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To cite this article: Tomasz Żuradzki & Piotr Grzegorz Nowak (2019) Withdrawal Aversion as a Useful Heuristic for Critical Care Decisions, *The American Journal of Bioethics*, 19:3, 36-38, DOI: [10.1080/15265161.2018.1563656](https://doi.org/10.1080/15265161.2018.1563656)

To link to this article: <https://doi.org/10.1080/15265161.2018.1563656>



Published online: 21 Mar 2019.



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Withdrawal Aversion as a Useful Heuristic for Critical Care Decisions

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While agreeing with the main conclusion of Dominic Wilkinson and colleagues (Wilkinson, Butcherine, and Savulescu 2019), namely, that there is no moral difference between treatment withholding and withdrawal as such, we wish to criticize their approach on the basis that it treats the widespread acceptance of withdrawal aversion (WA) as a cognitive bias. Wilkinson and colleagues understand WA as “a nonrational preference for withholding (WH) treatment over withdrawal (WD) of treatment” (22). They treat WA as a manifestation of loss aversion and refer to Kahneman and colleagues (1991), which defined this effect as follows: “the disutility of giving up an object is greater than the utility associated with acquiring it” (194). In a previous work, Wilkinson and Savulescu understood nonequivalence between treatment withholding and withdrawal as a reflection of slightly different, although related, phenomena: status quo bias or omission bias (Wilkinson and Savulescu 2012, 130–131). In neither of these two papers do they describe precisely the relation between these well-known psychological effects and WA, nor do they explain why they treat these effects as examples of nonrational preferences, despite the fact that these issues have been the

subject of wide-ranging discussions on the intersection of psychology, economy, and philosophy.

Wilkinson and colleagues claim that the acceptance of WA implies that medical staff require more reasons to stop treatment than to not start it, and the authors assume that WA might lead to some harmful effects: On the one hand, doctors may prolong harmful or nonbeneficial treatments; on the other, doctors may be “unduly restrictive in providing treatment” (23), because they might think that it would very difficult to stop the treatment that has already started. Since these are empirically testifiable effects (i.e., whether the acceptance of WA by medical staff leads to alleged harmful effects or not), one would expect references to empirical research. Unfortunately, no single reference is given, and both alleged harmful effects of WA are described in a highly hypothetical and imprecise manner (WA “may have the effect,” “may mean,” doctors “may decide”). Moreover, in both cited papers they build their argumentation on highly idealized cases (in the recent article, on the example of Paula and Theo) where all parameters, alternatives, consequences, and probability distributions are predefined and well known by agents (e.g. “Paula

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currently has a 40% chance of survival and (if she survives) has a 15–20% chance of severe neurological impairment,” 22). The authors also assume that when doctors’ decisions reveal WA, it happens because of their pure preference for withholding treatment over withdrawing of treatment as such (with the exception of four special situations, one of which we discuss in the following), and not because of some other relevant features of the situation.

In contrast, we believe that treating WA as a cognitive bias or a nonrational preference is based on the misapplication to the moral domain of Kahneman and Tversky’s (1979) prospect theory. It also represents a broader worrisome tendency on the part of many consequentialist-oriented scholars who try to reduce nonconsequentialist moral reasons to cognitive biases (cf. Greene 2014). In our opinion, the acceptance of a higher threshold to WD than to WH does not have to mark the acceptance of nonequivalence as such. When doctors reveal a WA preference in their everyday routines, they do so because a WH situation may have some features, all things considered, that are more desirable than a WD situation. In other words, WA should be understood a “fast and frugal heuristics” (Gigerenzer et al. 2011) helpful in distinguishing these situations when “other things are not equal,” in particular when factors such as intentions, responsibilities, decision costs, attachments to the patient, or respect for autonomy make a real difference between WD and WH.

There is not surprise for us that there is “a disconnect between ethical theory and the views of health professionals” (22), since health professionals do not decide upon highly idealized cases like Paula and Theo, but must make fast decisions through the fog of several layers and types of uncertainty or ignorance, as well as their own cognitive and emotional limitations. In the real world, using a simple WA heuristic outperforms informationally rich strategies preferred by Wilkinson and colleagues. In our understanding, reliance on WA seems fully understandable and rational, because it enables effective responsiveness to the normatively relevant features of a very complicated critical care situation.

Relying on the concept of “fast and frugal heuristics” is also indispensable if we want to make sense of the notion of “bodily integrity non-equivalence” proposed by Wilkinson and colleagues as a factor that makes the situation that “other things are not equal” in regard to WH and WD (25). The body in question here cannot be equated with the human organism, since the commonsense division of human organism and the external things is not based on any consensus in the philosophy of science (Stencel and Proszewska 2018). The only consensus in this debate is fragile, and concerns the fact that a living human organism is an “integrated unity” (President’s Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research 1981). However, when it comes to the fine details, it is evident that this notion is extremely unclear. One of the famous attempts to

operationalize it in the context of end of life care was provided by Alan Shewmon:

“Integrative unity” is possessed by a putative organism (i.e., it really is an organism) if the latter possesses at least one emergent, holistic-level property. A property of a composite is defined as “emergent” if it derives from the mutual interaction of the parts, and as “holistic” if it is not predicable of any part or subset of parts but only of the entire composite. (Shewmon 2001, 460)

In light of this passage, we should notice that an example of a property that constitutes an important proof of X’s having the status of an organism is the maintenance of homeostasis (for more comprehensive list of such properties see Shewmon [2001], 467–471). It is an emergent property, since there is no distinct organ responsible for homeostasis, and a holistic one since it is predictable only of the entire whole (Shewmon 2001; Nair-Collins 2018). To pursue this line of argumentation further, let us notice that the functioning of some organs in the body is nevertheless of greater importance in regard to presence of emergent and holistic properties, such as maintaining of homeostasis, than the functioning of others. This might be said of the role of the medulla oblongata (the part of the brainstem where the respiratory centers are localized in), in contrast to, let us say, the functions of a leg. Humans with a compromised medulla oblongata cannot maintain homeostasis (and perhaps cannot have any other holistic and emergent properties since they deteriorate rapidly without breathing). Yet even patients with this part of the brainstem being irreversibly damaged might maintain homeostasis, and therefore might be organisms, if they receive the “prosthesis” of brainstem respiratory centers (i.e., a ventilator). In consequence, it might be said that ventilator-dependent patients might only be perceived as living organisms when they are considered as wholes consisting of their body (in the commonsense understanding of this word) and working ventilators. Only then would they have at least one emergent and holistic property.



This conclusion is of great practical importance. If “bodily integrity non-equivalence” is really among the factors that mean that WH may have an advantage over WD, and if the body in question here is an equivalent of a human organism in a scientific sense, it follows that it may be better not to connect patients to ventilators than to disconnect them, since disconnecting a ventilator would constitute an infringement of the patient’s bodily integrity. This is probably not what was intended by Wilkinson and colleagues when they provided a list of factors that might mean that “other things are not equal” with respect to WH and WD. We suppose that the mere notion of “human body” in everyday speech constitutes some kind of “fast and frugal heuristic” aimed at optimization of the results of human conduct under uncertainty about the values of different options, as well as the uncertainty about the mere biological facts.

Additional support for such a conclusion comes from the other concept of organism developed in the context of end-of-life care. This concept, proposed among others by Julius Korein and Michael Nair-Collins, states that living organisms are systems capable of reducing entropy inside themselves by maintaining the homeostasis of extracellular fluid. From such a perspective, the essence of organisms is that they are capable of resisting the chemical and thermal equilibrium of an environment (Korein 1978; Nair-Collins 2018). This property distinguishes them from inanimate things, such as a hot cup of tea, which inevitably cools to the temperature of its surroundings. Taking this view into account, it is even easier to realize that ventilator-dependent patients might only have the status of organisms if they are considered as wholes together with ventilator. Only as such wholes are they capable of entropy reduction. Without ventilators, the fight against entropy increase is impossible, and the body would soon reach the state of *algor mortis* (i.e., it will reduce in temperature to match the surrounding ambient temperature, like a hot cup of tea left on a desk).

FUNDING

Tomasz Żuradzki was supported by a grant no. 2015/17/B/HS1/02279 from the National Science Centre, Poland. Piotr Grzegorz Nowak was supported by a grant no. 0068/NPRH4/H2b/83/2016 from the Ministry of Science and Higher Education in Poland (National Programme for the Development of Humanities) awarded to Tomasz Żuradzki. The authors contributed equally to this work. ■

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