

MIND ENGINEERING, HABIT, AND HUMAN NATURE

Andrii Leonov

Abstract. This paper attempts to do the following things. First, it reinterprets the notion of «mind engineering» from a more neutral standpoint and offers a totally new approach to the phenomenon. Thus, instead of looking at the phenomenon from a wholly negative perspective (such as identification of mind engineering with «brainwashing», «mind control» and other coercive and manipulatory techniques), it defines mind engineering as the process of «design/redesign, implementation/reimplementation, evaluation/reevaluation of minds». In itself, this process can be *deliberate* or *forceful*. Here, the author looks at *deliberate* mind engineering primarily.

Secondly, the «mind» is defined as a set of *beliefs*, and the latter, following Charles Peirce, is interpreted as the set of *habits*. The phenomenon of habit is interpreted *pragmatically-hermeneutically* and is defined as a «fixed» functional interpretation of *the world* and one's place in it that either works or does not work». If a specific interpretation constantly works, it constitutes a «good» habit. If it does not work, it means a «bad» habit. Unlike the current social-psychological approaches to habit as goal-independent and automatic, and therefore «mindless»/non-cognitive, the author claims that habits are essentially *goal-dependent*, and *cognitive*. The habit's main goal is to resolve the *problematic situation* that the organism is in. Habit's cognitive element is grounded in the organism's *interpretive effort* that allows it to specify a problematic situation *as* problematic. Therefore, the connection between the organism and a situation is not direct/immediate but rather is mediated via functional *interpretive meaning*. In the end, mind engineering must be taken as «habit engineering», and, thus understood, the phenomenon in question can be seen as one of the key phenomena to clarify *human nature*.

Keywords: mind engineering, belief, habit, stream of habit, habit engineering, human nature, Peirce, James, Dewey.

«When we are honest with ourselves, we acknowledge that a habit has this power because it is so intimately a part of ourselves. It has a hold upon us because we are the habit» [6, p. 21].

1 Introduction

The concept of «mind engineering» usually refers to a phenomenon that seems hard to tell whether it is a fact or a fiction. There is neither a clear and precise definition, nor even an understanding of the phenomenon. Various labels are given to it such as «brainwashing», «mind control», «coercive persuasion» etc., which clearly have only negative connotations. Mind engineering, understood in the previous senses, appears more like a political tool that is used by political regimes literally to indoctrinate their political agendas unto their opponents/citizens. But I think that «mind engineering» as a *concept* has much more to offer than it is usually assumed.

This paper aims to reinterpret the concept of mind engineering both philosophically and psychologically, and thus, offer a totally new approach to the phenomenon. Ultimately, mind-engineering is not just about politics or manipulation, but about a better understanding of *human nature*. The better we understand the former, the better light it might shed on the latter.

1.1. Reinterpretation of the concept of mind engineering

The core ideas that are defended in this paper are the following.

(1) David Chalmers [1] defines *conceptual* engineering as the «design, implementation, and evaluation of concepts». By analogy with the latter, I define *mind* engineering as the «design, implementation, and evaluation of minds».

(2) The concept of the «mind»¹ I interpret as the «set of *beliefs*»,

¹There is no precise definition of the notion of «mind». Therefore, there is some flexibility with the interpretation of the phenomenon. I think, maybe the closest to mine is that of Dewey. Thus, in the Preface to his *Human Nature and Conduct*, John Dewey defines mind «in the concrete only as a system of beliefs, desires and purposes which are formed in the interaction of biological aptitudes with a social environment» [6, p. 3].

On the one hand, both «desires» and «purposes» can be seen as *beliefs*. Thus, a proposition «I desire X» can be restated as «I *believe* I strongly want/wish X», and «I have a purpose to do X» as «This is why I *believe* that X is worth doing/getting».

while «beliefs», following Charles Peirce, are pragmatically taken as *habits*. Consequently, «mind engineering» is understood as the «design, implementation, and evaluation of *habits*» or «*habit engineering*»/habit acquiring. Since habits can be creatively newly acquired or reacquired, this allows us to extend the working definition of mind engineering accordingly: it is «the process of design/redesign, implementation/reimplementation, and evaluation/reevaluation of *habits*».

(3) The concept of a «habit» is approached *pragmatically-hermeneutically* and is understood as a «‘fixed’ functional interpretation of the world, and one’s place in it that either works or does not work». Therefore, the final definition of the concept of «mind-engineering» would be the following: *it is the process of design/redesign, implementation/reimplementation, and evaluation/reevaluation of the «fixed» functional interpretations of the world, and one’s place in it that either work or do not work.*

1.2. Consequences of reinterpreting mind engineering as «habit engineering»

From (1), (2), and (3) it seems to follow that mind/habit engineering is rather a neutral term that has the following dimensions: (a) in terms of the *process* of the habit acquiring/«engineering» and (b) in terms of its *normative significance*.

(a) In terms of the *process* of habit acquiring, mind engineering can be seen as *deliberate* or *forceful*.

Deliberate mind engineering signifies the process of normal education where learning new habits is *experimental*, and thus, is the «trial and error» process.² In other words, it is «habit-engineering» that is based on

On the other hand, since beliefs here are treated as habits, and since it is possible to reduce desires and purposes to beliefs, then both desires and purposes can be looked as *habits* accordingly. Thus, a proposition «I desire X» can be paraphrased as «I habitually strongly want/wish that X», and «I have a purpose to do X» as «I have a habitual motivation/objective to do X».

In the end, this also enables us to reduce Dewey’s definition of the mind as a «system of beliefs, desires and purposes» to just a «set of beliefs», and thus, to define the mind as a «set of habits».

² «Operations of experimentation are cases of blind trial and error which at best only succeed in *suggesting* a hypothesis to be later tried except as they are themselves directed by a hypothesis about a solution» [8, p. 492].

«The method of learning by trial and error — of learning from our mistakes — seems

the organism's/person's *own initiative* and is accompanied by at least some evidence and facts. It is when, following Dewey, ideas must be controlled by facts [3, p. 78-90].

Forceful mind/habit engineering is a process that is not based on an organism's/person's own initiative. Forceful mind engineering can also be divided into two subclasses: «strongly forceful» mind engineering and «weakly forceful» mind engineering. Both types refer to what is usually called «brainwashing» or what I would term «habitwashing». When «strongly forceful» mind engineering is openly realized against one's will and desire, «weakly forceful» mind engineering is rather characterized by various *manipulative* techniques: a victim thinks *as if* their new habits are acquired «deliberately» when this is not the case.³

(b) In terms of its *normative significance*, mind engineering is *positive* or *negative*. A «positive» mind engineering signifies the acquiring of «good» habits, while a «negative» mind engineering signifies one's acquiring «bad» habits. Due to the fact that habits in themselves are *norms*, and as such, they are also *subjects to (other) norms*, mind engineering is a *normative* enterprise in the first place.

In this paper, I primarily focus on the *deliberate* aspect of mind/habit engineering, and will largely omit its forceful elements.⁴ In terms of the mind/habit engineering's *normative significance*, my approach will be «meta». I will not aim to specify namely what habits are «good», and what habits are «bad». But I will try to understand what makes habits *normative*, and how «good» habits are being distinguished from «bad» habits in principle. Overall, a philosophy and psychology of mind engineering should be understood rather as the philosophy and psychology

to be fundamentally the same whether it is practiced by lower or by higher animals, by chimpanzees or by men of science» [21, p. 212].

³Such understanding of mind engineering is offered by Chris Shei and James Schnell in *The Routledge Handbook of Language and Mind Engineering* (forthcoming). Thus, according to Shei and Schnell, even though the notion of mind-engineering covers the idea of «brainwashing» which is traditionally understood as a «technique designed to manipulate human thought or action against the desire, will, or knowledge of the individual» the latter is no «longer tenable» because mind engineering «emphasizes the 'stealth', 'seamlessness' and 'gratification' aspects of mind work» where «the manipulator presents carefully prepared materials to the subject so that the suggested ideas or primed actions seem natural and desirable to the victim». <https://call-for-papers.sas.upenn.edu/cfp/2021/11/16/the-routledge-handbook-of-language-and-mind-engineering-call-for-chapter-proposals>

In this paper, I see the concept of mind engineering as much wider and richer in its meaning and application, than that offered by Shei and Schnell.

⁴I briefly address brainwashing/habitwashing in the section 5.5 of Part 5.

of *habit* engineering, and a better understanding of this process, as well as the function and role of habits in our lives, is the proper key to a better understanding of *human nature*.

1.3. The structure of the paper

This paper consists of five parts. In Part 1, I critically overview some current social psychological approaches to habit. In Part 2, I look at the pragmatic understanding of beliefs as habits as it is developed by Charles Pierce. In Part 3, I show William James's perspective on habit, as it is presented in Chapter IV of his 1890 *Principles*. In Part 4, I extend James's approach to habit through what I call a *pragmatic-hermeneutic* approach to the phenomenon of habit which in itself is grounded in John Dewey's functional psychology of 1896. In Part 5, I reinterpret the concept of mind engineering as «habit engineering». Here, I argue that habits are not purely automatic/«mindless», but are essentially *goal-dependent* and *cognitive*. This part is concluded with an idea that the genuine (i.e., *deliberate*) process of mind-engineering is essentially akin to what Dewey called the *denotative method/pattern of inquiry*, or what Karl Popper termed as the *hypothetic-deductive method*, and as such, is possible to be fully realized in the open/democratic societies.

Part 1. Habits and social psychology. A short literature overview

The phenomenon of habit is both a philosophical and also a social psychological phenomenon. But when it comes to the latter, the study of the phenomenon in question is mostly abandoned by the discipline [26, p. 389]. My interpretation of the phenomenon of habit is grounded in the classical pragmatic tradition, and especially in the work of William James and John Dewey. The reason for that is that both philosophers made a significant influence on the development of social psychology as a discipline, and even though James's functional psychology is indeed mentioned as a forerunner of the discipline overall, and especially in the United States [10, 22], the work of John Dewey is usually omitted from the consideration, despite his groundbreaking 1896 article «The Reflex Arc Concept in Psychology» [2, p. 96-110] where Dewey's own functional psychology was presented. The latter grounded his later philosophical and social psychological inquiries (like his 1917 essay «The Need for Social

Psychology» [4, p. 53-64], and especially his 1922 book *Human Nature and Conduct* subtitled «An Introduction to Social Psychology» [6]).⁵ Nevertheless, the origins of social psychology as a discipline officially date back to the 1930s, and especially to the 1940s [10, 22].⁶

In this paper, I bracket the question of exactly why Dewey's approach to social psychology as an inquiry into habit is forgotten, although, we can speculate that the reason for such «forgetfulness» could be that the notion of habit has not been studied by social psychologists the way it could have, because, since the very beginning, the discipline has always had a «cognitive bend» [10, p. 30], which was especially reinforced by the appearance of the cognitive social psychology/social cognition that embraced the computer functionalist/information-processing model of the mind. And given that habits are usually considered as something «mindless»/«automatic», such neglect seems to have been justified. But if Dewey is correct in saying that the study of our habits is the actual key to the whole of the discipline of social psychology [6, p. 3], then such a neglect seems at least questionable, if not more. Especially because, it is not at all clear whether habits are purely automatic processes with no cognitive element in it.

According to social psychologist Wendy Wood [26], even though «'Habit' is largely missing» from modern social and personality psychology», there are still «signs of change», and «psychology more broadly is showing a resurgence of interest in habit» [Ibid, p. 389].

How do contemporary (social) psychologists define the phenomenon of habit itself and its essential features?

Bas Verplanken [25] argues that «there are two variants of habit definitions» [Ibid, p. 3]. On the one hand, it is an «acquired/memory-based propensity» that can be found in works of the earlier psychologists like James, Dewey, and Veblen [Ibid]. On the other hand, habits are

⁵There is also an unpublished 1920 essay by Dewey titled «A Working Method in Social Psychology» [5, p. 422-29].

⁶As Ross, Lepper, and Ward [23] put it: «An ancient aphorism, as Ned Jones aptly noted, holds that social psychology is a field with a long past, but a short history. There are two major chapters in this story. The first, which marked the emergence more than a century ago of psychology, under the leadership of Wundt, Helmholtz, James, Hall, Cattell, Titchener, Brentano, Ebbinghaus, and others, as a distinct field of study, involved the shift from philosophical speculation and analysis to reliance upon data. The second, as Jones described at length, involved the emergence, just before and after WWII, under Lewin, Hovland, Sherif, Asch, Festinger, and others, of social psychology as a sub-discipline that relied on experiments in which investigators directly manipulated social and situational factors of theoretical relevance» [Ibid, p. 13].

defined as «repeated form of conduct, or simply *repeated behaviour*» [Ibid]. Verplanken unites these two approaches into one and defines habit properly as «a memory-based cognitive associative entity which includes a history of behavioural repetition» [Ibid, p. 4]. According to Verplanken, behavioral repetition distinguishes habit from other cognitive representations that underlie automatic processes such as «schemas, first impressions, norms, or attributions» [Ibid]. Overall, habit has two essential features or «pillars»: (a) «a history of behavioural repetition, and (b) «a cognitive representation of an association between cues and responses» [Ibid]. Taken together and including all the history of the psychological development, Verplanken arrives at the following definition of the phenomenon: habits are «*memory-based propensities to respond automatically to specific cues, which are acquired by the repetition of cue-specific behaviours in stable contexts*» [Ibid].

Asaf Mazar and Wendy Wood [15] define habits in the following way: they are «*cue-response associations in memory that are acquired slowly through repetition of an action in a stable circumstance*» [Ibid, p. 14]. In this paper, as well as in others (e.g., Neal, Wood and Quinn [16], Wood and Pascoe [17], Wood [26]), Wood *et al* emphasize two main features of habits, namely their *automaticity* and *goal-independence*.

Habit *automaticity* entails that our habits are automatic responses that are directly activated but the situation cue/trigger. Despite the agent's intentions, habits are activated once the specific trigger shows itself. Therefore, in our habitual actions, there are no thinking or mind/cognitive processes involved. Habits are «mindless». ⁷ Between the situation «stimulus» and the habitual behavioral «response» there seems to be nothing cognitive. Habit is a non-cognitive process essentially. And, automatic processes are likely *goal-independent* because «they can function in the absence of, or even contrary to, intentions» [15, p. 17].

It seems that the contemporary understanding of habits is grounded in the stimulus-response arc. Once there is a contextual «stimulus»,

⁷For example, in the 1970s habits were likely to be understood as the «mental representations» or «scripts» of the «well-learned routines» (conceived as behaviors that «typically occur in various situations»). Thus, «Activation of such a representation can guide behavior in that situation without a person consciously attending to either the stimulus that triggered the representation or the reasons for enacting the behaviors. Such behaviors are, then, 'mindless'» [10, p. 27].

Even though, social cognition is now considered as an «automatic-controlled continuum» where there is nothing «purely automatic»/non-cognitive, nor «purely controlled»/cognitive but rather as a mixture of the two [Ibid, p. 29], habit automaticity itself is still understood as a non-cognitive/mindless process.

there comes an immediate behavioral «response». And thus, there is a direct dependence of the latter on the former. Such an approach was heavily criticized by John Dewey in his 1896 article «The Reflex Arc Concept in Psychology» [2, p.96-110], where he showed that there is no such stimulus-response arc because such an understanding is still a heritage of the religiously driven mind-body dualism. Instead, the stimulus-response schema presents itself more like a loop that is grounded in the organism's *sensorimotor circuit*. Elsewhere,⁸ I show that both «stimulus» and «response» are more likely to be *interpretations* of the *functional* kind that are grounded in the organism's *interpretive effort*. It means that the connection between a context/situation's cue/trigger and a behavioral response is not direct/immediate but rather *indirect/mediate*. And what it is mediated with is a functional *interpretive meaning*.

In fact, I will argue that even though habits appear as «automatic», they are still *cognitive*, and therefore, not «mindless». Habit-automaticity does not entail its mindlessness as it is usually perceived. Habits are not goal-independent but rather *goal-oriented/dependent*: the main goal of habit-formation is to resolve problematic situations that the organism is dealing with. Therefore, habits should be paid more attention in the social psychology, and in cognitive social psychology/social cognition, in particular.

Part 2. Charles Peirce on belief as a habit

My short introduction to Peirce's view on beliefs-as-habits will be based on his famous articles «The Fixation of Belief» [18, p. 5-22], and «How to Make Our Ideas Clear» [19, p. 23-41].

2.1. The Fixation of Belief (1877)

The goal of this paper is to clarify how we actually form and fix our beliefs, as well as «to describe the method of scientific investigation» [18, p. 19]. The thesis of the paper is to show that belief is essentially a *habit*, and that the best method to form a proper habit, and therefore a belief, is that of science. Thus, generally there are two «states of mind»: *doubt* and *belief*.

According to Peirce, «doubt is an uneasy and dissatisfied state from which we struggle to free ourselves and to pass into the state of belief» [18,

⁸See: [14].

p. 10]. The state of belief, on the other hand, is «a calm and satisfactory state which we do not wish to avoid or to change to a belief in anything else. On the contrary, we cling tenaciously, not merely to believing, but to believing just what we do believe» [Ibid]. For Peirce, both belief and doubt play rather positive roles for us. On the one hand, belief «puts us into such a condition that we shall behave in some certain way, when the occasion arises» [Ibid]. When it comes to doubt, the latter «stimulates us to inquiry until it is destroyed» [Ibid]. Therefore, it is only «the irritation of doubt [that] causes a struggle to attain a state of belief». And this very «struggle» Peirce calls «*Inquiry*». One has to mention that «irritation of doubt is the only immediate motive for the struggle to attain belief», while «the sole object of inquiry is the settlement of opinion» [Ibid]. To sum up, our main goal is to overcome doubt and attain a belief/habit. The latter is the consequence and the guiding principle of a doubtful situation (or the «irritation of doubt»). Our habits, which are essentially «opinions», help us eliminate doubt and stabilize the situation which appeared doubtful/problematic. Such stabilization is called «inquiry».

2.2. How to Make Our Ideas Clear (1878)

The title of the paper reflects the goal of the paper, while the thesis aims to prove that the only way to clear any idea properly is to look at the practical consequences that follow from its application. Thus, Peirce formulates the famous Pragmatic maxim:

Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object [19, p. 31].

What do practical bearings/consequences actually *mean*? For Peirce, the latter refer specifically to *habits*: «the whole function of thought is to produce habits of action» because «to develop its meaning, we have, therefore, simply to determine what habits it produces, for what a thing means is simply what habits it involves» [19, p. 30].

If belief is essentially a *habit*, then what is habit in itself? In Part 3 and Part 4, I am looking at the *functional psychology* of William James and John Dewey to find that out.

Part 3. Origins of the pragmatic understanding of habit: functional psychology of William James (1890)

William James starts Chapter IV in his seminal *Principles of Psychology* [9] as follows, «When we look at living creatures from an outward point of view, one of the first things that strike us is that they are bundles of habits» [Ibid, p.104]. At the end of the same chapter, James proceeds with the same spirit, «Could the young but realize how soon they will become mere walking bundles of habits, they would give more heed to their conduct while in the plastic state» [Ibid, p.127]. This last quote seems to be both optimistic and pessimistic at the same time.

On the one hand, it is implied that we have a «plastic state» that enables us to change. On the other hand, this state is also «time-limited»: the changes can occur only for a certain period of time. Thus, our *personal* habits can be «fixed» only before we are twenty. Our *intellectual and professional* habits can be acquired only between the age of twenty and thirty, because after the age of thirty it will be likely impossible [Ibid, p. 121-122]. Therefore, in order not to miss such a window of possibilities we «*must make automatic and habitual, as early as possible, as many useful actions as we can*» [Ibid, p. 124]. The latter constitutes what James calls the «*ethical implications of the law of habit*» [Ibid, p. 120]. Now, the quest is to clarify the *meaning* of the notion of «habit» itself. What is «*habit?*»

In what follows, I descriptively lay out James's own perspective on the phenomenon. I am specifically looking at the underlying mechanism of habit, and its function (i.e., what it *does*). James seems not to have provided any direct «philosophical» definition of habit, and thus, in section 3.5, I attempt to reconstruct it as well.

3.1. William James's description of habit

In Chapter IV of his *Principles of Psychology*, William James attempts fundamentally to describe the phenomenon, as well as to specify its essential features. As we saw, James begins the chapter with the general statement that «all living creatures» are «the bundles of habits» [Ibid, p. 104]. In wild animals, the majority of them are active from birth, and present themselves as *instincts*. In domesticated animals, and especially in humans, many of the habits (including some of the instincts) are usually acquired through *education*. And some of these would be called «acts of reason». In anyway, habits constitute a huge part of our lives, and therefore they should be clarified in the first place. From the very beginning, James does not give a precise definition of what a habit actually *is*. He rather

starts with what it is *due*. Or, in other words, what makes the emergence of the phenomenon *possible*.

3.2. What makes habits possible?

For James, even the laws of nature are nothing but «immutable habits». When the habits of nature are «immutable», the habits of living organisms are «mutable». Thus, the line of the difference between the habits of nature and those of the living creatures lies in the latter's ability to change or «plasticity». The latter, according to James, «in the wide sense of the word, means the possession of a structure weak enough to yield to an influence, but strong enough not to yield all at once. Each relatively stable phase of equilibrium in such a structure is marked by what we may call a new set of habits» [Ibid, p.105]. The organic matter (especially the nervous tissue) has the «extraordinary degree of plasticity». Therefore, what makes the phenomenon of habit in the living organisms possible is due to the «*plasticity of the organic materials of which their bodies are composed*» [Ibid]. It especially includes the «brain-matter» and the «spinal cord» [Ibid, p.107]. Following that, James confesses that the «philosophy of habit is thus, in the first instance, a chapter in physics rather than in physiology or psychology» [Ibid, p.105].

3.3. The function of habit, or what it does

The function of habit is grounded in its «philosophy» from which one can specify a particular law or the «law of habit». The latter James understands as the following principle: «our nervous system grows to the modes in which it has been exercised» [Ibid, p.112]. According to James, we can specify the following habit functions.

- (1) «*Habit simplifies the movements required to achieve a given result, makes them more accurate and diminishes fatigue*» [Ibid]. As James also puts it, «man is born with a tendency to do more things» than the capacity of his «nerve-centres» allows. The majority of actions in animals are automatic, but when it comes to a man, the «number of them is so enormous that most of them must be the fruit of painful studies» [Ibid, p.213]. The moral is that habits make one's life less painful.
- (2) «*Habit diminishes the conscious attention with which our acts are performed*» [Ibid, p.114]. In our voluntary actions, e.g., when we

learn something, our actions are made through trial and error. In such process, «we interrupt ourselves at every step by unnecessary movements and false notes» [Ibid]. But when they are «proficient», our activities require «the very minimum of muscular action requisite to bring them forth, they also follow from a single instantaneous ‘cue’» [Ibid].

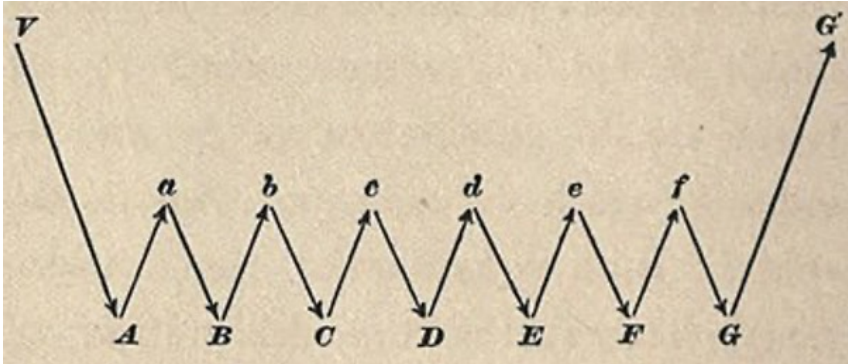
3.4. The mechanism of habit as a «sensorimotor zigzag»

According to James,

In action grown habitual, what instigates each new muscular contraction to take place in its appointed order is not through a thought or a perception, but the *sensation occasioned by the muscular contraction just finished* [Ibid, p. 115].

«A strictly voluntary act» is solely guided by an «idea, perception, and volition», but when it comes to the habitual action «the mere sensation is a sufficient guide» [Ibid].

The diagram below represents the mechanism of habit.



«V» symbolizes the «command to *start*». The latter can be a thought, or a «mere perception», etc. «Symbols «A», «B», «C», «D», «E», «F», «G» signify «an habitual chain of muscular contractions». And the «G'» represents the «intellectual perception» which is the effect of G. Symbols «a», «b», «c», «d», «e», «f» represent the «sensations» that the former muscular contractions «excite». [Ibid, p. 116-117].

It is interesting that, on the one hand, James claims that the sensations are «*occasioned by the muscular contractions just finished*» [Ibid, p. 115],

while on the other hand, he calls «a», «b», «c», «d», «e», «f» the «*antecedents* of the successive muscular attractions» [my emphasis] [Ibid, p.117] which in themselves are «immediate» [Ibid, p.118], and as such are accompanied by the consciousness of some sort that is «*usually inattentive*» and which comes to our attention if sensations go wrong.

The above-shown diagram suggests labeling the mechanism of habit as the «*sensorimotor zigzag*». But the description of the mechanism is not clear. On the one hand, James seems to be trapped in the psychological fallacy that Dewey would later label the «reflex arc concept» that is predicated on the idea that the motor «response» is always preceded by the sensory «stimulus».

On the other hand, it also seems that James is not very much consistent in that, he says that the sensations are «*occasioned by the muscular contractions just finished*» which suggests that it is the motor response that comes first. It is also possible that, such inconsistency can be interpreted as the «proto state» of what Dewey would later call the «sensorimotor circuit».

3.5. What is habit?

Even though James himself tends to define the phenomenon of habit reductively (i.e., as a plasticity of the organic matter, and especially that of the brain and the spinal cord), one can still find a more «philosophical» understanding of the phenomenon in the chapter. It can be found when James is linking the following phenomena: that of the «habit» with those of the «character», and of the «will».⁹ Thus, «a character is a completely fashioned will» [Ibid, p.125]. The latter James interprets as «an aggregate of tendencies to act in a firm and prompt and definite way upon all the principal emergencies of life» [Ibid]. And, that «tendency to act only becomes effectively ingrained in us in proportion to the uninterrupted frequency with which the actions actually occur, and the brain ‘grows’ to their use» [Ibid].

Here, the phenomenon of habit is not being reductively explained, but rather there is something else that corresponds to when the «brain ‘grows’». One can see that this «something else» is a «tendency to act» that is characterized by its being «firm», «prompt», and exercised in a «definite way». Another feature of this action is to be «frequent», and «uninterrupted». I think that this is a real «philosophical» definition of

⁹James borrows his understanding of the last two phenomena from J.S. Mill.

the phenomenon of habit that one can find in the analyzed chapter 4 of James's *Principles*.

In other words, habit is one's *constant disposition/inclination to act*. What is the origin of such a disposition? In the next part, I argue that such a constant disposition/«tendency» to act is essentially *pragmatic-hermeneutic* in its origin.

Part 4. A pragmatic-hermeneutic approach to the phenomenon of habit

In this part, I extend James's approach to the phenomenon of habit from what I would call the «pragmatic-hermeneutic approach». In what follows, I am arguing that (1) the phenomenon of habit should be seen as a «fixed» functional interpretation *of the world* and one's place *in* it that either works or does not work», which in itself constitutes whether this or that habit is a «good» habit or a «bad» one. (2) Habits are essentially *normative*, and their normativity is «two-dimensional»: habits are *norms*, and, as such, they are *subjects to (other) norms*.

4.1. Dewey's functional psychology of 1896

One can say that our relation to the world is essentially grounded in our sensorimotor activity which in itself is grounded in what John Dewey [2] called the *sensorimotor circuit*. The core idea is that «stimuli» (understood as «sensations») and «responses» (conceived as «motor movements») do *not* form the «arc» in which the stimulus always comes first, and the response always comes second, but that the relation between them should be reinterpreted rather as a *circuit*. Thus, in this sense, it can be that the response/movement comes «first», and the stimulus/sensation comes «second». The stimulus is interpreted *as* «stimulus» only within the movement/response. Thus, stimulus and response are *functional parts* of the *functional whole* of the sensorimotor circuit. In [14], I show that in his groundbreaking article, Dewey suggests that both stimulus and response are basically *functional interpretations*. An organism *interprets* a sensory stimulus *as* «stimulus», and the movement/response *as* «response» in terms of their *functional roles* in resolving the problematic situation that the organism is dealing with. Therefore, my claim is that an organism always makes an *interpretive effort* to recognize these functional parts of the functional whole of the sensorimotor circuit.

What was the «stimulus» in one situation can become a «response» in the other situation, and vice versa. This allows us to reinterpret Dewey's «immediate empiricism» as rather the «hermeneutic empiricism», the motto of which, instead of the classical «things are what they are experienced as», would be rather «things are what they are interpreted as»/«things are experienced what they are interpreted as» [Ibid]. Therefore, we always start with interpretations, and end with interpretations. Now, how does this fit into the discussion of habit?

4.2. A habit is a «fixed» functional interpretation that either works or does not work

Generally speaking, there are two kinds of habits. «Good» habits and «bad» habits. What constitutes this or that habit *as* a «good» habit, and what constitutes this or that habit *as* a «bad» habit? First, I think that habit is a «good» one if it is *interpreted* as a «good» habit. And similarly, a habit is seen as a «bad» habit, if it is *interpreted* as a «bad» habit. The «as» part here refers to the *meaning* that is grounded in one's *interpretation* of the event, or in other words, the *interpretive meaning*. If good/bad habits are interpretations, then what differentiates a «good» interpretation from a «bad» interpretation?

First, by a «good» interpretation I mean what can be called as the «correct»/«true» interpretation, and by the «bad» interpretation I understand the «incorrect»/«false» interpretation. What is the main difference between them? What makes the difference here is whether this or that interpretation actually *works*. Pragmatically speaking, for an interpretation to «work» would mean to correspond to the «facts» of the present situation. That is, an interpretation works if (i) it successfully/«correctly» *identifies* the problematic/unstable situation *as* problematic/unstable one; and (ii) if it helps successfully to *resolve* such a situation into a nonproblematic/stable one respectively.

A «good» habit presents itself as a «fixed» *functional interpretation* that actually works. Through repetitive installment and practicing, it was eventually determined that this particular way of an organism's interaction with the environment resolves the problematic and unstable situation into the unproblematic and stable one, and that is how it becomes «automatic». By analogy, a «bad» habit is grounded in the organism's specific interpretation that does *not* work. Such an interpretation usually only *seems* to work (like the habit of smoking) when it does not in fact. In other words, it is largely an illusion/delusion that every time when the

habit in question is being activated, the problem has been *interpreted as* «solved», while in reality, it has been *not*.

Therefore, habits are «fixed» functional interpretations that either work or do not work, which determines whether the habits in question are «good» or «bad».

4.3. Habit and normativity

As we saw, in his *Principles*, James advises acquiring as many good habits and getting rid of as many bad habits as possible, and as early as possible. Why is that so? It is because good habits will eventually and necessarily help a person to *succeed* in his life, while bad habits would rather lead one to *failure*. Thus, habits in themselves are standards for success or failure, and therefore, are essentially *normative*. Let's explore this dimension a bit more.

4.3.1. Two-dimensional normativity of habits

The two-dimensional normative functioning of habits can be seen in this way. What is meant by «norm» here is some specific «fixed» functional interpretation that is a standard for *success* (in case of a habit being «good») or *failure* (in case of a habit being «bad»). Habits are *norms*, and as such, they are also *subjects to other norms*.

Let the phenomenon of «smoking cigarettes» be our example. Among a group of teenagers smoking cigarettes is usually considered as «cool». Thus, persons who smoke are «cool», and the ones who do not, are «not cool». But when a teenager encounters a social situation where such behavior is prohibited, the normative habit of his group («smoking is 'cool'») becomes a *subject to the norms* of that social situation. For example, this teenager comes to a café where smoking is not allowed. If smoking is a standard for «success» (e.g., respect and admiration) within a close circle of his friends, it is a standard for «failure» when it comes to such a person's visiting a café that has a rule, expressed by a sign «No smoking» (such «failure», e.g., would be expressed in a possibility to be kicked out from there, etc.).

4.4. Mind engineering is culture engineering

Finally, how does the said above help us understand ourselves better? According to James, living organisms are basically «bundles of habits». We, as human beings, are cultural beings. But what is «culture»? According to

Merriam-Webster Dictionary, culture is (1) «the beliefs, customs, arts, etc., of a particular society, group, place, or time», (2) «a particular society that has its own beliefs, ways of life, art, etc».¹⁰ The keywords here are «beliefs» and «customs». One can say that «culture» is a *set of beliefs/customs*. Earlier, we identified belief as a habit. Also, it will not be a mistake to say that a «custom» is essentially a *habit* as well. Therefore, culture is a set of habits.

It seems that both «mind» and «culture» have the same predicate, i.e., a «set of habits». This suggests not only that mind is culture but shows that *mind engineering* is also «*culture engineering*».

What role do cultural habits play in a person's life? I think that essentially culture helps one interpret the *world* and find one's place *in* it. Thus, we can also extend our definition of habits as «fixed» functional interpretations *of the world*, and one's place *in* it that either work (good habits) or do not work (bad habits). Therefore, mind/culture is a set of «fixed» functional interpretations *of the world* and one's place *in* it that either work («good» mind/culture) or do not work («bad» mind/culture).

In the end, studying our habits, and those of others is the key to understanding ourselves, others, and our mutual relationship in and with the world. As Dewey wrote in his *Human Nature and Conduct*, «Man is a creature of habit, not of reason nor yet of instinct» [6, p. 88].

Part 5. Reinterpretation of mind engineering as habit engineering

Let's go back to our initial definition of mind engineering. Earlier, I defined it as a process of the «design/redesign, implementation/reimplementation and evaluation/reevaluation of minds». Since the mind is considered a «set of habits», then mind engineering is happily transformed into *habit engineering*. Now, how does that very process of habit engineering take place overall?

5.1. A stream of habit

In his *Principles*, William James claimed that when it comes to our consciousness, it is like a «stream» which leads to his famous metaphor «stream of consciousness». I want to borrow James's expression where instead of «consciousness» I will use «habit». The outcome is a «stream

¹⁰<https://www.merriam-webster.com/dictionary/culture>

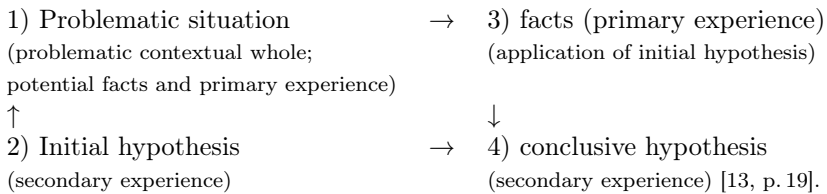
of habit».

When an organism is in its «peace of mind», its habits are still and not interrupted. That is where the organism's routine is stable and continuous. An organism and the contextual whole of a situation that it is in seem to be inseparable. That is where things «work», and its equilibrium is stable, and its habits are «fixed». A problem arises when the contextual whole of a situation becomes *problematic*. How does the latter occur? According to Dewey, it is when «*something* happens» [7, p.13]. When it does the organism's «fixed» functional interpretations of the world are shaken and, as a result, its «stream of habit» is violated. I think, this signifies the exact start of mind/habit-engineering to take place.

5.2. Deliberate mind engineering and pragmatic method

I think that, overall, deliberate mind/habit engineering corresponds to what Dewey called a *denotative method* [7]/*pattern of inquiry*[8], or what Karl Popper called a *hypothetic-deductive* method.¹¹

Thus, the process of deliberate mind/habit engineering can be portrayed in the following way:



Let's look at this scheme closer.

The *problematic situation* comes first. In order to distinguish facts from it, we need initial hypothesis. After testing it, we come up with the conclusive hypothesis and identify facts as facts. Namely, with the application of the secondary experience, we identify primary experience as *primary* (i.e., what led us to the secondary experience). But if there was no secondary experience before, there would be no possibility to identify the primary experience as such [Ibid, p. 19].

In [14], I have suggested that what Dewey called «primary experience» and «secondary experience» in themselves are *functional interpretations* that are grounded in the organism's *interpretive effort* of the contextual whole

¹¹In [13] I show that both Dewey's and Popper's methods are basically the same, and thus, here I will treat them as such as well.

of a situation that is problematic. From this, it should become clearer what I mean by «design», «implementation», and «evaluation» of habits.

5.3. Essential structure of deliberate mind/habit engineering

When it comes to deliberate mind/habit engineering we have the following constituents: (1) problematic situation, (2) design/redesign, (3) implementation/reimplementation, (4) evaluation/revaluation. We have already shared an understanding of (1), and so, now we can jump to the clarification of its other constituents.

Thus, by «design», I understand a *very interpretation/hypothesis formation* that arises out of one's *interpretive effort* which in itself is an act that is grounded in the organism's *sensorimotor circuit*. The «design» is a process of interpretation/hypothesis-forming where an organism interprets a problem *as* a problem, and develops a further interpretation (hypothesis) to actually «fix» it.

By «implementation» then is meant nothing but an *experiment*, or a hypothesis-testing. That is a process when this or that hypothesis/interpretation that is about to solve/fix the very problem is being tested.

«Evaluation» refers to the end-result of the hypothesis-testing. That is, if a hypothesis/interpretation *works* (i.e., if it correctly identifies the problem and successfully constantly resolves/fixes it), then it essentially becomes a «good» habit. And, if it does *not work* (e.g., if it just *seems* to resolve the problematic situation when it does not in fact), then such a hypothesis/interpretation is a candidate for becoming a «bad» habit respectively.

The prefix «re» applies in all cases when there is a need either to «redesign», or to «reform» a specific interpretation of the problematic situation (in case the facts have changed), and then to «reimplement»/retest such an interpretation/hypothesis experimentally through what Dewey would call «doing and making», and Popper signified as «trial and error» process, and, in the end, to «reevaluate» the outcome whether it works or not. When it does, such an interpretation becomes «fixed» and successfully enacts one's relation to the world and their place in it. If not, the process of such «engineering» needs to be repeated.

Therefore, the process of deliberate mind engineering can be summarized in the following way.

- (1) *Problematic situation*: when something happens and our «stream of habit» is broken.

- (2) *Design/Redesign*: hypothesis-formation/reformation (interpreting/reinterpreting the problem *as a problem*).
- (3) *Implementation/Reimplementation*: experimental testing/retesting hypotheses (as habit-candidates).
- (4) *Evaluation/Reevaluation* of hypotheses/interpretations as to whether they work (i.e., correctly identify and successfully resolve a problematic situation) or not. Reevaluation of a habit leads either to its redesign and reimplementation, or its further elimination and coming up with a better one instead.

5.4. Are habits cognitive?

As we saw earlier,¹² in social psychology habits are usually understood as mindless/automatic processes. But if our mind is essentially a set of habits, and our habits are «mindless» then it would lead to a conclusion that our «mind is mindless», and that we are «mindless creatures», or basically «zombies», which would simply be absurd. Therefore, there is either a problem with the very definition of the mind as it has been employed here, or there is a real problem with the understanding of habit as a mindless process. I think that it is rather the latter. Indeed, if the mind is a set of habits, and habits are essentially «fixed» functional interpretations of the world that are grounded in an organism's *interpretive effort*, then it would seem to imply that habits are not just purely automatic but *cognitive* as well. But how cognitive? What is «cognitive»?

5.4.1. Cognition: ordinary definition vs. scientific definition

Merriam-Webster primarily defines cognitive as «of, relating to, being, or involving conscious intellectual activity (such as thinking, reasoning, or remembering)».¹³ *Cambridge Dictionary* refers to cognitive as «connected with thinking or conscious mental processes».¹⁴ *Collins* defines cognitive as «relating to the mental process involved in knowing, learning, and understanding things».¹⁵

APA defines cognition as «all forms of knowing and awareness, such as perceiving, conceiving, remembering, reasoning, judging, imagining, and

¹²See Part 1 of the paper.

¹³<https://www.merriam-webster.com/dictionary/cognitive>.

¹⁴<https://dictionary.cambridge.org/us/dictionary/english/cognitive>.

¹⁵<https://www.collinsdictionary.com/us/dictionary/english/cognitive>.

problem solving. Along with affect and conation, it is one of the three traditionally identified components of mind». ¹⁶

It seems that both the ordinary and scientific definitions of cognitive appeal to it as mainly an *intellectual* activity.

In [14] I made a distinction between two kinds of cognitive: «weakly» cognitive and «strongly» cognitive. The former refers to the *interpretive effort* of the organism that is grounded in its sensorimotor circuit. The «strongly» cognitive means an *intellectual activity*. Thus, it seems that the definitions of *cognitive* as shown above are primarily reductive because they narrow down its meaning only to the «strong» sense of the cognitive while leaving the «weak» sense of it out of the picture.

Habits are «fixed» functional interpretations. The latter (i.e., interpretations) in themselves can be both «weakly» and «strongly» cognitive. Therefore, we can also extend the cognitive meaning of habits to two. On the one hand, habits are «weakly» cognitive simply because even in our ordinary routine we make an interpretive effort. Thus, when we make and then drink our morning coffee, we have to interpret a coffeemaker *as* a coffeemaker, and a coffee cup *as* a coffee cup. There is nothing much intellectual about such routine but despite that we still have habitually but *interpret*, and therefore, *cognize* the above-mentioned things as to what they are. If, say, we suddenly started to interpret a table not as a table but as a coffeemaker, our morning coffee-drinking routine would have failed.

But when dealing with intellectual activities, it is possible to say that we have our *intellectual habits* as well. Thus, when working on some logical proofs, we, say, have habitually to apply *modus ponens* and/or *modus tollens* rules of inferences. To be successful in this kind of activity, it would be a mistake to affirm the consequent in case of *modus ponens*, and to deny the antecedent in case of *modus tollens*. For a logic practitioner, such routine would be habitual (because it would be a constant pain to learn it anew every time, say, by analogy with the protagonist from *Memento*). Nevertheless, even if such a process is habitual (i.e., «automatic»), it still does not cease to be *intellectual*. Therefore, habits are not just «mindless» (i.e., non-cognitive) automatic processes. In fact, they are essentially cognitive in both «weak» and «strong» senses of the word (depending on the situation). Therefore, the automaticity of habits does not entail their mindlessness or their being non-cognitive.

¹⁶<https://dictionary.apa.org/cognition>.

5.5. Mind engineering and social organization

It seems clear that deliberate mind-engineering requires an agent-environment *interaction*. It is not just one way but essentially a two-way street. To experimentally test one's interpretations/hypotheses one necessarily needs a *feedback loop* with the environment. It is simply impossible to really check whether this or that hypothesis works, if there is no testing or checking.

This suggests that when it comes to the phenomenon of forceful mind engineering or «brainwashing», the situation is totally different. Since by mind engineering, we mean essentially *habit* engineering, then «brainwashing»/forceful mind engineering can be described as a *habitwashing* respectively.

How can we explain the phenomenon of forceful mind engineering or «brainwashing?» What are its essential features?

Kathleen Taylor [24] defines brainwashing as a «dream of controlling other people's beliefs and behaviour so effectively that they do not feel manipulated—as if the imposed beliefs were their own» [Ibid, p.viii] that she reduces to three kinds, «by force, by stealth, and by direct brain manipulation technologies» [Ibid, p.xiii]¹⁷ as well as specifies the following essential features that constitute the phenomenon: isolation, control, uncertainty, repetition and emotional manipulation.

Thus, she writes:

The aim is to isolate victims from their previous environment; control what they perceive, think, and do; increase uncertainty about previous beliefs; instil new beliefs by repetition; and employ positive and negative emotions to weaken former beliefs and strengthen new ones (Collectively, these

¹⁷Overall, it seems that what Taylor calls «brainwashing» seems to be correspondent to what I call «forceful mind engineering». Thus, what she calls brainwashing «by stealth» would refer to what I call «weakly forceful mind-engineering», and what she calls brainwashing «by force» would mean «strongly forceful mind-engineering». When it comes to brainwashing by «direct brain manipulation technologies», it does appear that such manipulation would be of a forceful kind. However, although Taylor claims that such a procedure «now seems less of a theoretical prospect, more of an achievable hope» [Ibid, p.xvi], I think that at this point, such procedure still appears more like a science fiction.

Another problem with this approach is that it seems to presuppose the mind-brain identity which in itself is rather a *metaphysical* statement than purely an empirical/scientific one. That a direct manipulation with the brain would cause a direct change to the mind, I think, is indeed true but to some extent. E.g., a direct damage to the brain, can and probably will definitely (more likely negatively) affect the mind. But, pragmatically speaking, to change one's «specific beliefs and desires» would also require make some changes in one's *body* and as well as in one's *environment*.

can be labelled 'ICURE' techniques.) In brainwashing by force, ICURE techniques are taken to the coercive extremes found in some cults and terrorist organisations» [Ibid, p. xiii].

This suggests that what we termed as *deliberate* mind-engineering can essentially be realized largely in free, open or democratic societies. It is important to notice that both Dewey and Popper were theoreticians of democracies and were direct critics and opponents of autocracies and totalitarianisms. According to Dewey, the essence of democracy is what one can call a *participatory democracy* [2, p. xx], [5, p. xxiv], where «democracy was not only a political form of government but a way of life» [5, p. xxiv]. In such a system there is indeed an above-mentioned agent-environment «feedback loop». An «agent» in this case is an ordinary citizen or the powers that be while their «environment» is a society that they are part of. Therefore, on a social scale, the essential condition for the genuine (i.e., deliberate) mind-engineering is a democratic system of government and social organization where there is both a top-to-down (i.e., powers that be → citizens) and a down-to-top (i.e., citizens → powers that be) transaction. This represents the normal state of democratic affairs as well as the natural (i.e., experimental) way to «fix» one's interpretations *of the world* and one's place *in it* (i.e., a natural way to make habits). Such a «fixation» is essentially a *fallibilist* one, i.e., the one that is able to be criticized and disproved at any moment when the facts suggest so. As Charles Peirce put it, «The best that can be done is to supply a hypothesis, not devoid of all likelihood, in the general line of growth of scientific ideas, and capable of being verified or refuted by future observers», because «the first step toward finding out is to acknowledge you do not satisfactorily know already» [20, p. 2, 4].

When it comes to forceful mind engineering (habitwashing/brainwashing), there is no agent-environment feedback loop. Such a process mostly takes place in the societies whose ideologies, and the societal organizations are those of an authoritarian or a totalitarian kind. In such regimes, the most likely way for mind engineering is that of a *forceful* kind which leads only to degradation, decay, ignorance, self-destruction, and death.

Acknowledgements

I am grateful to Yueh-Ting Lee, Kenneth Stickers, Matthew Brown, Yaroslav Shramko, David Gray, and Olga Dubey for the great comments and discussion. My thanks also go to Aynur Charkasova for the editorial support.

References

1. *Chalmers D.J.* What is conceptual engineering and what should it be? *Inquiry*. 2020. DOI: 10.1080/0020174X.2020.1817141
2. *Dewey J.* The Reflex Arc Concept in Psychology. *The Early Works*. Vol. 5. Edwardsville and Carbondale: Southern Illinois University Press, 1896/2008. P. 96-110.
3. *Dewey J.* The Control of Ideas by Facts. *The Middle Works of John Dewey, 1899-1924*. Vol. 4: 1907-1909, Essays, Moral Principles in Education. Edwardsville and Carbondale: Southern Illinois University Press, 1907/2008. P. 78-90.
4. *Dewey J.* The Need for Social Psychology. *The Middle Works of John Dewey, 1899-1924*. Vol. 10: 1916-1917, Essays. Edwardsville and Carbondale: Southern Illinois University Press, 1917/2008. P. 53-64.
5. *Dewey J.* A Working Method in Social Psychology. *The Later Works of John Dewey, 1925-1953*. Vol. 17: 1885-1953, Essays, Unpublished Writings. Edwardsville and Carbondale: Southern Illinois University Press, 1920/2008. P. 422-429.
6. *Dewey J.* Human Nature and Conduct. *The Middle Works, 1899-1924*. Vol. 14. Edwardsville and Carbondale: Southern Illinois University Press, 1922/2008.
7. *Dewey J.* Experience and Nature. Edwardsville and Carbondale: Southern Illinois University Press, 1925/2008.
8. *Dewey J.* Logic: The Theory of Inquiry. *The Later Works, 1925-1953*. Vol. 12, Edwardsville and Carbondale: Southern Illinois University Press, 1938/2008.
9. *James W.* The Principles of Psychology. Vol. 1. Dover Publications, 1890/1950.
10. *Hamilton D.L., Carlston D.E.* The Emergence of Social Cognition. *The Oxford handbook of social cognition*. Oxford: Oxford University Press, 2013. P. 16-32.
11. *Hook S.* Introduction: The Relevance of John Dewey's Thought. *The Later Works of John Dewey, 1925-1953*. Vol. 17: 1885-1953, Essays.

Edwardsville and Carbondale : Southern Illinois University Press, xvii-xxxiv, 2008.

12. Kurtz P. Introduction. II. Political and Social Philosophy. The Sources of a Science Education, Individualism, Old and New, and Construction and Criticism. *The Later Works of John Dewey, 1925-1953*. Vol. 5: 1929-1930, Essays. Edwardsville and Carbondale : Southern Illinois University Press, xi-xxxii, 2008.
13. Leonov A. Instrumentalist logic of scientific discovery: reflections on Dewey's method and its metaphysical foundations. *Actual Problems of Mind. Philosophy Journal*. 2020. Vol. 21. P.3-23.
14. Leonov A. Dewey's Denotative Method: A Critical Approach. *European Journal of Pragmatism and American Philosophy* [Online]. 2022. XIV-1. DOI: <https://doi.org/10.4000/ejppap.2735>
15. Mazar A., Wood W. Defining Habit in Psychology. The Psychology of Habit. *Theory, Mechanisms, Change, and Contexts*. Springer, 2018. P. 13-29.
16. Neal D.T., Wood W., Quinn M.J. Habits — Repeated Performance. *Current Directions in Psychological Science*. 2006. Vol. 15(4). P. 198-202.
17. Pascoe A.M., Wood W. Habits. *Encyclopedia of Social Psychology*. SAGE Publications, Inc., 2007. P. 407-409.
18. Peirce C. The Fixation of Belief. *Philosophical Writings of Peirce. Selected and edited with an Introduction by Justus Buchler, 1877/1950*. P. 5-22.
19. Peirce C. How to Make Our Ideas Clear. *Philosophical Writings of Peirce, 1878/1950*. P. 23-41.
20. Peirce C. Concerning the Author. *Philosophical Writings of Peirce, 1897/1950*. P. 1-4.
21. Popper K. Conjectures and Refutations. The Growth of Scientific Knowledge. New York, London : Basic Books, 1962.
22. Reis H.T. How We Got Here from There: A Brief History of Social Psychology. *Advanced Social Psychology the State of the Science*. Oxford : Oxford University Press, 2010. P. 25-60.

23. Ross L., Lepper M., Ward A. History of Social Psychology: Insights, Challenges, and Contributions to Theory and Application. Handbook of Social Psychology. 5th Edition. Vol. 1. Hoboken, New Jersey: Kohn Wiley & Sons, Inc., 2010. P. 3-50.
24. Taylor K. Brainwashing. The Science of Thought Control. Oxford University Press, 2017.
25. Verplanken B. Introduction. The Psychology of Habit, in The Psychology of Habit. Theory, Mechanisms, Change, and Contexts. Springer, 2018. P. 1-10.
26. Wood W. Habit in Personality and Social Psychology. *Personality and Social Psychology Review*. 2017. Vol. 21(4). P. 389-403.

ІНЖЕНЕРІЯ УМА, ЗВИЧКА ТА ЛЮДСЬКА ПРИРОДА

Андрій Леонов

Анотація. У цій статті зроблена спроба дослідити наступне. По-перше, автор переосмислює поняття «інженерії ума» з більш нейтральної точки зору та пропонує повністю новий підхід до цього феномену. Таким чином, замість погляду на цей феномен з суто негативної точки зору (наприклад, ототожнення інженерії ума з «промиванням мізків», «контролем розуму» та іншими примусовими та маніпулятивними техніками), автор визначає інженерію ума як процес «проектування/перепроєктування, впровадження/повторного впровадження, оцінки/переоцінки ума». Сам по собі цей процес може бути *добровільним* або *примусовим*. Тут автор розглядає насамперед *добровільну* інженерію ума. По-друге, «ум» визначається як набір *переконань*, а останні, слідом за Чарльзом Пірсом, трактуються як набір *звичок*. Феномен звички трактується *прагматично-герменевтично* і визначається як «'фіксована' функціональна інтерпретація *світу* та власного місця в ньому, яка або працює, або не працює». Якщо конкретна інтерпретація постійно працює, вона є «хорошою» звичкою. Якщо не працює, значить «поганою» звичкою. На відміну від сучасних соціально-психологічних підходів до звички як ціленезалежної та автоматичної, а отже, «бездумної»/некогнітивної, автор стверджує, що звички є сутнісно *ціленезалежними* та *когнітивними*. Основна мета звички полягає в тому, щоб вирішити *проблемну ситуацію*, в якій знаходиться організм. Когнітивний елемент звички заснований на *інтерпретаційному зусиллі* організму, яке дозволяє йому визначити проблемну ситуацію як проблемну. Тому зв'язок між організмом і ситуацією не є прямим/безпосереднім, а скоріше опосередковується через функціональний *інтерпретаційний сенс*. Зрештою, інженерію ума слід сприймати як «інженерію звичок», і, якщо її розуміти таким чином, то розглянутий феномен можна розглядати як один з ключових феноменів для прояснення *людської природи*.

Ключові слова: інженерія ума, переконання, звичка, потік звички, інженерія звички, Пірс, Джеймс, Дьюї.

Надійшла до редакції 16 листопада 2022 р.

Леонов Андрій Юрійович

Університет Південного Іллінойсу

м. Карбондейл, штат Іллінойс

62901

США

Leonov Andrii

Department of Philosophy

Southern Illinois University

Carbondale, Illinois

62901

USA



<https://orcid.org/0000-0002-4174-9734>



andrii.leonov@siu.edu



<https://doi.org/10.31812/apm.7638>