

Seminar “Reading Levy’s *Neuroethics*”
Session 7 (13:30-15:30, November 30, 2007)
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In this session, we read the chapter 4 “Reading minds/controlling minds” (pp. 133-156). In this chapter, Levy introduces the recent developments of neuroscientific technologies, and examines whether these technologies can help to read and/or control other minds. Some contend that we can detect others’ lies with the help of neuroscientific technologies, and that by this we can identify terrorists, for instance. Or if neuroscientific technologies sufficiently develop, we might be able to control others as we want. Facing these possibilities, others argue that neuroscientific technologies are serious threats to our society in that they could undermine our privacy and autonomy. Levy scrutinizes these problems, and argues that we do not have special reasons to worry about neuroscientific technologies.

First, let us look at Levy’s discussion on mind reading. According to Levy, current lie detection technologies such as polygraph machines face serious difficulties such as giving false positives or false negatives, and thus people get interested in neuroscientific technologies to detect lies effectively. In their view, it is true that we cannot directly detect lies, but examining how the brain works and identifying the neural correlates of thoughts, we will be able to see whether a subject tells us a lie. That is, “[b]rains do not lie” (p. 134). Researchers such as Lawrence Farwell and Langleben try to detect lies using neuroscientific technologies such as “brain fingerprinting” based on memory and encoding related multifaceted electroencephalographic response (MERMER) or functional magnetic resonance imaging (fMRI) respectively. After examining these neuroscientific technologies, Levy argues that “the kind of mind reading technology which is most feared, which can scan the brains of subjects and reveal intimate details about their thoughts, without their knowing that they are under the mental microscope, is (at least) a long way off” (p. 138). The reasons for this are that “we need to establish a baseline for responses we know to be truthful, against which to compare the probes of interest,” “[c]onditions must be carefully controlled and the subject (relatively) cooperative,” and equipments for brain fingerprinting or fMRI must be portable or concealable (Ibid.). Current technologies do not satisfy these conditions. To detect lies, we have yet to improve these technologies.

We have thus far seen the lie detection technologies. How about mind reading in general? Levy presents many studies of identifying the neural correlates of thoughts. After scrutinizing these studies, Levy argues that it is a long way for us to have a useful mind reading machine. In his opinion, it is relatively easy to decode the early visual system, arithmetic operations, or other cognitive tasks because brain modules, which we can easily decode, deal with them. Yet decoding more abstract and complex thoughts is not so simple. These thoughts are handled by domain-general mechanisms. According to Levy, “it may be that domain-general thoughts have neural correlates that are far more varied across subjects, and perhaps even across time within the brain of a single subject” (p. 143). Because of that, it is not likely that the neural correlates of thoughts are unchanged over the lifespan. Thus we will not have a useful mind reading machine in the foreseeable future.

As to the problem of controlling minds, Levy presents two ways of controlling minds: the use of psychopharmaceuticals and the effects of transcranial magnetic stimulation (TMS) on voluntary actions. Then he goes on to explain Phelps and her colleagues’ studies of the neural correlates of racism. In their studies, Phelps and her colleagues used fMRI to find a correlation between racism and amygdala activity. The uniqueness of these studies is that they are not done only by fMRI. In studying the correlation between racism and amygdala activity, Phelps and her colleagues employed cognitive psychological methods to measure the degree of racial prejudice: the implicit association test and the eyeblink startle test. Although I cannot explain these two tests in detail, the point here is that “[i]n order to establish a baseline for comparison with their fMRI measure of racism, they [Phelps and her colleagues] used the tools of cognitive psychology: they used

measures that are environmental rather than internal, exterior rather than interior” (p. 149). This suggests that if reading and controlling minds is a problem, then we should worry not only about neuroscientific technologies, but also about cognitive and social psychology. Both can reveal our information without our consent. As examples of his view, Levy discusses the study of facial expressions as lie detectors, ideological control of others, and the ego-depletion hypothesis. In his opinion, we have no special reason to worry about neuroscientific technologies. There are other external ways to be worried about. Some readers might discern that this is closely related to Levy’s argument for the parity principle. Levy argues that “we see that the very same reasons we have to fear neuroscientific mind reading and mind control apply, with at least equal force, to existing techniques, and perhaps even more to new discoveries coming not from neuroscience but from cognitive and social psychology” (p. 155).

I have thus far explained Levy’s argument. In this chapter, Levy mainly presents many studies and experiments of reading and controlling minds. His point is that we have no special reason to worry about neuroscientific technologies in that it is a long way to have useful technologies to read and control minds in the foreseeable future. But this is puzzling. If we need not worry about neuroscientific technologies of reading and controlling minds, then why does he write this book and found the journal *Neuroethics*? Is his neuroethics merely an apologetics for neuroscience? Neuroscientists would be pleased. But if we think that philosophy is a critical discipline, then this is a retreat. We need to know what Levy’s political agenda is and to decide whether we agree with him.