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Law in mind. Some remarks on Leon Petrażycki's theory in the context of neurolaw

1. Introduction

Leon Petrażycki's tremendous work in jurisprudence made a great impact on Polish post-war theoreticians and sociologists of law[1]. However, his work did not receive much recognition in the global scope of legal theory, especially when it comes to authors coming from the common law tradition[2]. Yet, it seems that his pioneering thought is largely similar to ideas proposed nowadays within an interdisciplinary approach to jurisprudence. Therefore, comparing Petrażycki's theories with some modern ideas that were proposed with regard to so-called neurolaw may be an interesting enterprise[3]. Neurolaw could be described as a new trend to integrate findings of cognitive sciences (especially cognitive

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[1] See K. Motyka, *Wpływ Leona Petrażyckiego na polską teorię i socjologię prawa*, Lublin 1993.

[2] See K. Motyka, *Amerykańskie petrażycjana: „Law and Morality" w oczach krytyki*, in: *Prawo i* ład społeczny, ed. G. Polkowska, Warszawa 2000, p. 314–328. Cf. R. Banakar, *Who Needs the Classics? On the Relevance of Classical Legal Sociology for the Study of Current Social and Legal Problems*, in: Retssociologi, ed. O. Hammerslev, M. Madsen, Kopenhaga 2012 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2140775), A. Kojder, *Idee społeczno-prawne Leona Petrażyckiego i ich współczesne kontynuacje*, in: *Klasyczna socjologia polska i jej współczesna recepcja*, ed. J. Mucha, W. Wincławski, Toruń 2006, p. 57–90.

[3] For example, there was no mention of Petrażycki in a thorough review on the history of neurolaw. See F.X. Shen, *The overlooked history of neurolaw*, "Fordham Law Review" 2016, No. 85, p. 667–695.

neuroscience) with analysis of various legal problems[4]. Neurolaw tries to provide answers to traditional questions posed in general legal philosophy, such as legal ontology (what the biological – in particular neuroscientific and evolutionary – background of legal phenomena is), as well as to a plethora of specific problems related to different branches of law (e.g. to what extent research in neuroscience affects the scope of criminal responsibility)[5]. In the context of Petrażycki's theories, the first type of problems would be most important. What is crucial, in the light of dynamic progress in cognitive science, it becomes possible to empirically test some of the conceptions provided by Petrażycki, since he grounded his theory on specific biopsychological assumptions – to put it simply: he based his theory of law on another theory of his, regarding emotions.

The pioneering character of Petrażycki's ideas manifests itself in the context of neurolaw in three aspects. First, he pointed at human psychology as the basis for all legal phenomena[6]. Second, his approach was strongly empirical – Petrażycki was a legal realist and proposed investigating law as a set of facts[7]. He emphasized the necessity of employing the strictly scientific methodology to analyze law, therefore being one of the first proponents of something, that could be described as naturalism (or naturalization) in legal philosophy[8]. Finally, he stressed the fundamental role that emotions play in law. Although this issue was largely ignored in traditional jurisprudence and legal doctrine, it has recently attracted much attention[9]. Moreover, apart from this novel approach to legal theory, which emphasized the psychological dimension of law, the pioneering character of Petrażycki's thought was carried out in the field of sociology of law[10]. Petrażycki could be also seen as a progenitor to the economic analysis

[4] See e.g. F.X. Shen, *The Law and Neuroscience Bibliography: Navigating the Emerging Field of Neurolaw*, "International Journal of Legal Information" 2010, No. 38, p. 352–299.

[5] On the ontology of law from the perspective of neuroscience see e.g. B. Brożek, *Neuroscience and the Ontology of Law*, "Polish Law Review" 2017, No. 3(1), p. 90–105. On the criminal responsibility in light of neuroscience see U. Maoz, G. Yaffe, *What does recent neuroscience tell us about criminal responsibility?* "Journal of Law and the Biosciences" 2016, No. 3(1), p. 120–139.

[6] J. Lande, *Studia z filozofii prawa*, Warszawa 1959, p. 855. See also K. Motyka, *Leon Petrażycki: Challenge to Legal Orthodoxy*, Lublin 2007, p.28–30.

[7] T. Pietrzykowski, *Intuicja prawnicza,* Warszawa 2012, p. 278–279.

[8] Cf. *ibidem,* and also B. Brożek, *Normatywność prawa*, Warszawa 2013, p. 95–96, B. Brożek, *Some remarks on the naturalization of law*, in: J. Stelmach, B. Brożek, M. Soniewicka, *Studies in the Philosophy of Law 5: Law and Biology*, Kraków 2010, p. 73–82. On naturalism in legal philosophy see e.g. B. Leiter, M. Etchemendy, *Naturalism in Legal Philosophy*, w: *The Stanford Encyclopedia of Philosophy (Summer 2017 Edition)*, ed. E. Zalta (https://plato.stanford.edu/entries/lawphil-naturalism/)

[9] See e.g. K. Abrams, H. Keren, *Who's Afraid of Law and the Emotions?*, "Minnesota Law Review" 2010, No. 94(6), p. 1997–2074.

[10] See e.g. A. Podgórecki, *Unrecognized Father of Sociology of Law: Leon Petrażycki. Reflections based on Jan Gorecki's "Sociology and Jurisprudence of Leon Petrażycki*, "Law & Society Review" 1980/1981, No. 15, p. 183–202.

of law[11], especially when we consider one of its modern branches, behavioral economics and law[12].

To check to what extent Petrażycki's theory of law stands the test of time in the light of modern research in empirically-oriented jurisprudence, it is essential to briefly reconstruct characteristics of his theory as a first step. The foundation of the theory is the identification of law and morality with a specific type of emotional state. The second step is to compare the theory with propositions provided by Oliver Goodenough, an empirically-oriented legal scholar, and John Searle, a philosopher specializing in the philosophy of mind and social ontology. The first author focuses on presenting law as a mental state, and the other one constructs a theory of social institutions, building on strictly mental phenomena. It is also worthwhile to confront Petrażycki's theory of emotions with propositions of classifying mental phenomena discussed currently in the philosophy of psychology.

2. Mind, emotions, and the law

Petrażycki wanted to create a theory of law that would equate its essence with specific mental states. The first step took by him to construct this kind of theory was to rebuild the theory of emotions dominating at the time. Petrażycki's idea not only broke up with the traditional classification of mental phenomena, but also tried to compete with other contemporary psychological theories, including propositions by Wilhelm Wundt, or William James (the so-called James-Lange theory)[13]. Petrażycki's point of departure was to undermine the classic triad of mental phenomena: cognition (imaginations and sensations), feelings (defined

[11] See E. Fittipaldi, *Leon Petrażycki's Theory of Law,* w: *A Treatise of Legal Philosophy and General Jurisprudence. Volume 12. Legal Philosophy in the Twentieth Century: The Civil Law World, Tome 2: Main Orientations and Topics,* ed. E. Pattaro, C. Roversi, The Netherlands 2016, p. 443, T. Giaro, *Petrażycki jako prekursor law & economics*, "Studia Iuridica" 2018, No. 74, p. 135–154.

[12] R. Zyzik, *Czy Leon Petrażycki był prekursorem behawioralnej ekonomicznej analizy prawa?*, "Forum Prawnicze" 2017, No. 1(39), p. 21–33. M. Małecka, *O behawioralnym podejściu do badania prawa, paradoksie, do którego prowadzi i sposobie jego przezwyciężenia*, "Nauka i Szkolnictwo Wyższe" 2013, No. 1 (41), p. 19–42.

[13] See L. Petrażycki, *Wstęp do nauki prawa i moralności*, Warszawa 1959, R. Reisenzein, *A structuralist reconstruction of Wundt's three-dimensional theory of emotio*n, in: ed. H. Westmeyer, *The structuralist program in psychology: Foundations and applications*, Toronto 1992, p. 141–148, W. James, *What is an emotion?*, "Mind" 1884, No. 34(9), p. 188–205. Cf. E. Fittipaldi, *Everyday Legal Ontology*, Milan 2012, p. 26. Broader comparisons of Petrażycki and his peer psychologists are made by Bartosz Brożek (B. Brożek, *Emocje jako fundament prawa. Uwagi o teorii Leona Petrażyckiego*, in: *Naturalizm prawniczy. Stanowiska*, ed. J. Stelmach, B. Brożek, Ł. Kurek, K. Eliasz, Warszawa 2015, p. 253–265), and Tomasz Pietrzykowski (T. Pietrzykowski, *Intuicja…*, p. 280–284).

as experiences of pleasure or unpleasantness), and will[14]. According to him, this classification did not exhaust the universe of mental phenomena, because it did not include emotions (that he also called "impulsions")[15]. Sensations and feelings have purely passive character. They refer to passively experiencing specific mental states by the individual. On the other hand, will is nothing but of active character, working as an urge to act. In Petrażycki's view, most of mental phenomena cannot be classified as pure passive experiences or active drives. Instead, they have a mixed character. These mixed mental states are described by Petrażycki as emotions. He stresses their omnipresence in human mental life[16]. What is interesting, he tries to support his argument with an analogy to the nervous system, which is composed of afferent and efferent elements[17]. An example of such a mixed mental state could be hunger: not only it is a passive, unpleasant sensation, but it also drives an individual to acquire food (according to this account, every instance of hunger is accompanied by an appetite)[18].

Emotions as presented in this manner – apart from mental states of merely passive or active phenomena – could serve as a better understanding of human motivational processes. Emotions play the most important role in shaping human behavior. According to Petrażycki, among all types of emotions the ethical emotions are the most significant. Ethical emotions are divided into moral and legal ones. The main difference between the two is the fact that moral emotions are only imperative (i.e. they force us to do specific things), whereas legal emotions are both imperative and attributive (apart from forcing specific actions, we perceive them as due to someone else)[19]. Ethical emotions are also a subset of the larger class of normative emotions (to which aesthetical emotions would also belong). What would be distinctive of ethical emotions is their "mistic-authoritative" character, i.e. experiencing them as restricting us in our freedom of actions[20]. They could be appulsive, impelling to act in a specific way, or repulsive, repelling from an act. For example, if an honorable person was encouraged to deceive someone, they would feel a disgust similar to the

[14] L. Petrażycki, *O pobudkach postępowania i o istocie moralności i prawa*, Warszawa 2002, p. 5.

[15] L. Petrażycki, *O pobudkach*…, p. 7–8, 14–15.

[16] *Ibidem,* p. 13–14.

[17] *Ibidem,* p. 15–16. Interestingly enough, this example seem to undermine rather than support the argument, when it comes to the mixed states. For example, in visual perception, two types of streams: dorsal (responsible for perception, "passive"), and ventral (responsible for action, "active"), which are separate despite their interactions. See M. Goodale, D. Westwood, *An evolving view of duplex vision: separate but interacting cortical pathways for perception and action*, "Current Opinion in Neurobiology" 2004, No. 14, p. 203–211.

[18] L. Petrażycki, *O pobudkach*…, p. 8–13.

[19] *Ibidem,* p. 42–45.

[20] *Ibidem,* p. 25–27.

kind, which one feels against rotten meat[21]. What is important, ethical emotions occur within mind of each individual and they exist only there – therefore, Petrażycki's theory has been called "ethical solipsism"[22]. Moreover, setting these type of emotions as a basis for moral and legal phenomena means that behavior could be considered as ethical only when it is caused by these emotions and not some other kind of motivation[23].

To fully encompass the legal phenomena (or, even more broadly, every motivation to act) Petrażycki introduces another element – projections. Projections are always connected to emotional states[24]. They could be described as concepts or representations associated with a given object or event. Their existence makes it possible to explain such legal concepts as obligation, but they are also acting causally (force individuals to perform specific actions) – an embodied obligation binds in an almost literal way, just like some kind of a physical object (e.g. rope), apart from having only mental character[25]. By contrast, the concept of a norm plays a secondary role for Petrażycki. Its character is only intellectual, referring to the content of our ethical propositions or judgments, which are a result of combining emotions and imaginations. Normative propositions could be divided into categorical and hypothetical. Categorical ones do not require a representation of a norm's hypothesis (i.e., representation of the necessary conditions that "activate" the norm)[26]. On the other hand, hypothetical normative propositions are composed of three cognitive elements: a hypothesis, a representation of norm's addressees, and a representation of a normative fact (which serves as a norm-creating factor)[27]. Norm's addressees could be categorized into three kinds: individuals, "everyone", or a specific class of subjects[28]. The most interesting part of the norm seems to be the normative fact, which serve as the source to them. Acknowledging the existence of a normative fact lead to the possibility of discussing positive ethical statements. In the case of the lack of imagining normative facts, our ethical beliefs could be described only as

[21] *Ibidem,* p. 21.

[22] Which was an obvious point for criticism of Petrażycki's theory. See E. Fittipaldi, *Leon Petrażycki's…*, p. 449. It seems that a correct term for Petrażycki's theory would be just "internalism". For instance, he notes that a real phenomenon related to the existence of the legal entity of State Treasury exists in the mental sphere of the person imagining it. See L. Petrażycki, *O ideale społecznym i odrodzeniu prawa naturalnego*, Warszawa 1925, p. 15.

[23] Including especially opportunistic and goal-oriented motivation. As such, Petrażycki fully discarded a utilitarian approach to ethics. See E. Fittipaldi, *Leon Petrażycki's…*, p. 450.

[24] *Ibidem,* p. 452.

[25] *Ibidem,* p. 452.

[26] This difference may be nonetheless difficult to grasp. See *ibidem,* p. 457–459.

[27] See *ibidem,* p. 456–461.

[28] Eduardo Fittipaldi remarks that the fact of being a specific type of a subject may be as well transferred to the hypothetical part of the norm. See *ibidem,* p. 459–461.

intuitive. Petrażycki points out that natural law theorists talked exactly about these types of intuitive norms[29]. Normative facts may create or annul norms. However, from one normative fact different conclusions may be derived by different individuals, which results in creating various representations of a due behavior. What is more, a normative fact needs not to be grounded in a specific social rule. The only sufficient condition to classify a fact as normative is that it triggers a specific psychological state. Petrażycki pointed out a few typical normative facts. These include inter alia statutes, international agreements, custom, precedents, facts related to the activity of the courts (such as legal practice, answers to prejudicial questions, *res iudicata*), and the legal doctrine and dogmatics, i.e. opinions of legal experts[30].

The division of emotions into legal and moral (so imperative-attributive, or merely imperative, respectively) directly results in the division of ethical duties. Legal duties exist only if the feeling of restriction in freedom to act is an effect of existing obligations to whomever. Moral duties do not have this property, i.e. do not refer to other individuals. This means that in the case of legal duties there must be a party obliged (imperative aspect) and a party entitled (attributive aspect). Moral duties instead have only the imperative aspect – there is no entitled individual. Determining whether a given type of behavior is experienced as a moral or legal duty is always an empirical issue and could not be resolved on the theoretical grounds[31]. What is important, the existence of one individual alone is sufficient for a legal duty to occur. The individual could be on both sides of the duty. Moreover, one can perceive the legal duty from an external perspective, which could be described as a third party view[32]. This theory has some interesting consequences. The extent of potential addressees is unlimited, provided anyone actually perceives them as a party to obligation. This means that the theory encompasses not only physical persons, but also legal ones, such as countries, corporations, or foundations. Moreover, even entities such as animals and dolls could be seen as such. The answer to the question of which subjects could be classified as legal persons from the Petrażyckian viewpoint is surprisingly broad and simple – every entity that is actually perceived by someone as a party to obligation. This answer is always an empirical matter. Another question is what *should* be a legal person. However, the answer in this

[29] *Ibidem*, p. 461–461.

[30] *Ibidem,* p. 484–494.

[31] *Ibidem,* p. 468. This far-fetched redefinition of moral and legal phenomena was a main point of criticism of Petrażycki, presented e.g. by Maria Ossowska. See A. Kojder, *Mizerne resztki? Raz jeszcze o normie prawnej i normie moralnej u Petrażyckiego*, in: "Profilaktyka społeczna i resocjalizacja" 2011, No. 17, p. 55–82.

[32] E. Fittipaldi, *Leon Petrażycki's…*, p. 464–465, 468.

matter could be provided by legal doctrine and not legal theory as such[33]. On Petrażycki's account, every legal duty is, in fact, reducible to three kinds of performance: executing an act (*facere*), refraining from acting (*non facere*), or abiding the act (*pati*). These performances build respective combinations on relations between the party entitled and the party obliged. What is important in this approach is the division between refraining from action and abiding it. Tolerating an act can not be reduced to the lack of action, because it is different from the viewpoint of psychological experience. Therefore this type of reduction is arbitrary and unjustified when it comes to the aspects of psychological methodology[34].

However, there seem to be a lot of problems with Petrażycki's theory. Charges against him can be divided into two groups: psychological (referring to his particular view on emotions), and legal (reducing law to a kind of mental state).

Firstly, normative emotions had to be universal for all humans, despite the culture they live in. As noted by Bartosz Brożek, in the light of current anthropological studies the claim about some universal set of human emotions is quite dubious[35]. One can try to defend Petrażycki by stating that his universalism may not refer directly to ubiquitous occurrence of specific emotions, such as shame, but rather to the universality of every type of emotion in Petrażyckian sense, i.e. the universality of moral and legal emotions as a structure of mental states.

Other counterarguments against Petrażycki refer directly to archaic methodology, which could not befit current classifications of emotions in psychology, and in an arbitrary and assertive manner delineates the border between law and morality, which, as shown by many studies, are closely related[36]. As a consequence, Petrażycki's theory of emotions did not meet the goal of adequacy. The criterion of adequacy was postulated by Petrażycki as a primary logical tool, which should be used to evaluate scientific research. On his account, adequacy was described as a reference of a given proposition to the proper class of entities[37]. The Petrażyckian approach to emotions is in fact a proposition of classification of all human mental states, as well as a theory of motivation[38]. However, if we interpret it in a benevolent way, as reducing the essence of law to a mental state, which would then be a type of psychophysiological reaction

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[33] Legal dogmatics was criticised by Petrażycki as a type of sophistry, which relies on unreal assumptions that the sources of law do not contradict themselves, are explicit, coherent and complete. According to him, it is the contrary: actually alternative solutions solutions to many legal problems are equally plausible and justified. See *ibidem,* p. 502–503.

[34] *Ibidem,* p. 475–479.

[35] B. Brożek, *Emocje…,* p. 264–265.

[36] *Ibidem,* p. 262–263.

[37] L. Petrażycki, *Nowe podstawy logiki i klasyfikacja umiejętności*, Warszawa 1939, p. 11–13.

[38] See T. Pietrzykowski, *Intuicja…*, p. 284.

accompanied by a representation of due behavioral pattern, it may turn out as very interesting from the viewpoint of modern neuroscientific research in the context of normative standards (such as a reasonably prudent person, or a model consumer). As already mentioned above, Petrażycki broke with the traditional classification of mental states as purely "active" or "passive" and introduced the concept of mixed states, which somehow corresponds with current discussions in the philosophy of psychology. The classic, Humean view on mental states in the context of motivation (especially in the context of ethics) included two categories: beliefs as cognitive states, and desires as conative states, related to will[39]. Typically the difference between these states is portrayed in the form of the direction of fit[40]. In beliefs it is the mind which has to fit world, in desires it is otherwise – world has to fit mind. Some philosophers contest this division and talk about *besires*, i.e. mixed mental states, which integrate cognitive and conative elements[41]. Moral feelings would just be an example of this type of states.

The main problem with Petrażycki's theory as a descriptive theory of law is the fact, that through its psychologism about legal phenomena, it falls into strong reductionism, or even eliminativism[42]. As it presents law solely as a type of emotion (the imperative-attributive one) it becomes inadequate since it does not catch the social dimension of law – when talking about law, no one would actually mean children engaged in playing with dolls. When we talk about contracts, we talk about the subject matter, which usually refers to the performance of the parties, rather than corresponding emotional and mental states which represent duties. What is more, mentally individualizing law causes it to lose its social character, which expresses itself even in the issue of normative facts as sources of law: if any person perceives a given fact as a source of law, it is a sufficient condition for it to actually become one.

Due to dynamic progress in neuroscientific research, Petrażycki's theory of ethical (and legal in particular) experiences could be renewed with current conceptual framework and eventually tested. To do such thing, one can for instance check what regions in the brain are active while subjects are presented with a task requiring legal reasoning and exercising moral intuitions. That kind of study is proposed by Oliver Goodenough. In his opinion, thinking about law is implicitly filled with Cartesian dualism, i.e. the view that mind and body are separate substances. Goodenough contrasts dualism with the idea of modular mind, popular in cognitive science. He points out, that neuroscientific stud-

[39] See E. Radcliffe, *Hume on the Generation of Motives: Why Beliefs Alone Never Motivate*, "Hume Studies" 1999, No. 1–2(25), p. 101–122.

[40] Introduction of this concept is often assigned to G.E.M. Anscombe. See e.g. L. Humberstone, *Direction of Fit*, "Mind" 1992, No. 101, p. 59–83.

[41] N. Zangwill, *Besires and the Motivation Debate*, "Theoria" 2008, No. 74, p. 51.

[42] T. Pietrzykowski, *Intuicja…*, p. 293–294.

ies may enable us to reformulate our thinking about law[43]. The assumption of modularity of mind is one of the most discussed problems in cognitive science nowadays. This conception was originally presented by Jerry Fodor[44]. In his opinion mind is a set of modules – specialized cognitive mechanisms, which are located in a specific neuronal architecture, work relatively fast, and responsible for selected, rather simple tasks[45]. The critique of the theory lead to the creation of various types of "mild" modularity, which differ in its characterization of modules, allow their neural plasticity, or deny that some of the functions of the brain are modularized[46].

Goodenough put his position in contrast to traditional American approaches to jurisprudence and its methods: a methodology of textual analysis proposed by C.C. Langdell (related with positivist thinking about law), or, what is more interesting, legal realists' stance, which derived their inspirations from sociology, economics, political science or anthropology[47]. None of these methods deals with the question of how law actually works in people's heads[48]. It is nonetheless possible to answer this question due to achievements in neurocognitive studies. This idea clearly reminds us of Petrażycki's thought: law is nothing over and above the things that happen in the minds of individuals, and as such should be studied (the only difference being the replacement of less strict methods of psychology with the results of neuroimaging and its interpretation[49]). Not unlike Petrażycki, Goodenough proposes it not only as a general methodological remark

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[43] O. R. Goodenough, *Mapping Cortical Areas Associated with Legal Reasoning and with Moral Intuition,* "Jurimetrics" No. 41(4), p. 432–434.

[44] P. Robbins, *Modularity of Mind,* in: *The Stanford Encyclopedia of Philosophy (Winter 2017 Edition),* ed. E. Zalta, https://seop.illc.uva.nl/entries/modularity-mind/ (accessed on 02.05.2018)

[45] This does not mean that a module as a functional structure, must be located in a one part of the brain. The structure may be located in various places. Such an example can be found when we analyze the vision processing. (see J. W. Kalat, *Biologiczne podstawy psychologii*, Warszawa 2006, p. 143–175). It is rather important, that a certain function was performed by specific, fixed parts of the nervous system. See also B. Brożek, *Normatywność…,* p. 237.

[46] Cf. P. Robbins, *Modularity…* See also J. Prinz, *Is the mind really modular?*, in: ed. R. Stainton, *Contemporary Debates in Cognitive Science*, Malden 2006, p. 22–36, as an example of criticism towards modularity.

[47] Some of their claims are in fact similar to those proposed by Petrażycki. Langdell wanted to make legal science more strict by systematic analysis and research, while realists investigated law as an actual phenomenon, what was mentioned already. See O. R. Goodenough, *Mapping…*, p. 430–431. Cf. T. Pietrzykowski, *Intuicja…*, p. 213–214. Goodenough recalls Jerome Frank, who wanted to create a psychological theory of law as well, with the use of Freudian approach to psychology. According to him, obedience to law was a result of the need for strong father figure. See O. R. Goodenough, *Mapping…*, p. 433.

[48] *Ibidem,* p. 431.

[49] It is worth noting, that possibility of such a translation is a very controversial claim, nonetheless this goes beyond the scope of this article.

but also as an ontological assumption. As he remarks, "[l]aw is a human mental activity. We do it in our heads, with our brains, as a use of our intelligence"[50] .

Goodenough suggests that legal reasoning consists of two modes of mental activity: intuitive moral reasoning and the application of legal methods. Legal reasoning is based on the rules of logic and argumentation, which are rules that are expressed in language[51]. In his opinion this dichotomy reflects quite well the core of the debate between positivism and natural law theory. According to natural law theorists, law consists of basic intuitions about justice, whereas postivists refer to analyzing positive law with a set of given rules[52]. Goodenough notes that these processes are intertwined – our intuitions about justice are a result of a subliminal algorithm, which is shaped by genetic predispositions, cultural heritage, and personal experiences. None of the normative decisions are "pure", as Hans Kelsen proposed, but is in fact a transformation of moral intuition through rules of positive law, expressed in language[53].

Goodenough compares linguistic- and rule-based mode of legal reasoning to interpretive module (left brain interpreter), which existence is proposed by Michael Gazzaniga[54]. According to Gazzaniga, the interpretive module is set in the left hemisphere of the brain and its function is to integrate reality in a holistic way. It connects all the data coming from various sources[55]. The main goal of the interpreter is making sense of the data and finding patterns in stimuli coming to the brain. It seeks the causes even if in reality there are none, and because of that confabulations are generated[56]. What is more, it tries to explain the current emotional state of the organism[57]. Some evidence supporting Gazzaniga's claim may be found in studies that were conducted on subjects with split-brain, i.e. cut corpus callosum)[58]. Corpus callosum is the part of the brain that allows the flow of information between the two hemispheres[59]. It is worth noting that the interpreter is responsible for the integration of information, pieces of which are a result of the activity of other different modules, which

[50] *Ibidem,* p. 431.

[51] *Ibidem,* p. 436.

[52] *Ibidem,* p. 437–439.

[53] *Ibidem,* p. 439.

[54] *Ibidem,* p. 436.

[55] M. Gazzaniga, *Kto tu rządzi - ja czy mój mózg?*, Smak Słowa, Sopot 2013, p. 91. What is worth mentioning, the issue of information integration was tackled by the aforementioned Polish neurophysiologist Jerzy Konorski, who attended Petrażycki's lectures and was inspired by his thought. See J. Konorski, *Integrative activity of the brain. An interdisciplinary approach*, Chicago 1967.

[56] M. Gazzaniga, *Kto tu rządzi…*, p. 91.

[57] *Ibidem*, p. 77–80, 86–88.

[58] For a majority of experimental evidence in favor of the interpreter hypothesis see *ibidem,* p. 70–92.

[59] J.W. Kalat, *Biologiczne podstawy…*, p. 420.

are encapsulated. The interpreter does not have access to their mechanisms or mode of action. These subsystems are located within both parts of the brain[60]. For instance, if we simplify, the general processing of visual information and searching for patterns present there is performed in the right hemisphere (this may be relevant, e.g. when analyzing legal texts)[61]. This hemisphere is able to create representations for its own use, on the basis on stimuli coming to it, which may be different from stimuli coming to the left hemisphere. When it comes to speech processing, the left hemisphere dominates strongly in most human individuals, yet there are exceptions, especially in left-handed subjects[62]. This analogy is, however, far from being flawless. First and foremost, it focuses on the division between linguistic and non-linguistic modes of information processing, and the direct connection of the interpreter to the mechanism. The interpreter is also a secondary rationalizer, creates explanations *ex post*, whereas legal interpretation (understood, inter alia, as applying canons of interpretation) is mostly a creative, pro-active enterprise[63]. What is more, some neuropsychological data seem to work against the analogy – for example there is a syndrome in which patients suffer from severe disability when it comes to handling language and at the same time do not perform badly in other intellectual tasks[64]. Therefore, the analogy between legal reasoning and left brain interpreter is limited at best.

It is worth noticing that despite reducing the essence of the law to emotions Leon Petrażycki strived for creating a theory of law that not only would reflect the actual character of legal phenomena, but would also consider social factors. In this context, the reductive psychologism may seem incoherent with stressing the social and political dimension of law[65]. Could we overcome this inconsistency and combine the psychological approach to law with the more general, social background?

The proposal that points out the existence of mental capacities which are necessary to create social institutions was formulated in the works of John Searle. It combines biological and psychological explanations to provide the full picture of the background of social phenomena. According to Searle, social facts can be explained with reference to three elements: intentionality, assigning functions, and constitutive rules[66]. The foundation, which is a condition for the possibility of social facts to occur is the phenomenon of consciousness, which is

[60] M. Gazzaniga, *Kto tu rządzi…*, p. 84.

[61] *Ibidem,* p. 82–84.

[62] J.W. Kalat, *Biologiczne podstawy…*, p. 429–430.

[63] *Ibidem,* p. 91.

[64] *Ibidem,* p. 437–438.

[65] Cf. A. Kojder, *Idee społeczno-prawne…,* p. 80–82.

[66] T. Pietrzykowski, *John R. Searle i ontologia prawa, "Studia Prawnicze"* 2009, z. 1–2 (179–180), p. 7–9.

a biological property of selected beings[67]. One of the properties of consciousness is its intentionality, i.e. "aboutness", the property of referring to something. The particular type of intentionality is shared intentionality (also called collective intentionality), which enables the individuals to adopt the perspective of "us", which is then a condition of advanced cooperation. This type of cooperation is necessary for social norms and institutions to emerge[68]. A particular type of those is, of course, law. Function assignment plays a central role there. It is a conventional and arbitrary ascription of a certain status to specific structures. The status can refer to the primary functions of the structure only symbolically, or even could be fully detached from them. The special attribute of that status is auto-reference. The status is possessed by objects, that we think that possess it, and it means what we think it means, as explained by Tomasz Pietrzykowski[69].

The aforementioned phenomena enable the creation of so-called institutional facts. A constitutive rule is set by adopting a given social fact by a large group of individuals. This fact becomes then an institutional fact[70]. Searle's view does not, therefore, reduce law to specific mental states, but emphasizes their necessity, and describes their properties. The most important property for the construction of the reality of social norms is intentionality. Searle's idea of constitutive rules may remind of Petrażycki's account of normative facts, but it is worth to note that normative facts, on the contrary, are always reducible to individual experiences rather than exhibiting a necessary social dimension.

3. Concluding remarks

It would be a truism to say that Leon Petrażycki was ahead of his time. The comparison of general trends in his thought with current theories proposed on the borders of law and cognitive science leads to uncovering ideas which are surprisingly up-to-date. In particular, the idea of presenting law as a mental phenomenon and studying it with the use of empirical methods are such examples.

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[67] *Ibidem,* p. 9–10. As he notes, consciousness and intentionality should be treated as a part of the natural world just as photosynthesis and digestion. See J. R. Searle, *Umysł. Krótkie wprowadzenie*, Poznań 2010, p. 295.

[68] Very interesting studies (on children and primates), which support this theory, are presented in this context by Michael Tomasello. His hypotheses underline the vital role of shared intentionality as a foundation for uniquely human scale of altruism and cooperation (which consist of informing others, helping them and sharing), which enabled the emergence of advanced social structures. It is very consistent with Searle's view, to whom Tomasello refers. See M. Tomasello, *Dlaczego współpracujemy*, Copernicus Center Press, Kraków 2016.

[69] T. Pietrzykowski, *John R. Searle…,* p. 14.

[70] *Ibidem*, p. 16–17.

This proposition exposes him nonetheless to a charge of reductionism. Providing a broader, social context may be a fruitful way of improving his proposition. It is worth noting here that Petrażycki himself acknowledged the importance of the multidimensionality of analysis. For example, he underlined the necessity of introducing an evolutionary perspective, which is another point that brings him close to naturalistic approaches to law popular nowadays[71]. Tomasz Pietrzykowski directly compares Petrażycki to Edward O. Wilson[72]. Wilson, the creator of sociobiology, tried to popularize the idea of "consilience", i.e. combining various branches of science to make them more coherent and unify the knowledge, especially when it came to the division between natural and social sciences[73].

The main problem with Petrażycki's theory is, quite paradoxically, his methodological assumptions, proposed to grasp the proper class of phenomena. Those lead to the conclusion that law as such, has some kind of uniform character, which could become a basis for systematic research[74]. He generally redefined legal phenomena, fully discarding the commonsense intuitions about the law[75]. This enterprise required him then to build a particular theory of emotions. Eventually, both theories seem to focus on explaining things other than those for which they were proposed. Nonetheless, it is worth to note that Petrażycki's theory of emotions pointed out two things in a pioneering way. Firstly, it underlined the role of emotions it the context of motivation, especially ethical motivation. Secondly, it firmly rejected the unitary character of mental states and focused on combining cognition and conation. This is another point that makes Petrażycki's account similar to the current discussions in moral psychology[76].

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[71] See T. Pietrzykowski, *Intuicja…*, p. 279–280.

[72] *Ibidem,* p. 280.

[73] See E. Wilson, *Konsiliencja. Jedność wiedzy*, Poznań 2011, p. 15–18.

[74] Cf. T. Pietrzykowski, *Intuicja…*, p. 286–289; B. Brożek, *Emocje…*, p. 258–265; B. Brożek, *Some remarks…*, p. 78. O roli ewolucjonizmu w naukach prawnych See W. Załuski, *Ewolucjonizm w badaniach nad prawem*, w: *Wielka Encyklopedia Prawa, t. VII. Teoria i filozofia prawa*, ed. A. Bator, J. Zajadło, M. Zirk-Sadowski, Warszawa 2016, p. 141–145.

[75] See K. Motyka, *Leon Petrażycki…*, p. 24.

[76] For example the moral foundations theory proposed by Jonathan Haidt. See J. Haidt, *Prawy umysł*, Sopot 2014.

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Streszczenie

Prawo w umyśle.
Kilka uwag o teorii Leona Petrażyckiego w kontekście neurolaw

Pionierskie teorie Leona Petrażyckiego dotyczące prawa i emocji nie doczekały się szerokiej recepcji na Zachodzie, jednak okazuje się, że autorzy z nurtu *neurolaw*, czyli interdyscyplinarnych studiów nad prawem, wykorzystujących metody neuronaukowe proponują podobne pomysły dotyczące istoty prawa. W szczególności dotyczy to ujęcia prawa przede wszystkim jako przeżycia psychicznego, które podlega badaniu za pomocą metod naukowych. Taka teoria naraża się na zarzut redukcjonizmu, który jednak przezwyciężyć można, nadając jej uspołeczniony, wielopoziomowy kontekst. Co więcej, przedstawiona przez Petrażyckiego idea, iż emocje pełnią szczególnie istotną rolę w motywacji etycznej i mają dwustronny, kognitywno-konatywny charakter, jest dziś szczególnie istotna w dyskusjach filozoficzno-psychologicznych.

Słowa kluczowe: Leon Petrażycki, *neurolaw*, naturalizacja prawa, psychologiczna teoria prawa, prawo i emocje

Summary

Law in mind. Some remarks on Leon Petrażycki's theory in the context of neurolaw

Pioneering theories of Leon Petrażycki regarding law and emotions have not been popularized in the Western scientific literature. Yet, some authors writing on neurolaw, a new field of interdisciplinary studies, integrating neuroscientific research and legal studies, have proposed strikingly similar ideas regarding the essence of law. In particular, this concerns the idea of law as a mental state, which should be studied scientifically. The main objection to such a theory may be its reductionism. However, this theory could have been enhanced with a social, multi-layered context. Moreover, Petrażyckian idea of emotion as mixed cognitive-conative states, which serve as a main factor of ethical motivation, is nowadays an important point in philosophical-psychological discussions.

Keywords: Leon Petrażycki, neurolaw, naturalization of law, psychological theory of law, law and emotions