Free Will in Criminal Law Through the Lens of Neuroscience

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Abstract

The article deals with the problem of the ratio of free will and guilt of a person through the prism of recent research in neuroscience. Key aspects of understanding guilt in criminal law and its relationship to free will have been identified. Deterministic and Indertermist approaches to determining the essence of freedom of will in the doctrine of foreign criminal law are disclosed. The purpose of the study is to determine the essence and significance of freedom of will in understanding the institution of guilt and to correlate freedom of will with the basis of criminal responsibility. On this basis, it is proposed to establish scenarios for the development of criminal law in the event of a rejection of the principle of guilt and to outline the prospects for the functioning of criminal responsibility in the context of the security doctrine. According to the results of the study, it was proposed to maintain the existing concept of freedom of will and indeterminism as the basis for criminal liability. It is proposed to distinguish between the concepts of "free will" and "freedom of action".

Keywords: *criminal law, responsibility, free will, guilt, crime, punishment, guilt, neuroscience.*

I. A new perspective on the understanding of free will

Free will is the cornerstone of Western European criminal law. The debate about understanding free will in the philosophy of criminal law does not stop silent. However, not only in the field of criminal law. The point is not even what approach to take as a basis: determinism or indeterminism, compatibilism or incompatibilism. The denial of free will or the illusion of this phenomenon creates new standards in the understanding that there is a crime and that a person can be prosecuted and whether at all. Here, the main rebuke to law (to criminal, including) is that it is very conservative and does not want to take into account new discoveries in neuroscience, and cannot abandon the postulate of free will[1]. And on this occasion, it was increasingly said that free will is incompatible with scientific considerations and the concept of guilt.

Recall that at the heart of the modern doctrine of criminal law, the central element of the crime is an act that is relatively free, and which is accepted by the subject himself.

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[1] Some researchers even give the impression that "the science of criminal law is immune from criticism of free will". That is, the consistency of the precondition of free will cannot be discussed at all in criminal law. H. Kudlich, *Die Kritik der hirnforschung an der willensfreiheit als chance für eine neudiskussion im strafrecht* [Brain research's criticism of free will as an opportunity for a new discussion in criminal law] in Onlinezeitschrift für Höchstrichterliche Rechtsprechung zum Strafrecht no. 2/2005, p. 43.

The school of classical criminal law assumes that guilt and responsibility imply free will. Without free will, there is no responsibility. A strong-willed capacity, in the absence of which the subject is not responsible, means that the person has the ability to act in accordance with his own motives and can control his behavior. In this regard, punishment as a form of exercising criminal responsibility implies the guilt of the offender, and it is justified only if the subject acted guilty, in other words, his freedom of will can be confirmed in a non-deterministic sense. This suggests that decisions should not be based on motives of conduct or on certain reasons. People themselves determine their actions, no matter what they are conditioned on, and it is from these indeterministic positions that criminal law comes, determining the presence of free will.

However, recent discoveries in the field of brain functioning indicate that a person is not free in his self-determination, he does not act freely, because he is subordinate to his unconscious. In this respect, free will is relative and does not shape our actions. Usually, here we refer to the experiment of B. Liebet, who recorded that the action does not begin with will, the potential for readiness to act in a certain way is not related to the freedom of choice of a person[2]. Literally, this means that almost nothing remains of free will, that human actions are as deterministic as all causal processes in nature[3]. In fact, in all this paradigm, free will is designed (at best) to be a controlling function where free will exercises control over the readiness potential, that is, a strong-willed decision follows the readiness potential and either approves or stops the action.

In addition, non-compliance with the consequences of criminal law on the basis of free will raises a number of other questions, where the importance of the precondition of free will is questioned:

a) in the presence of free will, the preventive purpose of punishment "does not work", because in such a system the prevention of crime is unnecessary and meaningless. Thus, the purpose of crime prevention is unnecessary because any perpetrator can act within the framework of existing legislation and attempts to psychologically influence it (or rather its will) through educational and restraining measures are meaningless. Such psychological influence is excluded if a person cannot decide and make his own decision. There is no free will[4];

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[2] According to American scientists, it was found that, at least in the case of simple movements, conscious will decision is always preceded by unconscious neural activity, the so-called readiness potential, that is, this readiness potential never coincides with a conscious human decision. For this observation, later they even coined the phrase: "We do not do what we want; we want what we do". Subsequently, these B. Libet results were confirmed by other scientists. This meant that at the heart of the individual phenomena observed during the functioning of the brain, it is empirically difficult to support the idea of human "free will". These researchers' scientific findings are also consistent with both psychological evidence of actions (e.g., experiments with signals or electrical brain stimuli) and neurobiological evidence of control of arbitrary actions. In the end, the results of the research are that the final decision is made 1-2 seconds before this decision is realized and the person has a desire to perform the action. Therefore, on the one hand, people can attribute to themselves actions that they did not commit, and on the other hand, they can deny actions in respect of which they can be proved to be their executors. B. Libet, *Mind time: The temporal factor in consciousness, Perspectives in Cognitive Neuroscience*, Harvard, 2004.

[3] J. Feinberg, *The moral limits of the criminal law*, Oxford, 1984.

[4] G. Spilgies, *Die Bedeutung des Determinismus-Indeterminismus-Streits für das Strafrecht. Über die Nichtbeachtung der Implikationen eines auf Willensfreiheit gegründeten Schuldstrafrechts* [The significance of the determinism-indeterminism dispute for criminal law. About the non-observance of

b) the statement of free will is contrary to criminological studies of the causes of crime. This is due to the fact that under such a paradigm, the search for the causes of crime is also meaningless, because there are no reasons for the crime, subject to free will. In this regard, all criminal etiological research seems superfluous, since it is carried out only in order to prevent criminal crimes by eliminating the reasons already identified, and if there is freedom of human will, then it is not related to the causality of the decisions made by the subject (within the framework of indeterministic concepts);
c) free will is not taken into account when choosing a punishment, since freedom of will cannot be measured on a certain scale (it does not increase or decrease, but is simply stated). This leads to the exclusion of the possibility of justifying a person through a certain motive in his behavior, because if there is a deterministic motive, then by definition he excludes a non-deterministic approach to free will. In other words, if we recognize the existence of free will, then why, in a number of situations, do we put forward grounds for exempting a person from criminal responsibility on the grounds of some kind of motivational behavior?

II. Free will as an illusion

As you know, criminal law forms the reaction of the state to criminal behavior. Such conduct is determined on the basis of a standard, which indicates what a person should and can do and what is a violation (unlawful act), since it deviates from these standards – regulatory rules of conduct. The presumption of the legislator in this case (responsibility is the norm, irresponsibility is the exception) implies a certain idea of what normality is (permitted behavior).

As indicated in the Western European literature, one element of responsibility is the will ability (the ability to determine itself according to this assessment), that is, the ability to act in accordance with their own motives and exercise control over their behavior. In order to be found guilty, a person who has committed an act must be able to act in accordance with what he is motivated by knowledge of the regulatory rule. Thus, he will be found irresponsible if, knowing how to act contrary to the law, he could not do anything about himself[5].

Therefore, having a strong-willed ability implies for a responsible person the ability to determine his act. He has a will that he can freely exercise: when faced with a situation that he assesses as illegal, he can refrain from actions and, thus, control his behavior. It is this free will that distinguishes normal from abnormal, responsible from irresponsible.

According to the moral concept of guilt, a person is responsible because he made mistakes using his free will. Thus, responsibility depends on a certain freedom of will. However, responsibility is of great importance beyond its understanding solely as a condition of guilt. The very concept of responsibility has its own and autonomous significance in the face of a crime that goes beyond a person's mere capacity to be guilty. The lack of free will does not mean that the fate of man cannot be changed. On the contrary, determinism assumes that its (human) actions are determined by many factors, and many of them are not congenital, but are the result of the environment in

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the implications of a criminal law based on free will], Verlag Dr. Kovac, Hamburg, 2004, p. 200.

[5] J. Didisheim, *Déterminisme et Responsabilité Pénale: Inconciliables?* https://sui-generis.ch/article/view/sg.29/618/.

which the subject develops. From this point of view, free will indicates that human actions are not determined only by physical causality. And in this context, free will is an illusion, because human behavior depends on many external and internal factors.

The cornerstone here for determinism is the latest neuroscience studies of brain decision-making mechanisms. And as we know, these studies have shown that our decisions are influenced by many causes and conditions. Hence the assumption that the idea of free will is an illusion. It is argued that our choice is by no means free, and sometimes we cannot do quite differently in different situations. The choice cannot be fully determined, it is influenced by many factors that go beyond the characteristics traditionally attributed to free will: the structure of the brain or external simulations can be a source of movements, decisions, pathologies. The slightest brain damage, the slightest change in neuronal functioning can affect the content of the decision.

By and large, this provision indicates that an important part of the decision-making process is unconscious. As J. Didisheim emphasizes, of course, it is impossible to establish that we are deterministic in the true sense of the word, but the achievements of recent years have shown that we are limited in our choice[6]. Man is the product of his genes, his brain and his environment. Its actions are controlled by areas of the brain inaccessible to consciousness. And therefor are not subject to his control[7]. Although, today people believe that they are free in their decisions, but in fact, as neuroscientists believe, "they are the executors of their brains".

In this regard, J. Didisheim wonders: does a person have a special ability, a will that can be shown freely, that is, without any restrictions? And he summarizes: if freedom is understood as "full consciousness", then the answer seems to be negative[8]. The logic of determinism in this case is that the choice of a person depends on many factors, such as genetics, brain structure, life experience, context etc.[9]. And if we consider neurobiological determinism in its classical understanding, then we will not be able to confirm the existence of free will by the simple argument that life in society would be impossible without it.

In stating this, there is an unequivocal conclusion. Its essence is that freedom of will and the resulting concept of guilt are "necessary fiction for the state and legalized by it", which primarily serves to maintain the legal order[10]. The traditional concept of criminal responsibility, which is based on the guilty conduct of a person, makes the entire criminal law system incompatible with determinism. Guilt cannot justify responsibility, and the preventive functions of criminal punishment do not depend on free will[11].

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[6] J. Didisheim, cited.

[7] I. Breuer, *Ist Verantwortung eine Illusion?* [Is responsibility an illusion?] https://www.deutschlandfunk.de/ist-verantwortung-eine-illusion.1148.de.html?dram:article_id=180844.

[8] J. Didisheim, cited.

[9] The determinism of human behavior, which has previously been affirmed by religious, psychoanalytic or behaviorist parties, has recently been presented mainly by neuroscience studies. Behind this is the idea of peace as a physically causally closed system with fixed relationships between causes and consequences. Experiments with imaging methods show that processes that are hidden from consciousness lead to solutions, and that only then do we come up with the reasons for our actions. V. Ulrich, *Psychiatrische Gutachten* [Psychiatric Opinions], https://www.aerztezeitung.at/ archiv/ oeaez-2012/oeaez-1516-15082012/psychiatrische-gutachten-zurechnungsfaehigkeit-freier-wille. html.

[10] W. Schild, *§ 20 StGB* [Section 20 of the Criminal Code], http://www.jura.uni-bielefeld.de/ lehrstuehle/schild/nomos___20.

[11] Here, the most radical neuroscientists argue that neuroscience today suggests that no one is really responsible, because we are not agents – but victims of neural circumstances that mechanically produce our epiphenomenic thoughts and movements of our bodies.

The freedom of the personal self in relation to the brain should not be determined by law. And if today no one can prove the opposite from a philosophical and legal point of view, then this indicates that the concepts of criminal responsibility and freedom of will used are not correct[12]. Free will in the legal sense is a concept that is used in a contradictory way and in its current wording is not a sufficient basis for establishing guilt and punishment. In this sense, the apologists of determinism very clearly indicate their position, which indicates that "it is wrong to base the concept of guilt on free will, taking will ability as a condition of responsibility"[13].

III. Frontiers of free will and criminal liability

What could all this led to? By shifting the latest neuroscience results to the ground of jurisprudence, they should bring about profound changes in human self-esteem and remove the basis of the principle of personal responsibility as a central one in criminal law. One might even think that if criminal law and criminological theories were formulated as deterministic causal laws, then according to them the individual sanity of the subject would be excluded.

Nevertheless, the issue of free will is a problem only when the law requires that freedom[14]. Today, freedom of will is directly linked to guilt, where criminal guilt is the accusation of a person for committing a crime (misconduct). This accusation links the offender and his act, which involves reconciling his will with understanding what is being done and managing the person's actions. Thus, there is a violation of the legitimate will, when the executor must be able to form his will and relate it to the act being committed. In this case, from a criminal legal point of view, the established model of free will can be understood as an attempt to fill the concept of guilt with material content. And this material content reflects free will.

So, if we argue that there is no freedom of will in criminal law, then what should be the basis when we are talking about bringing a person to criminal responsibility? What element will lie at its base?

Concepts that do not link the preventive functions of criminal law to free will are based on the fact that criminal liability is possible without guilt. Here, guilt is measured not by the conscious and cognitive abilities of the criminal, but by a general warning. In other words, free will is not a prerequisite for punishment, and the degree of punishment must be measured on the basis of the preventive needs of society.

Proponents of reformatting criminal law (without free will) proceed from the fact that it is the sanction of a legal norm that should broadcast guilt. Here, the function of punishment is to reproach for a certain action. Thus, the punishment must be proportional to the guilt of the act. Literally following the logic presented, it can be concluded that guilt should be defined as the commission of a crime "deserving of censure", and not a "guilty act". This focuses on the judgment of disapproval of the action, and not on the moral qualities inherent in the subject of the crime.

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[12] In this respect, the difference between the formulas used in legal systems where the concept of criminal responsibility is not exactly of the same meaning is clearly seen. "Ability to be guilty" corresponds to the current concept of responsibility, as well as the condition of guilt. "Responsibility" or "answer for" can be understood in a broader sense, which is promoted by modern determinists.

[13] W. Schild, cited; J. Didisheim, cited.

[14] M. Joite*, Willensfreiheit, schuldprinzip und grundgesetzliches menschenbild* [Free will, principle of guilt and the constitutional image of man] in Bucerius Law Journal no. 2/2013.

What is the result of this reformatting of guilt in practical terms? Only to exclude free will from understanding what constitutes guilt in a socio-psychological context. That is, there is no awareness, there is no guilt, but only a rebuke from society and the state as a "social contract". For law enforcement, professing the psychological concept of guilt is a serious blow[15].

IV. Will there be a new criminal law without guilt?

However, it still seems that freedom of will is currently mixed by researchers with freedom of action. Of course, the will can be causally caused by various motives. It is clear that an emotionally charged motive more than another will induce a person to commit a certain (in our case, criminal) action. But this does not exclude at all that such a motivated person can freely decide against this action, determined by his will.

But our consciousness is not identical to will, but simply a prerequisite for strong-willed action. Consciousness itself does not allow a person to act. It only creates an opportunity to compare motives with each other and decide which motive prevails. This operation is determined not by our consciousness, but by our feelings (actions)[16].

From this point of view, free will is the same coercion, but not external, but internal. A person forces himself to choose the best possible behavior and perform a certain act. Or conversely, when we talk about free will, we talk about the illusion of such freedom, because we make a decision under duress, but we do not realize this fact, believing that we are acting freely. In this regard, free will is unequal to the understanding of "freedom of action". Of course, today we proceed from the fact that moral and criminal responsibility is associated with the act of a person (a physical, imputed person who has reached the age of criminal responsibility). Nevertheless, it is possible to commit a certain act, but at the same time not be completely free. It is not a question of physical or mental coercion, i.e. external coercion, when the choice is small or not at all, but of the fact that a person may not want certain criminal consequences, but for various reasons internally agrees to carry out the act and even then criminal consequences occur. In this case, there is no complete freedom, it is retouched by various factors and circumstances.

Other arguments in this matter can be cited, referring to inconsistencies in criminal law. For example, if we are talking about a careless form of guilt, then the intellectual component of guilt does not provide for an element of awareness in criminal behavior at all. Does this mean that there is no free will with criminal frivolity and negligence? Or, nevertheless, free will is unequal to understanding freedom of action and these concepts need to be distinguished.

At the same time, new discoveries in the world of science, disputes between determinism and indeterminism remain as unresolved as before, even taking into account quantum and wave mechanics, the Heisenberg uncertainty principle etc. All this rather suggests that there are still uncertain areas that can be interpreted in different ways.

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[15] Z. Pavlovic, *About legality of online trials in criminal procedure,* in Journal of Eastern-European Criminal Law no. 2/2020, pp. 33-41; В.В. Хилюта (Hiluta), *Глобальная инструментализация уголовного права* [Global instrumentalization of criminal law], Moscow: Yurlitinform, 2020, pp. 31-43.

[16] K. Günther, *Hirnforschung und strafrechtlicher Schuldbegriff* [Brain research and the concept of criminal guilt] in Kritische Justiz no. 2/2006, pp. 116-132.

If we take the same results of the experiments of B. Libet and his followers, then they are primarily based on the fact that certain brain activity associated with conscious actions systematically preceded the conscious intent of a person, and numerous interpretations suggested that conscious will was not the reason for our actions, that we did not have free will, and therefore we cannot be held responsible. However, such conclusions had nothing to do with criminal law and responsibility, since the origin of the intention was irrelevant. Criminal liability requires establishing the ability of a person to act in such a way as to be able to accept the realization of an appropriate intention, taking into account knowledge of social norms that determine what is acceptable and what is unacceptable to him.

Neuroscience and its tools, especially brain imaging, can only prove permanent abnormalities, not temporary conditions that coincide with the time of events and have already disappeared in a criminal case in court[17]. Moreover, it was impossible to know whether the anomaly observed was prior to or subsequent to the crime. The thesis that turning to behavior is important for correctly interpreting brain activity becomes important when using data-based methods to "decode" the intentions or thoughts of the accused. However, "decoded" patterns of activity alone do not indicate whether the brain actually uses these patterns to perform a task or to achieve a certain cognitive goal[18].

Nevertheless, today it is quite obvious that the denial of freedom of will by ricochet beats on the principle of personal guilty responsibility and the very understanding of guilt in criminal law (also as a key sign of the crime). If there is no free will, then we are forced to state that there is no guilt and the crime itself.

What is the way out of all this if a person is not free in his act? Social prevention or therapy? To a certain extent, this can be allowed if someone stole a wallet from someone, and he was not free in his act, because following the theory of determinism, a person was held hostage by various factors and circumstances and in fact the brain controlled him, and not his will[19]. In this situation, it is possible to use elements of restorative justice and try to find a compromise, continue to prevent and prevent the commission of illegal acts etc. But if a murder is committed, how to be here? Is prevention permissible in this case or will it be about therapy only? The system of penalties, based solely on prevention, seems rather problematic, because it is not immune from security violations and excessive repression, the risk of increasing relapse. In the context of the reasoning of the supporters of determinism, a rather strange situation turns out: "the criminal is not responsible for the action, but still must answer for this action according to his motives".

In our opinion, behind all this legal discourse on free will lies one important detail, indicating that the task is to reset the criminal law itself, which will be based on

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[17] A. Bigenwald, V. Chambon, *Criminal responsibility and neuroscience: no revolution yet.* https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01406/full.

[18] It should also be noted that in German literature, Libet's experiment lends itself to fierce criticism, since, as indicated, B. Libet gave a tendentious description of his experiment and the "action of will" was actually equated with the "feeling" of muscle tension. (See: W. Schild, *op. cit.*). Waiting for momentum cannot replace the presence or absence of free will. Free choice is given only if the conflict between the different motives is to be resolved by reflection and weighing. If there is no conflict, if desire and reason coincide or if we are talking only about alternatives of equal value (for example, which book should be taken from a stack in a bookstore), then there is no need for a choice, so there is only one desire.

[19] I. Breuer, cited. Interestingly, in the spirit of the considerations expressed, these motives are controlled by neurons and that is why the offender is not to blame.

the principle of objective imputation, not subjective. All these arguments about the mutual smoothing of guilt, social therapy, the use of non-punitive means and elements of restorative justice in the presence of social conflicts in the criminal legal sphere seem to take us aside. Because the main idea that they are trying to convey to us in this way is the idea of security. That is, criminal law should no longer speak of guilt and punishment, but of danger and prevention.

In fact, this means that if a person commits a wrongful act (or worse, is able to do so), social protection and security measures (the principle of deterrence) should be applied to him in the framework of preventive measures and social reproach. This function (the application of social protection and security measures) remains only in the hands of the state. A crime in such a paradigm will be connected only with the committed act, and guilt will be of secondary importance (for if there is no free will, then this place will take an external element – social reproach on the part of society and the state). Any criminal turns into a sick person who needs help. The only question in this case is how, by whom and how the measure of criminal responsibility will be determined for such persons. It seems that history already knew such research.

All this can lead to the fact that the offender will be considered only as a combination of causes and consequences, which, in turn, should be under the causal influence of the State, based on the declared need for protection. In such a paradigm, no one will ask about the responsibility of the offender for his act (illegal act), still will try to find the most dangerous people in advance, and then take preventive measures. However, unlike charges of committing a crime, such a "danger test" can be carried out only in a vague space of probabilistic statements, and nothing more[20].

The arguments expressed by supporters of determinism, where there is no place for free will in the concept of guilt, push us to a situation of total neurodomination, in which social processes are not applied in the calculation, and priority is the experience of a neuroscientist stating that someone has too few frontal lobes in the cerebral cortex etc., the principle of deterrence and social protection should therefore be applied to such persons. Obviously, criminal liability without guilt is based on the principles of prevention and proportionality, where the center of gravity shifts towards preventive measures «*défense sociale*». However, in such a plane, not only the actions committed by the person are taken into account, but also the actions expected of him.

V. Instead of a conclusion

Thus, today criminal law is faced with the choice of whether to move it from a retributivist concept of law, in which the offender deserves punishment, to a consequentialist concept, where security, deterrence, prevention and treatment considerations prevail.

Of course, a truly scientific, mechanistic view of the nervous system makes the very idea of responsibility meaningless. However, should neuroscience really revolutionize criminal law? Neuroscience cannot create a revolution in jurisprudence, it can only improve existing practices in terms of stating mental disorders or differential diagnosis. Neuroscience results can influence social institutions, but only because they are also involved in their formation, persuade the population and take into account the resulting consequences. The notion of determinism put forward by neuroscience,

[20] K. Günther, cited.

reducing each of our actions to their neurological and unconscious causes and, therefore, treating them as simple events rather than deliberate actions, would seem to make it possible to allow alternative results to apply to the concept of "free will". If we translate this into criminal law, then it turns out that "criminal liability is not based on free will, but on practical, subjective and political considerations"[21].

Nevertheless, the institution of criminal responsibility lies in the ability of the individual to experience free will, a subjective sense of causal responsibility for his actions and their consequences. In this regard, criminal responsibility depends mainly on our subjective experience, the impression of being able to act or avoid action. Thus, freedom of action is an objective fact that is demonstrated by the behavior of people and the consequences of this behavior. Still, the brain does not commit any crime, and the illegal act is done by human hands.

Therefore, no scientific discovery, no matter how significant it may seem, itself does not require the overthrow or modification of social institutions, including punitive ones. Cognitive neuroscience and related disciplines (cognitive psychology, neuroeconomics etc.) will not change the paradigm of criminal responsibility and the principle of guilt, but can only inform this paradigm, in order to provide scientific foundations for understanding what freedom of will is based on and how to be with the principles of criminal law. Even assuming that a reasonable person will have several brain implants in the future, the criminal law will still remain unchanged. Only the social and legal norm that will affect only cases of objective responsibility (i.e. cases of inaction) can be subject to change, but actions will still be evaluated through the prism of subjective responsibility (i.e. the subjective ability to have a sense of free will, distinguish the good from the bad etc.).

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