

# Brain waves, transcendental fields and techniques of thought

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Now I say that mind and anima are held in union with the other, and form of themselves a single nature, but that the head, as it were, and lord in the whole body is the reason which we call mind or understanding, and it is firmly seated in the middle region of the breast. For here it is that fear and terror throb, around these parts are soothing joys; there, then is the understanding and the mind. The rest of the anima, spread abroad, throughout the body, obeys and is moved at the will and inclination of the understanding.<sup>1</sup>

The naturalism of Lucretius has long seemed by many to be too crude and full of perplexities to muster serious support. It construes the most basic units in the world as moving so fast and chaotically that they cannot be the objects of perception and precise explanation; it treats the mind, the 'animus', as made up of the material of the same type – though not the same quality – as the rest of the body; it links thinking closely to the instabilities of sense experience; it locates the mind in the middle region of the breast rather than in the head; it has difficulty in making sense of free will and responsibility, even while acknowledging the need to do so; its naturalism gives no powers to divinity; it can generate no authoritative basis for morality in the last instance beyond attachment to the world; and it counsels its followers to work on those subconscious dispositions that project life forward after death in order to make peace with death as oblivion. Its speculations were too disconnected from the project of deep explanation to gain support from early modern science and too committed to naturalism to inspire praise from the Christian philosophies of Augustine, Kant, Hegel and Kierkegaard. Besides, most of the Epicurean texts to

which Lucretius is indebted have been lost through a long history of cultural war against that philosophy.

Things may be changing. Today, several brain researchers conclude that the middle region of the breast, while not as complex as several brains in the head, does house a simple cortical complex capable of generating intense feelings of disgust, anxiety, fear, terror and joy. Moreover, the fast, imperceptible units Lucretius called 'primordia' bear a family resemblance not only to atoms but to the electrical fields that carry thinking. As Tor Norretranders says in his review of recent brain research, 'a stimulus can be so short that we never become conscious of it but react to it nevertheless.'<sup>2</sup> Finally, tactical work on dispositional traits installed below consciousness, while ignored by neo-Kantian philosophies in the tradition of Rawls and Habermas, retains a robust presence both in religions of the Book and in nontheistic philosophies pursued by figures as diverse as Friedrich Nietzsche, Michel Foucault, Stuart Hampshire and Pierre Hadot.

Recent neurophysiological research on the brain is highly suggestive, both in its presentation of the nonconscious operations that precede consciousness by a half second and in its suggestions about the role technique plays in thinking and judgement. Take the case of the blind man who could not form images of objects within the range of normal vision. He, nonetheless, like others with this particular malady, was able to carry out numerous activities, such as riding a bike, usually reserved for those with vision. When presented in a test with a series of arrows pointing in different directions, he was able to identify the correct direction in which the arrow pointed almost every time. He thought he was inordinately lucky. He, however, had

‘blindsight’: the part of the brain that forms images is damaged, while ‘the other links between the eye and the brain’ function well.<sup>3</sup> Here is a dramatic illustration of how large chunks of perception are organized below the level of perceptual awareness. Or consider the 16-year-old girl who a team of neurophysiologists at the University of California, Los Angeles, studied to identify the causes of her epileptic seizures. Applying an electric probe to eighty-five separate spots of the left frontal lobe, they eventually hit by chance upon a patch of brain where application of the probe made her laugh. They found that the ‘duration and intensity of the laughter increased with the level of stimulation current.... At low currents only a smile was present, while at higher currents a robust, contagious laughter was induced.’<sup>4</sup> The young girl, following time-ordered principles of retrospective interpretation, decided that these researchers were extremely funny guys. These two cases suggest that a lot of thinking and interpretation goes on during the ‘half-second delay’ between the reception of sensory material and conscious interpretation of it.<sup>5</sup> They further point to the gaps that often open up between first-person, phenomenological interpretations of experience and third-person accounts of it.

### The half-second delay

It seems that ‘incomprehensible quantities of unconscious calculation’<sup>6</sup> take place during the interval of the half-second delay, subtracting some sensory material and crunching the rest to project a set of perceptions and thought-imbued intensities into consciousness, upon which it can then do its own work. Immanuel Kant, let us say, projects an inscrutable transcendental field into this temporal gap. We presuppose this transcendental, supersensible field, he claims, when we explain things according to laws of the understanding; but we cannot inquire further into the concepts of time, space and causality which it sanctions.

This schematism of our understanding in regard to appearances and their mere form, is an art, hidden in the depths of the human soul, whose true modes of action we shall only with difficulty discover and unveil.... The *image* is a product of the empirical faculty of the productive imagination – while the *schema* of the sensible concepts (of figures in space, for example) is a product of the pure imagination *a priori*.... It is a transcendental product of the imagination ..., insofar as these representations must be connected *a priori* in one concept, conformable to the unity of apperception.<sup>7</sup>

The transcendental field provides the understanding with the categories necessary to explanation. That same field operates more directly, but with the same necessity and inscrutability, in Kantian moral judgement. The ‘objective reality of the moral law’ is recognized ‘as an apodictically certain fact, as it were, of pure reason, a fact of which we are *a priori* conscious’. It ‘can be proved through no deduction, through no exertion of the theoretical, speculative, or empirically supported reason.... Nevertheless it is firmly established of itself.’<sup>8</sup> The closure and rigidity many discern in Kantian morality – in, for example, his confident commitment to capital punishment and his refusal to allow someone to lie even to save the life of another – may be bound up with his insistence that the experience of morality as law takes the form of apodictic recognition. Finally, aesthetic judgement also falls under the jurisdiction of the supersensible realm. To judge something to be beautiful is to attain a spontaneous accord of the faculties that expresses the dictates of the supersensible realm without being able to conceptualize them.

Apperception in explanation, recognition in morality, expression in aesthetic judgement: the Kantian models of explanation, morality and aesthetics invoke in different ways an inscrutable supersensible field prior to consciousness that regulates its operations. The introduction of the transcendental field enabled Kant to devise a creative strategy to protect Christian freedom and morality from the corrosive effects of the Newtonian science of mechanics he also endorsed. The crucial move is ‘to ascribe the existence of a thing so far as it is determinable in time, and accordingly its causality under the law of natural necessity, merely to *appearance*, and to attribute freedom to the same being as a *thing in itself*’.<sup>9</sup> The Kantian supersensible field thus subsists below the level of consciousness and above the reach of modification through scientific knowledge, moral decision or technological intervention. Such a philosophy enabled Kant to disparage naturalists such as Epicurus and Lucretius for sinking into a metaphysical dogmatism that pretends to know the contents of the inscrutable transcendental field and for anchoring ethics in something as crude as the sensible realm.

But what happens if the half-second delay is set, not in a supersensible domain, but in the corporealization of culture and the culturization of corporeality? That is, what if many of the messages flowing between multiple brains of differential capacities in the same person are too small and fast to be identified by consciousness but, nonetheless, available, to some

degree, to cultural inscription, experimental research and technical intervention? Does this open the door, not to disproof of the Kantian transcendental and proof of the alternative, but to a contending interpretation of the transcendental field that moves a little closer to Lucretius? It may be that Kant's identification of an inscrutable transcendental field is profound, while his insistence that it must be eternal, supersensible and authoritative in the last instance is open to modification. To contest the specific Kantian reading of the transcendental field, while insisting upon its operation in some sense, would be to call into question *both* the adequacy of Kantian moral philosophy and the strategy of neo-Kantians who often proceed as if they can avoid engagement with such a field altogether.

Neo-Kantians tend to treat arts of the self as if they were simply therapies to deal with neuroses or blockages in the powers of normal rationality, recognition, deliberation and decision, rather than more ubiquitous exercises, tools and techniques that affect the shape of thinking and sensibility in profound ways. The key move is to translate the Kantian transcendental field into a layered, immanent field. If the unconscious dimension of thought is immanent in subsisting below the direct reach of consciousness, effective in influencing conduct on its own and also affecting conscious judgement, material in being coloured by the neurological processes in which it occurs, and cultural in being affected by the inscriptions of experience and experimental interventions, then several theories of morality ranging from the Kantian model of command, through the Habermasian model of deliberative ethics and the Rawlsian model of justice, to the Taylorite model of attunement to a higher purpose in being, may deserve active contestation. From the vantage point pursued here, some of the above theories systematically underestimate the role of technique and artistry in thinking and ethics, while others overestimate the degree to which the cultivation of virtues is linked to an intrinsic purpose susceptible to attunement or recognition.

### **Immanent naturalism and thinking**

By naturalism I mean the refusal to endorse a divine or supernatural force in life. The form of naturalism I endorse gives an important role to culture; in fact it finds culture mixed deeply into both unconscious mechanisms of thought and conscious reflection. Let us construe *eliminative naturalism* to be a philosophy that reduces the experience of consciousness to non-conscious processes. Let us construe *mechanical naturalism* to deny any role to a supersensible field while

also finding the contents of the mind to be amenable to precise calculation and explanation. I am not sure how many eliminative and mechanical naturalists there are, though some philosophers are characterized in this way by their critics. Let us construe *immanent naturalism* to be a perspective in which the transcendental is translated into an immanent field that mixes nature and culture, and in which consciousness is retained as a field that enters into active relationships with the immanent. An immanent field is efficacious and inscrutable (to some uncertain degree), but not immaterial. It is infrasensible rather than supersensible. Moreover, some elements in the field that exceed our (current and perhaps future) capacities of explanation are nonetheless susceptible, to some uncertain degree, to both cultural inscription and experimental tactics of self-intervention. That is, as Epicureans and several monotheistic religions have often presumed in their practices, the powers of cultural inscription and experimental intervention into the inscrutable domain, while limited, nonetheless *exceed* those of direct conscious control and scientific explanation. Finally, immanent naturalists resist both a command model of morality set in a juridical rendering of the transcendental field and a teleological model of ethics set in a divine order of things.

We do not deny that pressures and directives flooding into consciousness from the infrasensible field often feel as if they express 'the apodictically certain fact of pure reason'; we merely contest the conclusion that this sort of feeling actually expresses 'the objective reality of the moral law itself'. To us nature is more diverse and interesting than any god; and the body is more layered, rich and creative than the soul. Most immanent naturalists support an ethic in which a visceral attachment to life and the world provides the preliminary soil from which commitment to more generous identifications, responsibilities and connections might be cultivated. This preliminary attachment is fundamental in that without it the further cultivation of generosity and responsibility could not proceed. But it is also contingent in that, while it is often mixed into the milk of life, there is no cosmic guarantee that it must be so, or if so, that it will prevail against profound injury, loss, violence or brutality. The indispensability of a generous ethos of cultural life is stalked by its fragility.

According to these rough and ready standards, thinkers as diverse as Epicurus, Lucretius, Spinoza, Nietzsche, Michel Foucault, Stuart Hampshire, Gilles Deleuze, Moira Gatens and Bernard Williams participate in immanent naturalism. Other (possible) natural-

ists such as, say, John Rawls, Bertrand Russell, Hans Blumenberg and Nancy Fraser, while often appreciating the need for ethical generosity in life, may not fit so readily. This is partly because they do not engage the immanent field of perception, thinking, interpretation, identity and judgement, but also because they do not explore the problems and possibilities that arise when the layered activity of thinking encounters those exercises, disciplines, techniques and impositions that help to constitute it.

If naturalism in all its forms today presents a minority report within moral and political philosophy, immanent naturalism constitutes a dissenting opinion within the minority. And its minority status is even more notable when you think about citizens at large in most Western states. Most citizens, certainly in the United States, opt for one or another conception of morality set in a supersensible realm. Some high articulations of such a perspective – presented by figures as diverse as Charles Taylor, Emmanuel Levinas, Paul Ricoeur, Alasdair MacIntyre and Michael Sandel – ascribe considerable importance in thinking and ethics to the ‘tacit dimension’ and the ‘embodied self’. But they forsake immanent naturalism in the last instance for a divine rendering of the transcendental field. The interesting question is what happens to the monopoly rights over morality claimed by some – but not all – of these parties when a group of naturalists seeks to rewrite the transcendental rather than to erase it. Even more enchanting are the positive possibilities of selective alliance and connection between immanent naturalists and transcendentalists who do acknowledge the profound contestability of their respective enunciations of the immanent/transcendental field.<sup>10</sup>

To think, according to the *OED*, is ‘to cause (something) to appear (to oneself)’, ‘to form connected ideas of any kind’, and ‘to form a definite conception by a conscious mental act, to picture in one’s mind’. These definitions, taken together, have the advantage of including both conscious and unconscious processes under the rubric of thinking. Let us treat thinking, provisionally and crudely, as those activities through which conclusions and judgements are reached and new connections among ideas generated. That leaves open how layered thinking is, the role of intensity, mood and sensibility in it, and the relation of technique to it. A technique of thought might be an exercise or other intervention that alters the direction of thinking or the mood in which it is set. An electrical probe becomes a technique of thought when applied purposively to a patch of the brain; clearing your mind of everyday concerns while going on a long, slow run in the woods can be another.

Kant, who places thought under the juridical control of inscrutable reason, would distinguish sharply between thinking that conforms to the dictates of reason and thinking altered in its direction by external tactics. Therapies and disciplines can refine or coarsen inclinations outside the medium of thought, but in a Kantian world correct thinking itself is organized under the inscrutable guidance of reason. A transcendental illusion, for instance, occurs when thinking wanders beyond the limits in which it is properly set. Lucretius, on the other hand, finds the jumps and starts within thinking itself to provide it with some of its most creative moments. He is interested in techniques that might spur new thoughts into being. And he commends tactical work on the quality of thought for ethical reasons. You might, for instance, strive to imagine the serenity of death as oblivion every time your heated imagination projects rewards and punishments into an afterlife, doing so to ease your resentment against mortality and to render you less likely to act cruelly toward others. Stuart Hampshire, indebted to both Lucretius and Spinoza, also finds the Kantian distinction between correct thinking and technical distortion to be forced. For the evanescent activity of thinking occurs as cultural elements are folded into complex neurophysiological circuits. Thinking is irreducible to any of the ingredients that enable it, but it is also affected profoundly by the infrasensible media of its occurrence. Writing in 1970, before the most recent surge in brain research, Hampshire says,

In all probability physical structures of a kind that we cannot now even begin to envisage are involved in the acquisition of language and mathematical skills, in the exercise of memory and of the imagination, and in the formation of complex sentiments and mental attitudes.... Indeed the word ‘mechanism’, which I have introduced, may be thought misleading in so far as it is associated only with types of physical processes, which are not yet recognized, or even envisaged, in contemporary physics.<sup>11</sup>

Hampshire treats the mechanisms ‘at work at different levels, or in different types of thinking’ as themselves potential objects of knowledge and intervention. He agrees with his hero Spinoza in regretting that most philosophers in the past

could not bring themselves consistently to view human beings solely as one kind of natural object among others. Under the influence of inherited moral and religious ideas, and of their natural pieties, his predecessors had always kept some powers of mind in reserve, treating these superior powers of thought as if they transcended the natural order....



They seemed to have assumed that those powers of mind, which are the conditions of any organized knowledge of natural processes, cannot themselves be made the objects of such knowledge.<sup>12</sup>

Immanuel Kant, as Hampshire says, gave the pious tradition new energy and confidence in the eighteenth century by rewriting it to protect it from the threats posed by Spinoza and Newton respectively. Hampshire, under the influence of Spinoza, pursues a more reflexive naturalism than that offered by Lucretius. He emphasizes the importance of 'shifting attention back and forth from the consideration of persons as active observers of the physical world to the consideration of them as also observed objects, with their bodies in a dual role, as both purposely used instruments of exploration and also as observed objects'. It is indeed this tension and interdependence between the self as a first-person agent of thought and as a third-person student of the material medium of thought that opens one of the doors to creativity in thinking. Moreover, to acknowledge the 'dual role' you yourself play means, on Hampshire's model of thinking, that you must come to terms with the impact technical intervention can have on it. The thinker aware of the neurophysiological element of their own thinking knows that if 'the condition of the instrument is grossly changed, as by drugs, the power of thought is grossly changed also'.<sup>13</sup>

The reflexivity Hampshire commends is not reducible to Hegelian reflexivity, since the former anticipates that the gap between the process of making connections in thought and explanations of the 'mechanisms' of thought work is unlikely to be eliminated entirely. Hampshire does not endorse the encompassing metaphysic of *Geist*. Thinking can be altered under the influence of new knowledge about the conditions of thought, but the self often enough finds the resource of conscious command insufficient to alter either the direction of its own thought or the character of its being. Techniques of the self, aimed at unconscious processes below the reach of conscious control, may proceed further into these domains. Drugs, for instance, are to be neither honoured nor depreciated in general, but to be appraised in terms of the sorts of effects and side effects they have on health, thinking and sensibility.

Hampshire, perhaps again under the spell of Spinoza, tends to assume that new knowledge acquired about the geology of the immanent field will be translated into improved explanations of those processes. Although this tendency is itself sometimes qualified, he tends to balance his critique of the juridical model of thinking propagated by Kant with endorsement of a

confident model of scientific explanation. Put another way, he expects the gap between third-person and first-person perspectives to persist, but he anticipates that tight third-person explanations of those processes may well be developed.

Recent brain research suggests to me, however, that the discovery of new things about the immanent field of thinking may both deepen our understanding of the *geology of thought* and help us to understand why *law-like explanations of the mechanisms of thought* are likely to remain partial and incomplete. Thus, an intense little brain underneath the cortex called the amygdala generates rapid, crude judgements in dangerous situations below the level of conscious assessment and feeling. Its effects on the other brains may not be susceptible to close tracking and explanation, partly because it both influences conduct on its own and bumps *intensities* into centres of conscious thinking and judgement which these brains then process according to their own differential capacities of reception, speed and organization. The amygdala is one of the brains involved in those crunching operations of the unconscious mind, working 'sub-symbolically, in codes that are not decipherable consciously'. And 'consciousness seems to do things serially, more or less one at a time, whereas the unconscious mind, being composed of many different systems, seems to work more or less in parallel'.<sup>14</sup>

The conceptual connections formed in conscious thinking are notoriously irreducible to causal explanation, and the rapid, parallel systems that both affect judgement directly and project thought-imbued intensities into consciousness may be too fast and variable in intensity to submit to close, situational computation either. Since the effects of one system are bounced or bumped into other systems with different capacities of reception and organization, you would have to form a god's eye view of the entire complex to 'explain' its operations at any specific time. The geology of thought is susceptible to third-person understanding, but the intercoded activities of unconscious and conscious thinking may themselves escape the reach of the most confident models of scientific explanation.

Even Hampshire's modified image of the 'mechanisms of thought' may remain residually attached to a model ill-suited to the electrical synapses and chemical resonances within and between brains of differential speed, intensity and capacity. Hampshire tends to ignore variations in intensity initiated below the level of feeling and conscious judgement that play such a significant role in the adventures of thought. The jolts, charges and flashes through which conscious thinking



is sometimes blocked and at other times inspired to new heights of creativity are underappreciated by a model in which mechanism receives priority over chemical–electrical processes. The following quotation from Joseph LeDoux, a neurophysiologist on the cutting edge, as it were, of brain research, may indicate some of these differentials:

When the amygdala detects danger, it sends messages to the hypothalamus, which in turn sends messages to the pituitary gland, and the result is the release of a hormone called ACTH. ACTH flows through the blood to the adrenal gland to cause the release of steroid hormone. In addition to reaching target sites in the body, the steroid hormone flows through the blood into the brain, where it binds to the receptors in the hippocampus, amygdala, pre-frontal cortex, and other regions.<sup>15</sup>

Lucretius thought the infinitesimal size, rapid speed and unpredictable swerves of ‘primordia’ rendered them ill-suited to close or complete explanation. Gilles Deleuze’s work resonates sympathetically with such a view. His projection of virtual elements too fast and multiple for conscious inspection or close third-person

explanation meshes with his exploration of how differential degrees of intensity in thought move it in some directions rather than others, open up lines of flight through which new concepts are introduced into being, and render thinking too layered and unpredictable to be captured by a juridical model in the Kantian tradition. He translates the story of juridical *recognition* in which Kant encloses thought in the last instance into one in which thinking is periodically nudged, frightened, inspired or terrorized into action by strange *encounters*. Recognition is a secondary formation often taken by consciousness in its innocence to be primary or apodictic, but thinking sometimes disturbs or modifies an established pattern of thought.

At its most creative, thinking is the invention of new concepts and possibilities out of the experience of friction between old conventions and surprising events and between judgments at one level of being and those at others. Deleuze thinks that nature itself is unfinished and full of micro-differentials that periodically accumulate to generate new things. Responding to the

‘dogmatic image of thought’, Deleuze says,

Do not count upon thought to ensure the relative necessity of what it thinks. Rather, count upon the contingency of an encounter with that which forces thought to raise up and the educate the absolute necessity of an act of thought *or a passion to think*.<sup>16</sup>

Thinking often arises out of surprising encounters, either with thought-imbued conventions that disturb, inspire or enchant you, or with something mute in the world that has not yet been translated into the register of thought:

This something is an object not of recognition, but of a fundamental *encounter*. What is encountered may be Socrates, a temple or a demon. It may be grasped in a range of affective tones: wonder, love, hatred, suffering. In whichever tone, its primary characteristic is that it can only be sensed.<sup>17</sup>

### Thinking and technique

It may be that the impressive human powers to set cultural scripts of thought both create conditions of possibility for thinking and fall short of governing

the encounters, intensities and connections in thinking itself. There is a wild element in thinking that enables thinkers to invent new concepts and to usher new ideas into being. It also seems likely that the application of techniques by the self to its own thinking can engage the wild element in rethinking some established cultural conventions. Techniques of thought, then, can be both instruments of normalization and spurs to periodic challenges to established scripts of normalization.

Hampshire, Deleuze and LeDoux, by translating the transcendental field of Kant into an immanent field of forces below consciousness, open up fascinating questions about the relation between thinking and technique and between both of these and ethics. Hampshire, for instance, suspects that each time you improve your understanding of the mechanisms of your own thinking, you by that means make at least some difference to the timbre, tone and character of your being. Thinking both expresses moods and sensibilities in which it is already set and makes a difference to them. I conclude that yesterday I was angry about something else when I resisted your call for help, and that may open up an alternative train of thought and responsiveness today. Or the young girl, upon reviewing how she laughed infectiously when her brain patch was touched with an electric probe, may reinterpret the source and meaning of her laughter. She may then find the scene to be more amusing than the experimenters wielding the probe. She, as it were, activates other electrical impulses to open up possibilities of interpretation exceeding those followed when she treated her consciousness as a species of apodictic recognition during the first encounter.

But where, according to immanent naturalism, does technique leave off and thinking begin? Or is that question too simple-minded? It may be that immanent naturalism is more appreciative of the productive possibilities of technique in thinking than the transcendental tradition because it finds thinking, technique and culture already intermeshed in the brain waves themselves. Its inability to draw a sharp line between thinking and technique may turn into an advantage when it comes to thinking about the relation between thinking, technique, culture and ethics. Is it possible that you cannot get through a day without presupposing the difference between thinking and technique, but that, also, you cannot find a sufficient criterion by which consistently to disentangle the one from the other without appealing to a juridical model of the transcendental field itself open to contestation?<sup>18</sup> Let us draw up a list of techniques, both gross and

subtle, by which thinking might be modified in its course, speed, intensity or sensibility. To simplify, our examples will be those in which an individual rather than a group is the object, and in which the individual either applies the techniques to itself or agrees to have it applied by others.

- You listen to Mozart while reading a philosophical text, in order to relax your mind and sharpen its acuity of analysis.
- You undergo surgery to increase the flow of blood to the brain, in the hopes of avoiding a stroke and/or improving the quality of your thinking.
- You go for a run after having struggled with a paradox or antinomy that perplexes you.
- You take Prozac or Valium to relax your nerves and improve the mood in which your thinking occurs.
- You have yourself subjected to a severe whipping in the hopes of resolving some feeling of guilt that will not subside.
- You expose yourself to an image that, against your conscious intent, has disturbed you in the past, while listening to the Talking Heads in the bathtub and imagining how mellow it would be to dive into crystal blue water off a Caribbean beach.
- You underline a text while reading it, and then outline the text you have just underlined.
- You give in to a feeling of intense regret you had previously resisted.
- You concentrate your mind on a practical issue after having gone through several of the activities listed above.
- You introduce full-spectrum lighting into your house during the winter to help lift yourself out of morose thoughts and passive moods.
- You improve your powers of persuasion by giving talks in public settings.
- You reach a conclusion after reconsidering the available arguments and evidence in a mood that has shifted significantly from the last time you engaged this issue.
- You read a book by Spinoza to sharpen your powers of argument and subject some of your previous presumptions to shock therapy.
- You go dancing.

These examples could be modified along several dimensions, and proliferated endlessly. You could include those in which others apply tactics to you without your consent, and in which some of these tactics, and more punitive ones besides, are folded into general institutional practices. Or you could form a virtual community of, say, immanent naturalists

connected by print, phone, the Internet, conferences, readings and travel, the members of which fold several of these tactics into their associational activities. Such a formation, indeed, would adjust to the conditions of late-modern life the garden community through which Epicureans responded in their day to the hegemony of polytheism.

But the list we have assembled is already suggestive about the ubiquity of technique in thinking and judgement and about the close internal connections between thinking, technique performance, mood and sensibility. It is hard to locate an instance in which several of these elements are not involved, though the differentials do vary from case to case. Should we, then, defer the temptation to reduce these diverse interventions to familiar categories, calling, say, one set internal to thought and another external to it? Is concentrating your mind more natural than taking Prozac to clear it of the most depressive thoughts? What about the difference between smoking a cigarette while reading, and underlining a text? Or between thinking under the influence of Spinoza, and meditation? At what point does listening to Mozart while you write change from forming the background to your thinking to becoming an element in it? If 'it is precisely the point of materialism to assert a much closer relation between processes of thought and physical processes than is implied in most of the idioms of ordinary speech',<sup>19</sup> it may be a creative tactic of thought to resist placing this miscellany under the automatic authority of those idioms. For the traditional idioms of ordinary speech may remain too fettered to the logic of recognition, while philosophical reflection, brain research, and the accelerated speed of everyday experience in a world moving faster than heretofore may combine to call the sufficiency of that logic into question.

## And ethics?

An orientation to ethics growing out of immanent naturalism contains several tendencies, though different practitioners inflect them in specific directions. I will sketch a few of these tendencies in the broadest terms, scavenging freely from the giants in this tradition.

Immanent naturalists, as already indicated, resist grounding ethics in a command of practical reason or an intrinsic juridical source. While messages flowing from the immanent field to the higher, more complex brains may often be received as if they were law-like commands or the products of apodictic recognition, such first-person experiences can be called into question – though probably not disproved in the last instance – by investigations from a third-person per-

spective. In conjunction with the translation of the transcendental into the immanent, then, we revise some of the questions of ethics that are given priority in the transcendental and quasi-transcendental traditions. We shift priority from 'Why should I be moral?', or 'What is the necessary capacity presupposed by the practice of morality?', or 'What are the most fundamental principles of morality?', to 'How do you cultivate a generous *sensibility* from which to articulate specific orientations to responsibility, obligation and justice in a pluralistic culture?' For it does seem that the conceptions of responsibility and justice one accepts are closely bound up with the sensibility one brings to these issues. And a sensibility can be modified by working tactically upon the immanent register in which it is partly set.

The most distinctive contribution contemporary immanent naturalists make to ethics is in the retrieval for ethical life of 'arts of the self' (Nietzsche), 'tactics of the self' (Foucault), 'techniques' (Hampshire) and 'micropolitics' (Deleuze). This retrieval connects an ethic of cultivation set in a philosophy of immanence to some monotheistic traditions along one dimension, even as it diverges from them along others. Thus, as Talal Asad has shown in his exploration of medieval Christianity, monastic practices perfected techniques to cultivate 'aptitudes of performance' appropriate to the faith and below the register of belief.<sup>20</sup> The role of arts of the self, however, is demoted in Kant's rewriting of Christian morality, though Kant does allow 'gymnastics' to play a role in preparing the inclinations to accept the moral law. And contemporary secular, neo-Kantian theories pretty much jettison this dimension of ethical life altogether.

This article makes technique the hinge that connects thought (as stored thinking) to sensibility. In a world in which 'disciplinary society' has become extensive and intensive, such tactics can function as counter-measures to build more independence and thoughtfulness into our ethical sensibilities. You might, for instance, intervene experimentally on your own immanent register to fold more generosity and forbearance into your responses to movements in the domains of gender, sensual affiliation, ethnic identification and religion/irreligion that disrupt the self-confidence of your own identity.

An ethical sensibility, you might say, is composed through a particular layering of affect into the materiality of thought. A sensibility, thereby, is a constellation of thought-imbued intensities and feelings. To work on an already established sensibility by tactical means, then, is to address some of these layers in



relation to others. You address experimentally relays between thought-imbued *intensities* below the level of feeling and linguistic complexity, thought-imbued *feelings* below the level of linguistic sophistication, *images* that trigger responses at either of these levels, and linguistically sophisticated patterns of *argument and judgement*. To foreground the importance of arts of the self, then, is to flag the insufficiency of argument to ethical life without denying its pertinence. Michel Foucault suggests the significance of such relays in techniques of the self when he says, 'It is not enough to say the subject is constituted in a symbolic system. ... It is [also] constituted in real practices.... There is a technology of the constitution of the self which cuts across symbolic systems while using them.'<sup>21</sup> The thoughtful application of tactics to one's previous patterns of affective thought can inspire responsiveness to new social movements that challenge or disrupt hegemonic practices of sensuality, religion, metaphysics, gender, ethnicity and market rationality. As they proceed, such tactics might allow new thoughts to come into being, thoughts previously beyond one's reach or range of tolerance. Thinking, sensibility and culture are interwoven.

You can think of micropolitics, in the Deleuzian sense, as a collectivization of arts of the self. In a disciplinary society, micropolitics is ubiquitous. Immanent naturalism makes a timely contribution to contemporary political engagements, then, through its appreciation of how the micropolitics of cultural life persistently shapes the warp and woof of ethical judgement. Images of a dead foetus flashed to those assessing the legality of abortion; pictures of a dependent old person in a nursing home presented to those thinking about the legalization of doctor-assisted suicide; talk-show repetitions of the view that you can't be a moral individual or participate in a moral culture unless you and it are governed by religious principles – these examples are steam pouring out of the cultural kettle of late-modern life.

Several secular conceptions of morality, while they too are often committed to plurality, underplay the ubiquity and significance of such cultural practices to the background of cultural judgement. They may do so because they invest conscious deliberation with more autonomy, closure and purity than it can actually marshal. Immanent naturalists, by comparison, emphasize the importance of sounds, smells, images, rhythms *and* conceptually refined deliberation to ethical life. Those who are pluralists try to devise micropolitical strategies to contest some of the ugly dimensions of the culture wars today.

Most of the contemporaries I have dubbed immanent naturalists acknowledge that there is a strong element of faith (and therefore contestability) in their fundamental orientation to being. In this respect we share something with those theists who make a similar acknowledgment. Our faith in the non-theistic character of the immanent field can be supported by a series of considerations, but it is unlikely to be demonstrated as true. That is why we seek to enter into relations of agonistic respect with alternative faiths. Acknowledgement of the element of faith in our doctrine may combine with our willingness to rewrite (rather than reject) the transcendental field and with our positive orientation to arts of the self to foster alliances with cultural pluralists in the monotheistic traditions.

A contemporary immanent naturalist, aided and instructed by fascinating developments in brain research, can say something about the geology of thought. One can outline how layered thinking is; how each layer contains distinctive speeds, capacities and intensities that affect its foreign relations with other layers; how particular intensities of proto-judgement often surge up from the lower strata, flooding the slower and more refined layers of conceptual thought and conscious imagination, overwhelming them for a time or starting them down new, exploratory paths; how these moments of creativity in thinking sometimes open up new lines of flight for an individual, group or entire constituency; and how these new lines of flight in turn suggest tactics by which to alter thought-imbued intensities below the conscious register. The 'immanence' in the naturalism affirmed here thus alerts us to an element of wildness in thinking, as well as to its layered character. That wildness can sometimes enable creativity in thinking, a creativity that may be particularly important to nurture during a time when the tempo of life is faster than heretofore and when many individuals, constituencies and states are periodically confronted with surprising events that disrupt established codes of identity and judgement. Since an ethic of cultivation plays up the element of sensibility in ethics over those of principle and code (without denying the pertinence of the last two), such an orientation may be particularly appropriate to a time when established codes are periodically unsettled by the eruption of new and unexpected events. And since the cultivation of creativity in thinking is particularly important under cultural conditions of speed, freedom of thought and expression – already supported actively by Epicurus, Spinoza, Hampshire, Foucault and Deleuze – emerges as a central principle of an ethic of cultivation.

Thinking is periodically inspired by unexpected encounters that jar it into motion out of stupor or that call into question chunks in the conventional storehouse of thought. Changes in thinking affect, over time, the shape and quality of the ethical sensibility from which one acts. And tactical interventions into sensibilities installed at several layers of being can make a significant difference to the quality of thought and action. A philosophy of immanent naturalism, linked to the ideals of freedom and plurality sketched here, maintains each of these themes in interdependence and tension with the others.

## Notes

1. Lucretius, *De Rerum Natura*, in John Gaskin, ed., *The Epicurean Philosophers*, J.M. Dent, London, 1995, p. 161. The editor worries about the physiology of Lucretius. It is 'old-fashioned by the standards of Alexandrian science even when he wrote. Fortunately the philosophical argument is not disturbed by reading "brain" ... for "middle region of the breast".'
2. Tor Norretranders, *The User Illusion: Cutting Consciousness Down to Size*, trans. Jonathan Sydenham, Viking, New York, 1998, p. 255.
3. Ibid., p. 170.
4. Reported in the *New York Times*, 10 March 1988, under the title, 'Who Needs Jokes? Brain Has a Ticklish Spot', Section D, p. 1.
5. As Tor Norretranders points out in *The User Illusion*, the 'half-second delay' is actually an average. Norretranders appreciates that you might object that some reaction times are 'a lot shorter than 0.5 second. It does not take a half a second to snatch your fingers away when you burn them! So how can it take half a second to move of your own free will? ... Well, it can because reactions are *not* conscious.... Our reaction time is much shorter than the time it takes to initiate a conscious action' (p. 221). We move here, as we shall see, into the quick, crude reaction time of the amygdala that precedes feeling and consciousness.
6. Norretranders, *The User Illusion*, p. 164. This phrase occurs when Norretranders is contesting the sufficiency of those computer models of the mind that seek to formulate the rules which govern conscious thinking. For a superb exploration of the 'missing half-second' that prompts some of my own thinking, see Brian Massumi, 'The Autonomy of Affect', in Paul Patton, ed., *Deleuze: A Critical Reader*, Blackwell, Oxford, 1996, pp. 217–39.
7. Immanuel Kant, *Critique of Pure Reason*, edited by Vasilis Politis, J.M. Dent, London, 1993, p. 145.
8. Immanuel Kant, *The Critique of Practical Reason*, trans. Lewis White Beck, Macmillan, New York, 1993, p. 49.
9. Ibid., p. 99 (my emphasis).
10. In *Why I am not a Secularist* (University of Minnesota Press, Minneapolis, 1999), I contend that secularism, despite its important virtues, blocks promising lines of public communication between theistic and nontheistic orientations about the mysteries of life. This essay attempts to fill out some dimensions in one such nontheistic orientation.
11. Stuart Hampshire, 'A Kind of Materialism', in his *Freedom of Mind*, Princeton University Press, Princeton NJ, 1971, p. 211.
12. Ibid., pp. 211–12.
13. Ibid., pp. 213, 218.
14. Joseph LeDoux, *The Emotional Brain*, Simon & Schuster, New York, 1996, p. 280.
15. Ibid., p. 240.
16. Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton, Columbia University Press, New York, 1994, p. 139 (my emphasis).
17. Ibid., p. 139. The above quotation points to a line of difference between Deleuze and Hampshire. The lines of connection are even more important. They are further suggested by the fact that Hampshire wrote one sympathetic book on Spinoza and Deleuze wrote two.
18. It is predictable that upon reading this article someone will say, 'But you can't make judgements about the correctness, quality or rationality of thought without making presuppositions about the standards involved. And Connolly fails to acknowledge this...' But, of course, I do acknowledge it every day. It is just that I also imagine that some standards and criteria we now accept uncritically might unexpectedly become objects of critical investigation themselves at another point, just as the 'transcendental deductions', 'fact/value' distinctions and 'analytic/synthetic' dichotomies of recent generations are now objects of critical scrutiny.
19. Hampshire, *Freedom of Mind*, p. 225.
20. As Asad says, in medieval monastic life the 'liturgy is not a species of enacted symbolism to be classified separately from activities defined as technical but is a practice among others essential to the acquisition of Christian virtues.... The things prescribed, including liturgical services, had a place in the overall scheme of training of the Christian self. In this conception there could be no radical disjunction between outer behavior and inner motive, between social rituals and individual sentiments, between activities that are expressive and those that are technical' (*Genealogies of Religion*, Johns Hopkins University Press, Baltimore MD, 1993), p. 63.
21. 'On the Genealogy of Ethics: An Overview of Work in Progress', in *The Foucault Reader*, edited by Paul Rabinow, Pantheon, New York, 1984, p. 369. The confined role given to argument in this conception of ethics tracks the Kantian claim that morality as law is not something known through argument but is recognized apodictically. To translate the Kantian transcendental into an immanent field is to rewrite, rather than simply reject, Kant's view about the limits of argument in ethics. For an essay that responds to neo-Kantians who read Foucault reductively see Jane Bennett, "'How is it, then, that we still remain barbarians?": Schiller, Foucault and the Aestheticization of Ethics', *Political Theory*, November 1996.