simulation that illustrates the brain's intrinsic capacity to create a self and a world that are off-line but richly detailed.

## 5. What I don't like about the book

Metzinger doesn't tell us he himself is a lucid dreamer. Is this because he doesn't trust first person data? On page 591 he states: "My politically incorrect conclusion is that first person data do not exist."

Metzinger bases this conclusion on a set of inferences regarding scientific method. He insists that "data are things that are extracted from the physical world by technical measuring devices like telescopes, electrodes, or functional MRI scanners." In addition, "first person access to one's own mental states" does not fulfil the intersubjectivity criterion of data since group mediation of independent verification does not exist.

With respect, I submit that Metzinger is wrong on both counts. And I suggest that he is not only politically incorrect but scientifically misguided. This major problem weakens his program unnecessarily. In fact it cuts the heart out of consciousness science because by definition it is subjective experience (or what Metzinger calls phenomenology) that seeks a physiological substrate. Instead of first person data Metzinger proposes that we apply his phenomenological constraints to neurobiological data. I don't buy it because his constraints are much too demanding to be satisfied in the foreseeable future. Meanwhile what are we to do?

As to Metzinger's first point, scientific observation is always subjective whether or not one uses an instrument to make a measurement. And is a tape recorder not an instrument? When we elicit reports of mental states, we are, it is true, not accessing the subjective experience directly. But when we read a thermometer we are not accessing temperature directly either. We are looking at the height of a column of mercury that we assume is proportional to the temperature. The same assumption applies to a report of a mental state: its content need only be proportional to the subjective experience itself to be scientifically valid and empirically useful.

As to his second point, there is abundant discussion among sleep and dream scientists about the validity and reliability of their measures of subjective experience. In response to a recognition that these measurements are problematic, important safeguards have been introduced. These include sampling large numbers of experiences from a wide range of subjects and states as well as instrumental checks on the "objective" or third person states of the subjects.

But the most important point is this; if we cannot agree upon what consciousness is (or is like) we cannot have a science of it. Surely we can all agree that consciousness is our subjective awareness of our surrounds, our bodies, and ourselves. And surely we can agree that consciousness is componential (however global) and that it is graded (however holistic).

If this were not the case, the title of Metzinger's book would have to be changed to something like Being Nothing. Come now, Thomas, surely you don't mean it. You signed my copy of your book "from No One". But your self and your consciousness are no less real for being the subjective awareness of your brain states. I, for one, am

interested in your subjective awareness and am confident that I can both measure and analyze it. I trust that my discussion of lucid dreaming will make that point clear.

Just as Metzinger is too mean to himself he is too nice to some of his colleagues. While it is refreshing to read a scientifically critical book that is completely free of nit-picking and character assassination, it is alarming to see Metzinger (in the précis that I received) so comfortable with ideas that are certainly incomplete and probably down right wrong. I refer to the theory of Rodolfo Llinas (to whom I have communicated my misgivings) that dreaming consciousness is simply off-line waking consciousness. This is to say that dreaming (D) = waking (W) – afferent input (I). D = W – I. While it is amazingly true that dreaming does occur in the absence of sensory input, and is therefore rightly considered by Metzinger, Revousuo, Llinas, and me as off-line consciousness, it is distinctly not true that there are no other differences between the two states.

In fact, the robust differences in phenomenal experience that I have already alluded to can be easily measured in reports of REM sleep dreaming. And the physiological evidence, obtained from both animal and human studies, concurs in suggesting that it is regional brain autoactivation of the limbic and association cortex that is at the root of the hallucinosis and emotional intensification while demodulation of the frontal cortex is at the root of the cognitive defects (Hobson *et al*, 2000).

So while it is true that D = W – I, it is more true to say that D = W – I – M where M is proportional to aminergic demodulation of the brain by serotonin and nonepinephrine, the output of which declines to half waking levels in NREM and to near zero in REM. Our brains are activated and fed internally generated data but we lack important cognitive capacities because our brain is aminergicaly demodulated. No wonder we can't think straight in our dreams and can't remember them later.

No doubt Metzinger appreciates this important difference. But in his effort to be inclusive and ecumenical he appears to make an egregious error. While the simplicity of Llinas' theory is seductive, it is both phenomenally and physiologically inadequate.

## 6. What approach should we take to phenomenology?

One of the great strength's of Metzinger's book is the insistence upon an aggressive and thorough attack on phenomenology. What is it like to be conscious? Such a commitment involves us in deliberate and critical self study of the sort advocated by Sigmund Freud. Psychology, philosophy and cognitive neuroscience have not yet faced up to this challenge.

One place where Metzinger shines out particularly brilliantly is in his discussion of lucid dreaming. This important phenomenon has been dismissed as a psychic chimera by many authors and derided as a scientific will-of-the-wisp by others. Why does Metzinger take it so seriously? Why does he so respectfully treat so many of lucid dreaming's nutty exponents? Because he knows, as I do, that lucid dreaming is a valid and potentially useful state of consciousness.

Lucid dreaming is phenomenologically valid because it occurs in and is reported by many sensible people. Like me, Thomas Metzinger is a lucid dreamer. That means that we sometimes become aware that we are dreaming while we are dreaming. This awareness of the true state of consciousness that we are in is quite common in younger

people. It appears to peak at about age 9 or 10 which is trying to tell us something about its relationship to the maturation of the brain.

Then, and later in life, lucid dreaming can also be enhanced – or even induced- by pre-sleep autosuggestion. One simply tells one's self that the bizarreness or unstable orientation of dreams (times, places, and persons changing without notice) signals another part of our mind that one is not awake as one supposes but in an altered state of consciousness called dreaming. Lucid dreaming adepts not only recognize that their true state of consciousness is dreaming but can take advantage of dream phantasmagoria to accomplish magical acts like flying, or making love (as if the laws of gravity and fidelity did not apply).

Thomas Metzinger rightly credits this robust phenomenology because he himself is a lucid dreamer. But you would never know this from his book. I had to call him up and get him to come to Tùbingen and spend a delightful day in discourse with him to learn of his capacity. Perhaps he is too modest or too shy to blow his own phenomenological horn. I encourage him and others to blow it louder!

Thomas Metzinger realizes that the major differences between lucid dreaming and non-lucid dreaming and the differences between dreaming and waking offer exciting scientific opportunities in the search for the neural correlates of conscious experience. On this point Anti Revousuo also weighs in with strong endorsement. How would a programmatic approach to the problem enfold?

As a first step we would need to quantify the phenomenal characteristics of, let us say, three distinctively different states of consciousness: waking, dreaming and lucid dreaming. How can the phenomenology of these three states be reduced so that it is tractable? Certainly not by focusing on such valid but unworkable aspects of consciousness as transparency. All three of the states of interest have this philosophically celebrated quality! That relegates transparency and many other Metzinger constraints to empirical uselessness.

I suggest that if we take a formal approach to the cognitive quality of the three states we can begin to get somewhere. All of the three conscious states of interest are brain activated states but the EEG is too insensitive to distinguish between the specific activation patterns. Brain imaging can do so however.

Hence it is clear that, compared to waking, dreaming is characterized by activation of most brain regions to the level of waking. In REM sleep some brain regions are informatively more active than in waking. They include: the pontine brain stem which is hypothetically responsible for the endogenous brain activation and the pseudo-sensory stimulation that results in the visuomotor hallucinosis of dreams; the limbic system, particularly the amygdola and the temporal and deep frontal cortical regions to which it projects (which is hypothetically responsible for the hyperemotional and remote memory enhancement of dreams; one cortical region and the parietal operculum, which is involved in visuospatial integration and which may therefore help us understand the remarkably faithful simulation of the outside world in dream consciousness.

But another cortical region, the dorsolateral prefrontal region, is conspicuously less activated than in waking. This specific deactivation may constitute the physical substrate of the cognitive incapacity of non-lucid dreaming. The dorsolateral prefrontal

cortex is thought by many cognitive neuroscientists to constitute the physical basis of such executive functions as; working memory; directed thought; self reflective awareness; and critical judgement. Since all of these executive functions are weakened in non-lucid dreaming it is reasonable to propose that it is the underactivation of the dorsolateral prefrontal cortex that causes us to have poor recent memory within and after dreaming and to believe uncritically that we are awake when we are in fact asleep; and to fail to think logically or direct our thoughts when we are dreaming. These journal features can be defined and measured as first person data.

## 7. Lucid dreaming to the rescue

Thomas Metzinger and I agree that when we become lucid dreamers we regain the self-reflective awareness and critical thought that are normally present in waking and normally absent or much reduced in dreaming. By definition, we become aware that our true state of consciousness is more like dreaming than waking. When we become lucid we are also able to direct our thoughts and use our volition to control the direction of our dreams. Thus if we want to have the exciting and gratifying experience of flying we can do so. When I first became lucid I needed to flap my arms as if they were wings but now I simply soar. I can also ski, or skim across the surface of the water or the earth with impunity.

Our lucid dream experiences must be based upon important changes in our brain function. A testable hypothesis is that our dorsolateral prefrontal cortex reactivates to near waking levels while our pons, limbic systems, and our temporal and posteralateral cortex remain sufficiently hyperactive to maintain the perceptual and emotional features of dreaming. In this way, we seize cognitive and volitional control of dreaming, a state in which these functions are normally weakened. Thomas Metzinger and I agree that a PET or, better yet, an MRI study of lucid and non-lucid dreaming is a highly desirable next step in the scientific study of consciousness. The technical obstacles to the realization of such an experiment are formidable but the main obstacle is political and philosophical. Many scientists rule out any study of subjective experience especially one as dubious and evanescent as lucid dreaming.

## 8. An empirical approach to phenomenology

Thomas Metzinger is at least as aware as I am of a need for a systematic empirical study of phenomenology. In failing to reveal his own conscious experiences he is not really "no one" but more exactly a third person half-some-one. As I have already pointed out, this third person half-some-one has already given us more useful and progressive thought than we have any right to expect; so it may seem unfair to exhort him to go a step further and help us achieve a first person science of consciousness.

This is what Anti Revousuo calls for in his chapter in Metzinger's Neural Correlates of Consciousness book. But Revuosuo, whom Metzinger says has become a neuroscientist, has also failed to contribute to first person science. Instead of studying dreaming and waking consciousness as a source of data, Revousuo has promoted the scientifically intestable hypothesis that the function of dreaming is a virtual reality proving ground for practicing and perfecting escape behavior.

Since most dreams are unremembered and because it is at the level of the brain that any such function must be instantiated the explication and realization of the hypothesized practice effects must proceed via a consideration of REM sleep neurophysiology as well as an examination of dream phenomenology.

In other words, I exhort philosophers such as Metzinger and Revousuo to join hands with cognitive neuroscientists in the construction of a science of first person data. It is my strong conviction that young scientists are more open to this than older established scientists. For this reason it may be wise to focus upon our students and let our peers retain their single-mindedness.

My exhortation raises important questions about the division of labor in philosophy, psychology, and neurobiology. Psychology is becoming more neurobiological but works within its well-established behavioral model. There is not much room for either consciousness or the self in Skinner's black box. Therefore we do not see many psychologists studying first person data. Neurobiology eschews first person data even more strongly. Philosophy insists upon its importance but takes no responsibility for developing an empirical approach to it.

It is difficult enough to be a good philosopher, a good psychologist, or a good neurobiologist without expecting people to be good at any two, let alone all three of these fields. And yet it may be that real progress will come only when finally some one accepts such a triple threat challenge. Surely William James would not have shield away from it.

While awaiting for that some one to emerge we can thank Thomas Metzinger for providing the substance—and the spirit—of a team effort. For the first time in my life I feel like I am playing with a peer who understands and respects what I am trying to do.

Isn't that enough? Well yes. And no!

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