Book Review / Prikaz knjige

Nada Gligorov

Neuroethics and the Scientific Revision of Common Sense

Springer, 2016; 169 pp.

Through eight chapters of concise written text rich with analyzes of ideas and arguments, interweaving philosophy of mind and neuroscience data, Gligorov examines the impact of expansion of research in neuroscience (as the most developing and prominent science) and the novel neuroscientific results on commonsense conceptions of morality and psychology. Gligorov takes us through the most interesting debates in the ethics of neuroscience, including research and clinical practice and application of neuroscientific knowledge (altering personality traits, memory modification affecting self, mental privacy, definition of death etc.), and the neuroscience of ethics with its focus on finding neural images and brain activity correlates with experience of pain, traits, emotions, free will and moral reasoning. Discussing brain scans attractiveness and the seductiveness of results of the neuro studies that are nowadays often presented on the edge of their applicability and simplification, the author explains the implications of inevitable incorporation of those scientific results on common conceptions of our functioning and understanding life. The author describes the ways the results consequently affect the formulation and responses of numerous ethical questions arguing that „issues in ethics of neuroscience and neuroscience of ethics depend on connection between philosophical approaches to morality and psychological capacities to reason and act morally" (p. 9). In the introductory sections of the book Gligorov reviews potential threats that new technologies may pose to the self. She discusses the perils and concerns why brain imaging and brain scans could be morally disruptive, affecting privacy, as well as their potential for other negative consequences, such as possible stigmatization of individuals with early diagnosis with brain pictures. She describes the possible consequences of pharmacological memory manipulation on personal identity with diminishing the emotional impact of trauma or, on the other

hand, possible instrumentallizing moral character by promoting appropriate moral reactions.

In the second chapter of the book, exploring the boundaries of folk morality, Gligorov gives arguments for evaluation and acknowledgment of commonsense concepts that are constantly changing due to the influence of scientific facts. Using arguments of anti-eliminativist stance that everything is empirically testable and citing chosen empirical evidence and experiments as arguments against the concept of free will, like Libet experiments in the third chapter of the book, Gligorov argues that the commonsense notion of free will should be replaced. Neuroscientific results reveal that our actions are not always the result of conscious decisions. Expansion of the scientific knowledge augments the treat of scientific determinism, yet none of the studies provide evidence against the phenomenon of free will, she concludes how concept and attributions of free will strongly depend upon background theory for judgments about the compatibility of the commonsense concept of free will and determinism.

The next two chapters deal with perils of cognitive enhancement, memory modifiers and altering cognitive abilities and their impact on changing the personal identity. The author lists potential cognitive enhancers and neuroscientific results and discusses the ways they can precipitate changes in personality at the individual level. Gligorov distinguishes numerical and narrative identity arguing how changes through cognitive enhancement are equal to other types of changes in self and though equally morally justified. According to Gligorov, the risks of cognitive enhancement exist not for numerical but for narrative identity defined as each person's story which he or she is including one's values in, personality traits and preferences. Gligorov raises ethical questions about the use of cognitive and medical enhancers, the justifications for their use in treatments, describing well a fine border between their usage in treatments and for enhancement, and exploring when such a use (of modifiers) is permissible. Gligorov discusses issues of distributive justice, the risk of identification and diagnosis of „low performers", raising concerns for the disadvantaged. She is concerned about the allocation of such medical resources and interventions, as well as their availability. The author questions the implications of possible forced use of neurocognitive enhancers for the productivity, improving memory, prolonged ability to concentrate on tasks or stay awake, or for improving academic performance etc. Gligorov argues that such neuromodifications, which have an impact on traits and self, are not a threat for psychological continuity and consistency of an identity, because the changes are incorporated into personal narrative self without disruptions in the sense of self. Analyzing the concept of privacy, she concludes that it has already been expanded to include the privacy of the information on brain function as a result of brain imaging. In chapter 5, Gligorov presents different debates on ethical

permissibility of memory-modifying technologies and uses neuroscientific results as arguments in explaining that memory is unreliable and cannot ground narrative identity. Defending an argument that memory cannot as such be fundamental to our sense of self (memory as reconstruction of our past events not a record of past) or for maintaining a sense of continuity of identity and authenticity, she thinks that natural or pharmacological changes in memory couldn't cause discontinuity of self. "The self can exist independent of the persistence of autobiographical memories." (p. 86) Authenticity cannot be determined by using objective criteria though they are changing. The characteristics of one's true self rely on a person's own estimation and personal endorsement of them, and she reckons that voluntary memory modification is likely to lead to more authentic living. One of the examples are pharmaceutical agents, such as propranol, which can promote authenticity in cases where traumatic memories are obstructing the person's ability to live an authentic life. Therefore, memory-modifying technologies cannot jeopardize personal identity, and memory enhancement does not cause discontinuity of self because narrative identity is not normative, and „narrative continuity of self is based on the person's own feeling that such continuity exists". In the sixth chapter of the book, Gligorov highlights the ethical concerns of brain imaging by explaining limitations of those techniques. The author evaluates arguments, whether mental privacy in clinical and research settings is threatened with the brain imaging technology, such as fMRI. She reviews different theoretical approaches to the nature of mental states, and uses physicalist explanations of mental states and eliminative materialism approach while explaining that fMRI does not pose a threat to mental privacy. She argues that fMRI pictures are objectified sensations and thoughts. Therefore, they are no longer private and they can provide a third-person alternative to introspection. Gligorov supports the claim that brain imaging can be used to gain information on brain function. Thus, no special protection is needed for the privacy of our brain states, because brain processes are not more private than information obtained about other body parts. Such as, protecting all private medical information about patients or research participants, for which their disclosure is similarly harmful, if we control circumstances, information routinely obtained with consent in clinical settings must be protected in the same way as well as those relating to information about mental states and brain functioning. Gligorov states that disclosure of information about patients in many ways can be stigmatizing and that is the reason why „what doctors know about a patient is not limited to only that which the patient chooses to disclose", and the "different ways of obtaining insight does not change the duties to protect the privacy". (p. 113)

In the seventh chapter Gligorov argues that the privacy of pain states is the same as the privacy of all inner states, and that pain states and first-personal pain reports are not incorrigible. While expressing the feelings of pain through the experience

of stimulus through time, there are ways of influencing and correcting them. How pain is identified and characterized depends on conceptualization of pain as well as medical settings treatment. The author reviews the philosophical approaches to pain and scientific theories of pain addressing introspectability and privacy as main obstacles to scientific explanation and corrigibility. She finds evidence in studies explaining how the individuals' ability to report having pain is tied to the individual's learning how to use the concept of pain. Thus, changes in the concept affect the experience of pain. Gligorov concludes that there are currently no accepted third person criteria to challenge first person reports of pain. Thus, utilization of objective means with brain imaging for identifying persons in pain is desirable and welcomed in the near future.

In the last chapter of the book, Gligorov explores the ways advances in medical technology and modification of theories about human functioning change, as well the ethically fraught discussion of the definition and criterion of death. According to Gligorov, body and brain dualism has to be rejected. Brain death criterion is questioned in view of the new information on the reversibility of the vegetative state. Building on the concept of death of James Bernat, Gligorov redefines the concept of integrated functioning arguing that for the functioning of the organism as a whole or for being alive, the three elements of integrated organism functioning are required: somatic integration, psychophysical integration required for processing external stimuli and behavior, and the third is integration of psychological functioning, such as memory, consciousness, emotion, learning, attention. All these three elements can be used to support brain death as criterion of the death of an organism. Implications on individuals with severe brain injury, in coma, vegetative or minimal conscious states are considered. Gligorov's intention was not to give detailed ethical analyses and review of all the implications of her thesis and conclusions, but to analytically evaluate and to give well argumented text with relevant studies and literature in defense of her thesis from the beginning of the book, which is, that commonsense moral frameworks and scientific frameworks are empirically evaluable theories. I also see Gligorov's book as an important contribution to the discussion within bioethics, primarily for building a bridge between philosophy and neuroscience, and calling for stronger connection and collaboration, for dialogue and reflection outside and beyond once own's discipline integrating the knowledge so important and relevant to the daily lives of all of us. Gligorov asserts that responsibility for integration of neuroscientific knowledge into positive, humanistic goals, such as those set by humanistic call of medicine: preserving health and curing the disease, lies within both of them.

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