EXTENDED PERSONHOOD - RETHINKING PROPERTY/PERSON DISTINCTION

ABSTRACT: In this paper I argue that we need to rethink the boundary between a person and its property. I will first motivate the claim that we should extend the boundaries of persons, and consider three different arguments offered in the recent literature with similar intentions: a) “Ship of Theseus” argument, b) “Continuity between physical persons and corporations as legal persons” and c) “Simple Extended cognition” argument. After addressing the shortcomings of these offered arguments I will present my own argument based on the Parity argument for cognitive extension.

KEYWORDS: Extended persons, Personal identity, Extended cognition

Introduction

Technological advancement and the growing use of bodily and cognitive prosthetics and other aids are steadily blurring the boundaries of our bodies and, arguably, our personhood. While there is an increasing number of legal cases in which the legal status of prosthetics and other artificial aids is questioned—for instance, whether a user of a prosthetic device deserves a different kind of compensation in case of its damage than in a case of a property damage—there is still no legal framework providing the general procedure for adjudication in these cases. This, in turn, creates an intuition that the law is falling behind. In other words, sometimes we have clear intuitions that a harm done to someone’s prosthetic device should not be treated as a damage to his car or his glassware, but on the other hand, law is not giving us firm guidelines how to proceed in these seemingly different cases. The problem, arguably, arises because of the narrow definition of a person used in a legal context. In this paper I propose a way for rethinking and for the extension of this notion which is based on the kind of argumentation used in the Extended cognition debate. Conclusions that I reach suggest that if certain conditions are met we can grant Extended personhood to hybrid, human-artifact systems, and treat the damage to some parts of the person’s property as violation of personal rights or even as a personal assault, depending

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on the decision should we treat the relevant piece of property as constitutive of that person’s personal identity or personhood.

It is important to note at the start that the highly interactive nature of technologically advanced apparatus, such as neural implants, TVSSs, even our smartphones, used for augmenting or restoring our biological and cognitive abilities is not going to be crucial in arguing in favor of extended personhood. Nevertheless, the high degree of integration of such devices with humans as biological entities and their technological complexity certainly helps to bring the problem to the fore, but it is not a necessary condition for considering an artifact to be a part of someone’s personhood or personal identity. As Clark notices in his introduction to *Natural Born Cyborgs* the crux of the argument is not about the character of the new technology.\(^2\)

[M]y goal is not to guess at what we might soon become but to better appreciate what we already are: creatures whose minds are special precisely because they are tailor-made for multiple mergers and coalitions. (Clark, 2003: 7)

On the other hand, it is a fact that highly advanced cognitive or biological aids, are more readily seen as integral parts of certain persons. Such is the case, for instance, with Neil Harbisson’s implant which allows him to hear colors. In literature and media we can even find claims that he is the “first government recognized cyborg” because the antenna on his head that serves as the receiver of the color input was not removed when his passport picture was taken. Although I consider such claims as a move in the right direction towards recognizing some parts of the environment as legally different from the mere property, they are also misleading us into thinking that the complexity of the connection between a human and an artifact and its hi-tech nature is essential for extension. The question is: What, if anything, separates Neil Harbisson from other users of artificial aids? Answering it will help us determine the extended boundaries of a person. One thing is certain, we cannot rely only on our intuitions about the integration. In order to create a viable legal framework for evaluating the legal status of particular artifacts we have to explore the nature of such connections and to determine on what grounds and reasons we can consider hybrid systems as instantiating personhood. Whether there is a legal difference between Harbisson’s implant, my iphone, or a notebook of an Alzheimer’s-stricken person is yet to be established.

Another important note has to be made. It is not the case that the current law is rigid in a way that precludes hybrid cognitive or biological systems from being treated as persons. Tradition of Western law is exactly such that it prescribes that laws should not be read as rigid or inflexible constructs, and that they should allow for taking into account various circumstances and specific contexts. In fact, there are some legal cases in which court rulings, at least implicitly, admitted for the possibility of extended personhood, as we shall see in the remainder of this paper. Thus, what I want to argue for is a) that such rulings are at odds with some parts of the written law and b) that there could be a systematic way of arguing in such cases, whether or not such a framework for adjudication is going

\(^2\) In Clark’s case it is an argument in favor of Extended cognition, and in ours it is an argument in favor of Extended personhood. The same principle applies to both theses.
to become a part of the written law or not.

The discussion and the argument for Extended personhood relevant for the change of legal policies, or the claim that a status of a person can be sometimes attributed to biological systems extended by appropriate artifacts, I am proposing, has three main steps.

1. First step consists in providing motivation for personhood extension and taking into consideration existing arguments in favor of this position: a) “Ship of Theseus argument” (Linda MacDonald Glenn, 2012), b) “Continuity between physical persons and corporations as legal persons” (Linda MacDonald Glenn & Jeanann S. Boyce, 2008), and c) “Simple Extended cognition” argument (Adam Carter & Orestis Palermos, 2014).

2. Second, I will examine the traditional notion of a person in a legal context, how it changed through time, and how it came to identify persons as biological entities of a certain kind. I will further show that the biological notion (defended by Olson, van Inwagen, Snowdon, and others) heavily depends on a mentalistic conception of a person (Locke, Hume, Dennett, Frankfurt, etc.), and that contrary to the usual view that these two conceptions stand in opposition, they could be combined in a more permissive notion by the application of Lewis’s argument for functionalism.

3. Last, I will use the Parity argument for cognitive extension, to show that some of the mental properties used for identification of an entity as a person or for determining personal identity, could be extended and therefore that persons could be extended as well.

1. Arguments for extended legal personhood

In this section I will try to motivate the need for the extension of personhood in legal context and examine some existing arguments in its favor. I will, further, show that all of these arguments fall short of providing a full account for the appropriate personhood extension.

As it was mentioned at the very beginning there is a growing need to address the question about the boundaries of persons. A person is most commonly identified with a biological creature—human animal—and it is seen as surrounded by the environment, some parts of which law recognizes as property. The law then makes a stark opposition between personal and property rights, and prescribes different sanctions for their infringement. Also, the modern notion of a person is partly defined as a negation of property, or as Kant pointed out “a person cannot be property and so cannot be a thing which can be owned for it is impossible to be a person and a thing, the proprietor and the property.” (Kant, 1965: 387). In a similar fashion property of one person is something external to that or any other
person, or so it is assumed. I want to challenge this assumption. While it is, at least after the abolition of slavery, a common opinion that persons cannot be owned, I want to argue that parts of a person’s property can be constitutive of that person.

If we look at the current legal practice, we can find cases where property damage was treated as a personal injury. This means that although there is no stable legal framework that is providing support in adjudication in such cases, jury and adjusters are prepared to grant a legal status to some artifacts different from the status of property in case by case adjudications. In “Case study: Ethical and Legal Issues in Human Machine Mergers (Or the Cyborg Cometh)” Linda MacDonald Glenn, bioethicist and practicing trial attorney, describes a case in which “Mr. Collins” was awarded a compensation for the damage of his MAD (mobility assistive device) that happened on the flight of Allways Airlines from Miami to San Juan, Puerto Rico (2012: 176, 179). The compensation in this case was not based on the usual regulations about the handling of the passenger’s property or even assistive devices such as wheelchairs, but on the argumentation presented to the jury and the adjuster in which it was insisted that the MAD is part of Mr. Collins as a person. The argumentation provided was of the “Ship of Theseus” kind of argumentation for personhood extension, which I will present in detail in the section that follows. While it is a fact that this argumentation was sufficient to grant Mr. Collins his compensation I want to argue that this argumentation was flawed in some ways and that it can be improved. I do not want to argue that Mr. Collins was not entitled to the compensation involved in adjudication in this case. I think that jury had the correct opinion in considering MAD as part of Mr. Collin’s personhood, but that the argument in favor of this opinion could have been made stronger and more general so it can be used in future adjudication and policy building. Thus, I find that the recognition of extended personhood exists, if only implicitly, but that is in dire need of regulation and better grounding.

This need is reflected in attempts to build arguments for personhood extension. The three kinds of arguments that I found in the literature on extended personhood in legal context can be summarized as: a) “Ship of Theseus”, b) “Continuity between physical persons and corporations as legal persons”, and c) “Extended cognition argument”. In my view all three of them are lacking in some respects to be fully successful.

1.1 Ship of Theseus argument

The “Ship of Theseus argument” is a strategy used to argue in favor of Mr. Collins and his right to be additionally compensated in the case of the damage inflicted to his MAD. In her (2012) paper, Linda MacDonald Glenn presents the case and argument in question.

The Ship of Theseus as recorded by Plutarch is a puzzle of identity. Plutarch asks us whether the ship which all of its parts have been replaced would still remain to be the same ship. Whatever the answer to this “paradox” is, a similar situation to that one described by Plutarch in Life of Theseus has happened at the beginning of XX century, and the question
about the identity of the ship named “Jack-O-Lantern” came to the court of law.

In the 1922 case New Bedford Dry Dock Company v. Purdy, Claimant of the Steamer “Jack-O-Lantern”, the question before the Court was, “[i]n rebuilding operations the test is whether the identity of the vessel has continued, or has been extinguished.” The appellee argued that because substantial portions of the vessel had been replaced and because the ship was now being used for amusement rather than as an auto ferry the previous identity had been extinguished and a new identity formed. (MacDonald, Glenn, 2012:178)

This real life case was not completely analogous to the original Plutarch’s description, as not all of the parts of the ship were replaced, and something was left intact. The court decided “that as long as the hull and skeleton of the original vessel remained in intact, the original identity was retained” (MacDonald, Glenn, 2012:179). Because this was indeed the case, “Jack-O-Lantern” survived as itself and continued to be in the eyes of the law.

The same argument was used in a case that involved a physical person – Mr. Collins. The MAD was considered to be a replacement part of Mr. Collins’s body that was crucial for his identity. The author also writes “who would Stephen Hawking be without his assistive devices?” (2012:177), emphasizing the role of these artifacts in constitution of someone’s personal identity.

As mentioned, this argument was sufficient for the jury and the adjuster to grant Mr. Collins additional compensation, but here are the reasons why I believe that this argument was flawed. The crucial point of the ruling of the court in the case of “Jack-O-Lantern” was that the hull and skeleton remained intact. While we can argue that this was indeed the case in determining Mr. Collins’ personal identity, this is a criterion that is much harder to use on humans than on ships. Because, what is the hull and skeleton in case of human persons in the first place? We certainly do not think about skeletal system of bones when we are thinking about the essential parts of one person. Answers to the question about the essential physical parts will depend on many metaphysical issues, and if we accept some forms of functionalism it is reasonable to think that even no physical part can play such a role, and that preserving relevant functions is sufficient for retaining identity.

Another worry considering the proposed argument as a universal framework for adjudication in the cases where artificial parts constitute parts of the person is raised by the possibility of enhanced humans. In the cases of enhancement the parts can be added and not replaced. We do not want to close the door a priori to the possibility that these enhanced humans are partly constituted as persons by their artificial aids. This is why I think that a different kind of argumentation should and can be offered in considerations of legal personhood.

1.2 Continuity between physical persons and corporations as legal persons argument

The second argument in favor of personhood extension that I found in literature insists on the continuity between physical and artificial persons. In Linda MacDonald Glenn & Jeanann S. Boyce, “Nanotechnology: Considering the Complex Ethical, Legal, and Societal Issues with the Parameters of Human Performance” (2008) authors are asking why shouldn’t
we consider technologically enhanced humans as persons if we are already recognizing ships and corporations as such (2008:272). Well, it seems that this is a valid question if we have physical, natural persons on one side (basically, humans), and fictional or artificial persons on the other (such as ships and corporations), why shouldn’t we count those systems partly natural and partly artificial, namely humans and their technology, as persons at the middle of the line connecting the first two? If croissant is a kind of sweet pastry, and so is a donut, there are no reasons for believing that cronut is not a kind of a sweet pastry, too.

In order to establish continuity there should be a property which all of these entities share and which is continuous along the line. It is said that there is such property and that is a property of being a person. All is well so far. But if it turns out that being a person is not a simple property, but a property that supervenes on some other properties, and that these properties vary in kind across the line then the simple continuity argument will not do the needed work. For example, color supervenes on light properties, namely its frequency. So if there is a color that supervenes on 450 nm wavelength of light or 606 THz and there is a color that supervenes on 495 nm wavelength or 668 THz, there should be a color of 472 nm wavelength or 637 THz frequency (given that such frequencies of light can exist), and maybe it is the shade of blue that Hume was asking about. But, if a property supervenes on different kinds of properties it is hard to see how can we establish continuity. For instance, “a good deed” can supervene on taking an old lady across the street, but also in planting a tree in the woods, but planting a tree in the middle of the street is not something that would qualify as a good deed. So what about the property of being a person? If it supervenes on physical properties maybe we can establish the needed continuity. If “being a person” supervenes on biological creatures such as humans, and on artificial entities such as ships, then an entity which possesses both kinds of properties, namely human-artifact entity, also possesses personhood. But this is not the case. While it is probably true that we attribute personhood to humans based on their biological/physical properties, this is not true of corporations and ships.

Artificial persons are not only man-made, but the notion of their personhood is also created artificially. Namely, the notion of *persona ficta* dates from the XIII century Roman law and pope Innocent the IV. It was introduced to save the infrastructure of the monasteries that was compromised by the monks’ vows of poverty. If the monks could not possess property, how will the monastery be supplied with food and other necessities? In order to solve this problem, the law was rewritten in order to count monasteries themselves as persons so they could be the owners of the property in question. Thus, it was the positivistic credo – that whatever the law prescribes or describes, and it is obeyed, it is so in the following legal practice and it does not have to be additionally justified in naturalistic or any other way – that enabled the consideration of artificial persons as such. If the law treats monasteries, corporations and ships as persons, they are persons based on what the law says, and practices that follow it. Ships are not persons because they are of a certain shape, physical nature of their parts, or just because they are artificial. Of course, we establish their identity through the physical identification, but they are considered as persons because law says
they are persons and imputes them certain rights and obligations. It is an open question, which I will address later, if the personhood is ascribed to humans solely based on their physical/biological make up. What is clear, though, is that there is no continuity of personhood based on the nature of constituent parts of different kinds of persons which is needed for securing the main claim of this argument which is mereological in nature.

On the other hand, even if the humans are recognized as persons in the same manner as artificial persons, namely, positivistically, there is still no room for simple continuity. The law recognized artificial persons, and humans, but it did not recognized human-artifact systems. There should be a separate account why should we recognize them as persons, independent from the continuity argument.

1.3 Extended cognition argument

The last argument in favor of personhood extension relevant for the legal practice that I want to consider is the argument that Carter and Palermos offer in their research presentation “The Ethics of Extended Cognition: Is Having Your Computer Compromised a Personal Assault?”. In arguing in favor of the extension of a person they focus on the definition of a bodily injury, and the claim that “[t]he body of the victim include all parts of his body, including his organs, his nervous system, and his brain. Bodily injury therefore may include injury to any of those parts of his body responsible for his mental and other faculties” (Lord Hobhouse, 1994, Regina vs. M. Chan Fook). They continue that not only bodily parts can play the described role – “being responsible for mental and other faculties”, and that we should count the damage to those parts of the environment/artifacts as personal assault as well. Namely, if our computer is constitutive or responsible for some of the mental faculties that we have, such as memory, we should include our computers in those parts of our bodies or the environment that if damaged constitute a personal assault. Although my argument, that I am yet to propose, will also rely on the functional properties of hybrid systems, and possibility that artifacts can be constitutive of “mental and other faculties” I think that Carter and Palermos’s argument is lacking justification of one crucial premise.

The proposed definition of bodily injury can be unpacked in a following manner.

1. The boundaries of a body of a person are the physical boundaries of its body,
2. There are parts of that body that are responsible for mental and other faculties,
3. If those parts of the body are damaged, harmed, or compromised, then the damage inflicted may constitute a bodily injury or a personal assault (there is a further question of the intent).

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4 “An entity recognized by the law as separate and independent, with legal rights and existence including the ability to sue and be sued, to sign contracts, to receive gifts, to appear in court either by themselves or by lawyer and, generally, other powers incidental to the full expression of the entity in law.” (Duhaime’s Law Dictionary)
5 For our purposes it is not important to state which are these other faculties, because we are going to focus only on the mental faculties.
From here Carter and Palermos go on to show that sometimes parts of the environment can play a suitable role and be constitutive of mental faculties. They use famous Clark and Chalmers’ (1998) Parity principle to show this. By Parity principle it is stated that:

If, as we confront some task, a part of the world functions as a process which, were it done in the head, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world is … part of the cognitive process. (1998:29)

Without going into the further justification of Extended cognition hypothesis that is based on this principle we can grant Carter and Palermos, that it is justified to claim that:

4. There are parts of the environment (beside the bodily parts) that are constitutive of cognitive processes and mental states, thus, playing a mental or cognitive role.

They take the definition of a bodily injury together with 4) as premises and they conclude:

5. If those parts of the environment that constitute cognitive processes or mental states are damaged, harmed or compromised, then such an injury can constitute a personal assault depending on the intent.

Carter and Palermos insist on the functional characterization of the relevant parts of the body, and simply infer that because these functional properties can be realized by non-bodily chunks of matter that they too constitute persons and qualify for legal consideration in the cases of personal assaults. But here are the two problems this kind of argumentation is facing.

Firstly, the given definition of a bodily injury is functionally phrased to exclude some parts of the body as relevant in the cases of a bodily injury. It would be out of place to legally prosecute your hairdresser because he cut your hair. Hair is part of our body, but does not play any relevant functional role. In other words, the definition is not there to include anything that plays a certain role, but to exclude those parts of the body that do not play those roles. So in order to include parts of the environment as relevant in cases of personal injury we should either challenge the premise that the body of a person is limited to its biological boundaries, or to give independent reasons to include non-bodily parts as constitutive of a person. I am going to follow the second route and challenge the legal premise that persons are identified with their biological bodies.

Secondly, even if we infer from this definition that specified faculties are essential for personhood, and that it is secondary that they are realized in our body, the given inclusion of environmental realizers would be too permissive and the thesis about the personhood extension would not be sufficiently grounded. There are just too many environmental factors which are responsible for mental and other faculties - books, pills, gym apparatus, etc. Even if we could exclude mentioned objects as not playing relevant functional roles, still
external realizers of any mental state would still constitute extension of the person according to Carter and Palermos’s account, because it is enough for “the part of the world” to satisfy the Parity principle in order to account for personhood extension. In other words, any cognitive extension would become a base for personhood extension, and an argument for extended cognition would automatically become an argument for extended personhood. This I find implausible.

To remedy these problems I will offer a way for rethinking the personhood in legal context which will be compatible with current legal practice, but also with the inclusion of hybrid, human-artifact, systems.

To end this section I will repeat some of the conclusions reached. The three offered arguments for inclusion of hybrid systems as persons in legal context of personal rights had different flaws. “Ship of Theseus argument” which stresses that the same entity perseveres as long as the “skeleton” stays intact, can be applied only if we have an account of which parts of the human body are essential for its identity which is, again, lacking. Also, this kind of argument cannot account for the cases of enhancement. Reasons for considering ships and corporations to be artificial persons are vastly different than those used to consider humans to be persons. Continuity would have to be secured on a common ground which is not offered in this case. In the end, Palermos’s and Carter’s argument is too simplistic and lacks the justification of the key, and very strong assumption that extension of every mental or cognitive state leads to personhood extension.

2. Concept of a person in a legal context

Law, as a body of rules prescribed, recognized, and enforced in order to regulate the actions of members of a certain community, applies to these members insofar they are recognized as persons. Persons and their actions in general are the object of law, and a person is identified as a bearer of rights and obligations which are prescribed by the law. In legal definitions a person is said to be a human being or an artificial entity such as a corporation which can bear rights and obligations excluding those which are dependent on emotions or intentions. Although a contemporary legal definition of a natural person is biological in kind, the concept of a person began its existence as a functional notion.

If we look at the history of this notion, we will find that a term persona originally designated a theater mask. A person is a certain role that a subject of law can assume, namely, a legal role. It is a kind of a functional role which is defined by relations described through determination of rights and obligations between different persons or persons and their property. Given this, we can ask a question what sort of an entity can assume such a role. A person has to be able to assume obligations and act accordingly so having consciousness, free will, rationality, ability to make free decisions, or soul were thought to be necessary preconditions for being a person. With respect to these criteria the extension of the term “person” changed several times, and a question of personhood or the issue of which crea-
tures or entities can be granted a status of a person still did not get its final answer. At one point in history persons were considered to be only free men, because slaves and women “were lacking” some of the needed properties in order to be granted a status of full personhood. Aristotle even writes about “natural slaves” in book I of *Politics*. Natural slaves are human beings which partly or fully lack an ability to act rationally. Although they were persons in secondary sense, as human beings, they lacked personhood in primary sense (Stent, 2002: 85). Luckily, this attitude changed through the course of time, slavery is abolished, and men and women are treated equally in the eyes of the law. As we have already seen, corporations (artificial persons) are also added to the list of persons though lacking some rights and obligations which are based on the ability to have emotions and to be capable of malice and bad intentions.

In order to make the definition of a natural or a physical person as inclusive as possible, and also more easily applicable, the law turned to a biological definition, and reasoning about the mental faculties was set aside. A person is determined by its birth and death, and it is a member of a human kind. This way all the members of the human kind are treated as persons – men, women, kids, but also those who suffer from some cognitive impairments, though the scope of rights and obligations attributed to them may vary. Even if this is an accepted definition of a natural person, the debate about its appropriateness is ongoing. Authors who defend the biological account (Olson, van Inwagen, Snowdon) often formulate their position in opposition to those who defend mentalistic accounts of personhood. They notice that mentalistic accounts face a particular problem, namely, insisting on mentalistic criteria such as Aristotle’s rationality may lead to chauvinistic positions on personhood. If the mentalistic criteria are essential for granting personhood those who are lacking some higher order mental properties or faculties, infants or mentally impaired, are not to be granted this status, and this is not permissible for a full theory of personhood in the view of the authors who defend a biological determination of personhood.

Although, the intention behind biological account of personhood was inclusivity, such an understanding of personhood *a priori* rejects non-biological or hybrid entities, and prefers human kind over all others, which makes it quite narrow and inflexible, and chauvinistic in a whole new way. Also, biological determination of personhood leads to treating personal identity as a thing of bodily identity. This is why contemporary debate about personhood centers on the questions about the rights of those entities which do not fit the biological definition – fetal rights (humans before birth), animal rights (members of other biological kinds), but also possible alien and enhanced human rights (humans which rely on artificial aids). If the only natural persons are human beings all of these potential legal rights could not be fully justified.

There are many authors which point to the problematic nature of biological determination of personhood. One of them is Daniel Dennett. He stresses that being a human or of a certain biological kind is not essential for being a person. He says that “we treat humanity as the deciding mark of personhood, no doubt because the terms are locally coextensive or
almost coextensive. At this time and place, human beings are the only persons we recognize, and we recognize almost all human beings as persons.” (Dennett 1978, 267) Instead of identifying persons with any specific physical or biological traits, which are contingent, Dennett points to different mental faculties and attitudes necessary for being a person, and gives a list of six such conditions for personhood:

1. Persons are rational beings
2. Persons are conscious beings
3. Personhood depends on the kind of attitude we take toward individuals
4. Persons must be capable of reciprocating this attitude in some way
5. Persons must be capable of verbal communication
6. Persons are self-conscious.

This attitude about personhood Dennett shares with Locke who wrote that “person” is [a] forensic term appropriating actions and merit; and so [belonging] only to intelligent agents capable of a law, and happiness and misery. This personality extends itself beyond present existence to what is past, only by consciousness; whereby it becomes concerned and accountable, owns and imputes to itself past action, just upon the same ground and for the same reason that it does the present.

(An Essay Concerning Human Understanding. Book II, chapter XXVII, §26)

While Dennett believes that humanity is not a “deciding mark of personhood”, leaving thus room for other species to enter into extension of personhood, Locke emphasizes that bodily identity is not essential for personal identity. He introduces the famous example of the prince and the cobbler in which the prince’s thoughts and memories, are transferred into the body of the cobbler to illustrate that point. Even though the prince has a different body now, in Locke’s opinion he has retained his identity as a person because psychological continuity has been retained. Setting aside the question if it is at all possible to transfer one’s mind into another person’s body, points that both Dennett and Locke make are in their essence the same. Being a biological creature of a certain form is not crucial for being a person, or for being a particular person, it is the mental properties which are deciding on this matter.6

It is not only philosophers that are dissatisfied with biological or bodily determination of a person. It seems that the written law itself stands against its own definition. In the area of personal rights law person is treated as including something more than just its physical form. Namely, in the mid twentieth century two kinds of rights are starting to be a special topic of law – human rights in the area of public law, and personal rights in the area of private law. The need for recognizing and protecting these rights arguably arose from the simplistic determination of a person and injuries to the person, and the experiences of the World War II. When it comes to personal rights it is not only that psychophysical properties of a person are taken into account, but also some of its social properties, and its “moral assets”. Personality of a person is defined as its life, health, appearance, level of culture, honor, talents, emotions, intelligence, etc., where personality is taken to be as

6 Locke is explicit in making a claim that there is a difference between a man and a person – a man is a kind of an animal of a certain form, and person is a being that thinks and knows of itself through time as identical.
what makes someone a particular person. In accordance with this law prescribes financial sanctions in cases which do not only present a physical harm done to the body of a person, but also in cases of injury of someone’s honor or talents or alike. In these formulations it is at least implicitly suggested that what constitutes a person is not only its physical body but a further set of worldly and social connections. Damage to someone’s honor does not have to be coextensive with the damage done to his body.

To summarize, it seems that there are two opposing accounts of personhood, mentalistic (psychological) and biological (essentialist). They give different criteria for establishing the status of being a person, as well as the criteria for establishing personal identity. Both of these accounts have their limitations. Mentalistic account faces the problem of not including infants and those lacking appropriate mental faculties, while biological account favors human kind over all others. We want to address the nature of this opposition, and try to reconcile these accounts. The new account should be more inclusive, but at the same time it should keep the main intuitions of both, mentalistic and biological, views on personhood.

If we even briefly look at the history of development of the notion of (natural) personhood we can find some striking similarities with the history of the accounts about the mental. This is certainly not accidental, because understanding of what is constitutive for a person heavily depends on how we understand what constitutes mental properties. So, hopefully a type of a resolution of frictions and problems in one area of thought could be found in another.

We can broadly distinguish functionalist and realizer or reductive accounts of personhood and mentality throughout the history of philosophy. For Aristotle soul is identified by its functions: growth, locomotion, perception, and intellect. The soul is “a form of the body” as “the soul does not exist without a body and yet is not itself a kind of body” (414a20ff). Similarly, person is an entity which has a function of acting rationally. But for Plato, soul was something independent from the body, detachable from it, and able to change different bodies and still persist through time. In modernity, in Descartes writing we find that the soul is a special kind of stuff, namely, res cogitans, different from the matter, and the soul or this special kind of thing is accountable for personal identity. On the other hand, Locke did not think that the immateriality of soul is crucial for personal identity, but held that a special kind of function, psychological continuity, is what distinguishes a person as such. In the mid twentieth century debate physicalism became the dominant ontological position so the theories turned to identifying mental properties with physical, brain properties, and to identifying persons with their biological bodies.

What is important to note is that functionalist and identity accounts are not, necessarily, opposing views. They could be seen as theories or hypotheses on different levels of description. While functionalists focus on higher order properties, and are not interested in types of stuff which realize these properties, those who focus on realization identify the structures which are responsible for the higher order properties. The conflict between these two types of approaches begins when they take their insights as metaphysical claims about the nature of their subject, and insist that it is only the appropriate functional roles or
specific physical realization. Persons or mental states are not simple physical objects, so in identifying physical realizers we have to be led by some higher order criteria. On the other hand, staying on this higher order level does not give us guidelines how to causally manipulate these entities. This is why we should look at those accounts which combine both perspectives. Problems of non-inclusivity that both mentalistic and biological accounts of personhood face, could possibly be overcome if they are integrated in a single approach which shares their main assumptions.

David Lewis was dissatisfied with some of the implications of both identity theory of mind and functionalism. While the first could not account for the hypothetical Martian mental states, the second one was unable to regard Madman’s brain states as appropriate mental states. These consequences are analogous with those of biological and mentalistic treatments of personhood. Lewis’s solution was to endorse both approaches. He proposed that functional properties are used for identification of typical realizers of mental properties in a specific population. When those realizers are identified they are considered to instantiate a particular mental state or property even if in a particular case this state or a property does not play a relevant functional role. Mental states are physical states but in order to discover what sort of structures they are we have to be led by higher order criteria, and they can be satisfied differently in different populations. It is only contingent that mental is identified with neural, just as it is contingent that persons are humans. We want to advocate an analogous conception of a person which rests on mentalistic criteria to identify a kind whose members are to be granted a status of being persons. Such an account should permit hybrid and other suitable sentient kinds to qualify for personhood, but also include members of those kinds who are lacking these properties per se. This way we can override the shortcomings of biological and mentalistic definitions of persons, as based on mentalistic criteria we can include other species except homo sapiens, but also infants and mentally impaired into the extension of “persons”.

The offered account is provisional, and rests on Dennett’s conditions for personhood and Locke’s criteria on personal identity. A person is a being that satisfies six proposed conditions for personhood, or any other member of the kind whose normal population satisfies these conditions. The constitutive parts of such a person are responsible for realization of her bodily functions and those properties which are essential for her personhood.

3. Improved argument for Extended personhood based on Extended cognition hypothesis

In section 1.3 I described one possible argument for personhood extension based on the extended cognition hypothesis. I found that proposed argument lacked a justification of a crucial premise, that is, justification of the claim that realizers of all extended cognitive processes, or all states responsible for mental faculties, constitute parts of a relevant person. The functional definition of a bodily injury, used as a starting premise for this argument, started from well-defined physical boundaries of a person, and then proceeded
to functionally identify those parts of the body which are crucial for its vital and cognitive functions. I tried to show that it is not enough to point to the fact that there could be extended states or processes which play those same roles in order to argue for extended personhood. An independent account is needed to show why those processes are constitutive of that person in the first place. Playing a certain role, like enabling vital functions is not by itself sufficient, because Sun plays that role as well, neither is it sufficient to point that the process is cognitive or mental. Proposed argument was far too permissive. It would allow, for example, for realizers of any extended dispositional belief to count as parts of that person. An argument for extended mind or extended cognition is not automatically argument for extended personhood, because it is not clear why would every particular mental state or a cognitive process be constitutive of the relevant person. Forgetting particular pieces of information, whether they are internally or externally realized, does not have to be detrimental to personhood nor personal identity of that person. This is why a crucial amendment to this argument is needed.

I want to argue, given that the hypothesis of extended cognition is correct, that if hybrid systems realize cognitive processes which are constitutive of properties and capacities essential for calling someone a person, or for determining his personal identity, then we should count the parts of the environment involved in its realization as parts of that person. The argument for the extended person can be summarized as follows:

1) A person is a rational, decision-making, conscious, and self-conscious being, capable of intentionality and verbal communication.

2) Personal identity is dependent on psychological continuity, and an ability to remember past experiences.

3) Parts of the world which are constitutive of the processes and states responsible for the faculties essential for considering a being to be a person (1), and considering it to be a particular person (2), as well as those physical structures responsible for this being’s persistence, are parts of that being as a person, and as an individual person. Typical kinds of realizers of relevant faculties are also to be considered part of one person even if they are malfunctioning.

4) All parts of a person are deeply integrated in a single system.

5) Sometimes parts of a cognitive system that instantiates personhood are extended into the environment.

6) There are extended persons.
1) and 2) are expressions of two general views on personhood and personal identity. These views are certainly open to criticism (Olson 1997; Shoemaker 1984; McDowell 1997), but I find that the listed criteria can be treated as necessary conditions for attributing personhood and establishing personal identity, because they represent a metaphysical foundation of attributing rights and obligations to a subject. The question remains, because of the normativity of the notion of a person and some of the listed conditions, are they sufficient and could we unquestionably find physical structures that realize them. These premises, 1) and 2), together with the realizer-functionalist premise 3), nevertheless, give us guidance in identifying appropriate parts of a person. In many cases the question about whether a certain physical part belongs to a person as such will be unequivocally answered, and I believe that some of these cases will support the thesis of extended personhood. Premise 4) is a safeguard against overextension, because premise 3) does not give us any further specification of the kind of realizers which could be taken in consideration – they could potentially be biological, but also artifactual. We have already seen that the functional definition of a bodily injury owes its success to previously identified boundaries of the body. It is easy to determine the boundaries of biological bodies, and then to establish which parts of such a body play relevant roles. In case of functional definitions of mind and cognition, we do not have such previous boundaries (taken that we abandoned “neural chauvinism”), and there is a danger of overextending systems which realize mental and cognitive properties. This is why a number of authors propose further conditions apart from the Parity principle when considering extended processes. Clark and Chalmers (1998) offer “trust and glue” conditions, while Menary (2010), Sutton (2010), and Sterelny (2010) focus on various dimensions of integration of the relevant parts into a single system. This takes us to the final premise, limited extended cognition hypothesis, that sometimes processes which instantiate crucial properties for attributing personhood to a being, or establishing his personal identity, extend into the environment over the boundaries of a biological body. In the remainder of this paper I am going to briefly describe what is claimed by the extended cognition hypothesis, as well as two particular attempts of argumentation in favor of extended personal identity and extended moral agency which share some assumptions with my own account.

3.1 Extended cognition hypothesis

The hypothesis of extended cognition owes its current form to the work of several authors from the mid and late 1990s, most prominently to Edwin Hutchins’s *Cognition in the wild* (1995) and Andy Clark’s *Being there* (1997), and “The extended mind” coauthored with David Chalmers (1998). At the time the hypothesis was often seen as radical.

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7 McLaughlin (2006) makes a distinction between role-functionalism, and realizer-functionalism based on their commitments about the level at which they identify mental states.

8 Functional and integrative approaches to Extended cognition are sometimes taken to be two separate approaches called “first” and “second wave” of Extended cognition. We find them to be complementary…
from both critics and proponents (for criticism see Adams and Aizawa 2001), although it already had many precursors in both philosophy and science.\(^9\) Today the hypothesis is gaining ever more support, mainly from philosophers (Wilson, Wheeler, Menary, Sutton, Rowlands, etc.) who substantiate their position with empirical evidence about the role of gesturing in verbal communication (Clark 2008), offloading of cognitive burden into the environment in instances of calculation and decision-making (Heersmink 2017), external props in remembering (Wilson 2004, Rowlands 1999), etc.

At the heart of the extended cognition hypothesis is a functionalist premise, the Parity principle, according to which an extended process should be counted as cognitive in so far as it functions as a process that we would call cognitive were it done in the head. The extensive literature shows that there is evidence in support of tight causal couplings of the parts of the environment to the traditionally recognized cognitive subject which realize functional roles used to identify mental and cognitive states and processes. Such couplings can occur in performing “epistemic actions” (Kirsh and Maglio 1994; Clark and Chalmers 1998), where a subject changes an environment in such a way which in turn influences and changes cognitive processes of the subject. These couplings often yield a functional gain for cognitive functioning of a subject, especially if there was previous cognitive impairment. Clark and Chalmers originally formulated the thesis in relatively modest terms in claiming that at least sometimes cognitive processes extend, while Hutchins (1995: 356), for instance, claimed that the very computational paradigm in cognitive science which deprived the cognizer of his eyes, ears, arms and his environment, mistakenly postulated that “the computer was made in the image of the human” (Simon and Kaplan 1989) instead of human together with his culturally constituted material environment in which many representations are stored. Regardless of the scope of the thesis about the extension all proponents share the common assumption that cognition is deeply embodied and that it heavily depends on the body and the environment of the cognizer. Cognitive capacities evolve not only through biological processes but also in partly due to cultural evolution and active involvement of humans in changing their environments and creating tools which alter and aid their cognitive processes.

The paradigm case of extended cognition is the case of Otto who suffers from Alzheimer’s disease and his notebook (Clark and Chalmers 1998). It is argued that information stored in his notebook play the same functional roles as dispositional beliefs stored in the long term memory of healthy subjects. This claim is corroborated with the example where Otto’s “belief” about the location of MoMA functions in the same manner as Inga’s belief about the same location, even though Otto’s belief is stored externally and Inga’s internally. Beside common functional roles identified by functionalist about the mental the information stored in the artifact has to fulfill further conditions later called “trust and glue” conditions. Namely, the notebook should be a constant in Otto’s life (readily available), information retrieved form it should be more-or-less automatically endorsed, information should be

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easily accessible and previously consciously endorsed. These conditions should be seen as further conditions which ought to secure integration of the artifact into the cognitive system where its use becomes transparent to the user. There are many different criteria of integration offered by various authors (Clark 2003, Sutton 2010, Menary 2010, Palermos 2014), but as Heersmink notices (2017) the integration will depend on a number of dimensions and they include “the kind and intensity of information flow between agent and scaffold, the accessibility of the scaffold, the durability of the coupling between agent and scaffold, the amount of trust a user puts into the information the scaffold provides, the degree of transparency-in-use, the ease with which the information can be interpreted, amount of personalization, and the amount of cognitive transformation”. This makes “integration” a vague term, but that only means that sometimes we will have more trouble in determining whether an artifact is sufficiently integrated or not, while there will be many cases in which we would be able to unequivocally answer the question about its integration.

3.2 Extended personal identity and extended moral agency

In support of my argument for extended personhood I want to add two examples of similar reasoning found in the recent literature. Wilson and Lenart (2014) give an argument for extended memories and constitutive role of narrative memory for personal identity based on the described example of Otto and Inga. And Heersmink (2017) investigates the possibility of extended moral agency.

Wilson’s and Lenart’s argument shares some variations of the stated premises 2), 3), and 5), although they do not focus on criteria for personhood as such and the integration condition, which is reflected in their conclusions about the role of group memories in constituting personal identity. Integration condition, on the other hand, plays a crucial role for our purposes of finding new boundaries of individual legal persons, so I find it to be a necessary addition to the kind of argument these authors propose. So even though Wilson’s and Lenart’s conclusions about the possible realizers of relevant memories for constitution of personal identities will differ from ours, and will be much more inclusive, their argumentation at least partly supports my own argument. The difference is that their argument allows for distributed and embedded cognitive processes to count as constitutive, while we stop at integrated extended processes. They are also hesitant about the possibility of extending persons and selves (although name several authors who are sympathetic to this view Clark 2003, Lindemann 2010), and claim that extension of personal identity does not imply personhood extension. This is to be expected as they allow for distribution of constitutive memories over many different subjects, but take that the person has clear spatio-temporal boundaries. I, on the other hand, take personal identity to be a narrower concept, which helps identify this spatio-temporal object as an individual person, and whose identificational marks are parts of that person.

After considering biological criterion for personal identity such as Olson’s (1997, 2003), which insists on persistence of a thing which is a member of a certain biological
kind, and substantive view on personal identity which rests on postulating immaterial egos independent from both psychological and biological properties, and concluding that the first view does not capture the moral aspect of personhood, while the second one does not give criteria of re-identification of a person, they turn to neo-Lockean views on personal identity. According to such a view psychological continuity or connectedness plays a crucial role in identification of a person. Wilson and Lenart notice, that neo-Lockean approach to personal identity has also been endorsed as a guiding principle in some areas of clinical and cognitive science research, and not only in philosophical discourse. “Split brain cases” in which corpus callosum is surgically severed are sometimes reinterpreted as cases in which now two persons “reside” in one body (Puccetti 1973) based on the differential recognitional behavior in modally different stimulations. “Dissociative identity disorders” are sometimes recognized as cases where there is less than one person in one body (Hacking 1995) based on evidence of the disintegration of the self into “multiples” with isolated narrative memories. And cases where different cognitive abilities were enhanced by drugs or voice modulation (Elliott 2003) were seen as cases of restoration of selves based on personal narratives. Although starting from a similar neo-Lockean perspective on personal identity, Wilson and Lenart want to show that traditional neuro-centric view, that neural activity should be the sole focus in clinical or cognitive research of personal identity based on memory and psychological continuity criteria, is not the only contender. Namely, they build their argument on the extended nature of some memories, where they single out narrative or autobiographical memory, and show that this kind of memory can be extended in at least two ways – by cognitive offloading into the environment, such is the case with elderly people who remember they daily routines only in familiar surroundings (see Dennett 1996; Wilson 2004), and by group dynamics, where co-rememberer plays a role in a construction of a relevant narrative memory. They conclude that personal identity can have wide realization based on the extended nature of some narrative memories.

While Wilson and Lenart argue in favor of the extension of a notion that I would like to extend as well, although taking it in a much looser sense and allowing for extension even in the cases where deep integration of constitutive parts does not exist, Richard Heersmink (2017) starts from the integration premise in an argument for extended systems, but explores a different though connected concept to personhood and personal identity. Namely, he investigates connections between distributed cognition and distributed morality theory in order to establish could artifacts and extended systems that incorporate them be granted moral status or moral agency. Heersmink’s reasoning shares with us an important assumption about the role of integration in evaluating moral status and moral agency of artifacts and hybrid systems, and concludes that deeply integrated hybrid systems could be attributed with moral agency, while artifacts could have moral relevance or status regardless of the fact that they cannot themselves been granted moral agency. Moral agency can be attributed to hybrid, human-artifact, systems based on the role of artifacts in moral reasoning and decision-making and the degree of the integration of the artifact.
Again, working memory is singled out for its role in moral cognition (April Martin, Zhan-
nna Bagdasarov and Shane Connelly 2015) and the possibility of its extension by cognitive
offloading into the environment, as well as use of cognitive tools such as ethical matrices.
On the other hand, while artifacts lacking central control for actions cannot be granted
moral agency they still have moral relevance in a sense that damaging, altering or stealing
an artifact which is deeply integrated in a hybrid cognitive system should be ethically on
par as tempering with biological mental states of cognitive subjects. Heersmink quotes
Clark and Chalmers, Levy and Søraker in illustrating this point who in different ways
grant moral status to artifacts. Clark and Chalmers say that parts of the environment can be
ethically treated as parts of a person (1998), Levy points that neuroethics should treat ex-
tended mind analogous as it treats pharmacological enhancement of the brain (2007), and
Søraker claims that “the case with Otto’s notebook suggests that information and informa-
tion technology can have moral status, but only if they are constitutive and irreplaceable
in a strong sense” (2007: 14). I see these claims as reflecting my own standpoint on this
issue, but I add that special legal, or ethical, treatment of such parts of the environment
rests on their constitutive role for personhood and personal identity, in other words, I take
“constitutive and irreplaceable in a strong sense” to mean such that without these external
parts an entity would not be a person or a person that he is.

If we go back to the argument we proposed someone could ask why not stop at the
integration condition, isn’t it enough to secure the boundaries of the person, why do we
need to specify further functional roles? The answer is: “Yes, and no”. If we recall the
definition of a bodily injury, it emphasized that the relevant parts of the body have to play
certain functional role in order to be legally relevant. Removing hair, parts of the nails,
burst appendix, dead cells or alike would not constitute a bodily injury. In the same man-
ner we can allow that all of the parts of the integrated extended system are parts of that
person as a particular spatio-temporal being, but not all of these parts have the same legal
or moral relevance. Destroying a page in Otto’s notebook where he kept his grocery shop-
ning list for last months trip to the store should not be legally treated in the same manner
as destroying the whole notebook or pieces of it where he stores some core memories. It
should be considered as property damage, but not as a personal assault, given that there
was no attempt to destroy other pages as well, intimidate Otto, or similar. This is why I
want to insist on both functional conditions, like Wilson and Lenart, but also on integra-
tion conditions, like Heersmink.

**Concluding remarks**

An integrated hybrid system whose external parts play a relevant functional role for
constituting personhood or personal identity should be treated as a person and the damage
to both its internal and external parts which play these roles should be treated as personal
injury or infringement of personal rights. My intention was not to list objects or artifacts
which can play such a role, but to offer a framework for adjudication in particular cases where there is a suspicion that individual’s rights have been violated. As described in section 2, law is explicit in identifying natural persons with a body of a human, but in some of its parts, such is the personal rights law, calls upon mental abilities and cultural traits in identifying moral assets of one person which are seen as parts of that person and not merely her property. I consider that identification of natural persons with human kind is contingent and dependent on mentalistic criteria which I offered in my hybrid account of personhood that combines biological and mentalistic approach into one. As I argued, endorsing such a view would allow for considering hybrid, human-artifact, systems as entities which instantiate personhood, and legal protection of those external parts on which these hybrid persons rely in cognitive functioning. The question could a similar argument be used to argue in favor of extension of bodily functions which enable a persistence and normal functioning of a body of a person was not considered, but I believe that a similar line of argumentation could be used in extending this account to biological functions as well.

In conclusion, the proposed argument has several advantages over the existing arguments for personhood extension: it does not use the problematic notion of corporate personhood, the suitable parts of the property do not have to be replacements in the proper sense of that word, and it is less permissive than Carter and Palermos’s argument which grant that any extended cognitive state should constitute personhood extension.

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**Prosireno sopstvo - ponovno promisljanje distinkcije svojstvo/osoba**
(Apstrakt)

U ovom radu zastupam tezu da je potrebno ponovo promisliti granice između lica i njegove svojine. Prvo ću motivisati tvrdnju da je potrebno proširiti granice lica i razmotriću tri različita argumenta koji se mogu naći u recentnoj literaturi a koji imaju slične intencije: a) argument “Tezejevog broda”, b) “Kontinuitet između fizičkih lica i korporacija kao pravnih lica” i c) “Jednostavni argument proširene kognicije”. Nakon isticanja nedostataka ponuđenih argumenta izneću sopstveni argument baziran na argumentu pariteta za kognitivno proširenje.

Ključne reči: proširena lica, lični identitet, proširena kognicija