This article has been accepted for publication in the *Journal of Medical Ethics* (2024) the Version of Record can be accessed online at https://doi.org/10.1136/jme-2024-110459.

Defending the disease view of pregnancy: A reply to our critics

Joona Räsänen[1] & Anna Smajdor[2]

[1]*Department of Philosophy, Contemporary History and Political Science, and Turku Institute for Advanced Studies, University of Turku, Finland.*

[2]*Department of Philosophy, Classics, History of Art and Ideas, University of Oslo, Oslo, Norway*

Abstract:

We recently suggested that there are both pragmatic and normative reasons to classify pregnancy as a disease. Several scholars argued against our claims. In this response, we defend the disease view of pregnancy against their criticism. We claim that the dysfunction account of disease that some of our critics rely on has some counter-intuitive results. Furthermore, we claim that our critics assume what needs to be argued for: that the primary function of our sexual organs is to reproduce. Since only a small percentage of sexual intercourse leads to pregnancy, it is far from obvious that reproduction is the primary biological function of our sexual organs. We also claim that while taking pregnancy itself as a reference class could avoid the conclusion that pregnancy is a disease, the strategy is problematic since it renders the Boorsean approach to disease and health circular and effectively deprives it of any utility in determining whether a particular phenomenon is a disease or not.

Introduction

In a paper published in this journal, we argued that since pregnancy shares many similarities with conditions we normally classify as diseases, there are good reasons to classify pregnancy as a disease.[1]

Several scholars have argued against our proposal. Nicholas Colgrove and Daniel Rodger claim that, based on the dysfunction account of disease, pregnancy is healthy and therefore not a disease.[2] Paul Rezkalla and Emmanuel Smith defend similar claims,[3] and Teresa Baron questions the normative benefits of our approach.[4]

In this response, we reply to our critics and defend the suggestion to classify pregnancy as a disease.

Reply to Colgrove and Rodger, and Rezkalla and Smith

Colgrove and Rodger argue that since pregnancy does not involve any dysfunction of any reproductive organ, pregnancy is not dysfunctional and therefore it is not a disease.[i]

Our first point is that, according to Colgrove and Rodger's understanding of the dysfunction account of disease, infertility is a disease. This is counter-intuitive for many. Perhaps Colgrove and Rodger think infertility is obviously a disease and that there is nothing odd about such a claim. But many medical doctors, nurses, parliament members, and laypeople think infertility is not a disease; roughly as many people in these groups think infertility is not a disease as those who think it is.[5] This casts doubt on whether the dysfunction approach to disease should be accepted.

Be that as it may, there are further problems with the dysfunction account of disease. For instance, how can we know what the biological function of a particular organ is? Colgrove and Rodger say we simply observe how organs work and function. So, how a scalp, for instance, functions? Does it grow hair? Typically, it does. So, would balding be a disease? Perhaps. But very few people think balding—or baldness—is a disease.[5]

Suppose it is a disease when hair does not grow on top of one's head; is it also a disease then if hair does not grow on one's armpits? If a hairless armpit is considered a disease, then we have

---

[i] Because of space considerations, we do not go into details of the criticism by Rezkalla and Smith. Since they too criticize us based on the dysfunction account of disease, what we say on Colgrove and Rodger can naturally be extended to cover the main claims of Rezkalla and Smith.

a powerful *reductio ad absurdum* against the dysfunction account of disease. If not having hair on one's armpit is not a disease but not having hair on top of one's head is a disease, then disease is a value-laden concept, since we value hair growing on some parts of our bodies but not on other parts. And if disease is a value-laden concept, then mere biological dysfunction cannot be used to distinguish diseases from other conditions.

What about reproductive organs? How should they function? Colgrove and Rodger say the following.

> We observe that when reproductive organs function in certain ways, reproduction typically occurs. When they function otherwise, reproduction does not occur. This is enough to distinguish proper function from dysfunction, as the end of reproductive organs is to enable reproduction.[2]

Colgrove and Rodger put the cart before the horse. Calling certain organs 'reproductive organs' begs the question. Perhaps a more adequate term would be sex organs or sexual organs since they enable having sex. When we set aside pro-natalist biases, we can see that reproduction does not 'typically occur' with our 'reproductive' organs.

The probability of pregnancy from one completely random act of unprotected intercourse is about 3%, and the likelihood of pregnancy with one act of unprotected intercourse at its highest probability is on day 13 of the ovulation cycle—but even then, the likelihood of pregnancy is less than 9%.[6] In fact, it is more likely that a female recipient will contract a sexually transmitted disease from an unprotected act of sexual intercourse with an STD carrier than become pregnant from a similar sex act with a fertile male.[7] It is almost as if female 'reproductive' organs function not *to get* pregnant but *to avoid* getting pregnant.

Maybe the so-called reproductive organs have other functions besides reproduction—perhaps to promote health in general or to provide sexual pleasure—and perhaps the possibility of getting pregnant is simply another, secondary function of such organs. To illustrate the idea, consider the biological function of a human tongue. Is it to taste what we eat or to enable us to speak clearly? Is it both, or is it something else entirely? What is the primary function and what is the secondary function, and why must we insist that our organs should have a biological function in the first place?

Perhaps the quite inefficient reproductive function of our sexual organs is nothing more than a possibility to achieve a state that can be painful and unpleasant for many, can be treated by

medicine, cured by medical interventions, and is valued by some (and even then, valued mostly indirectly since it is the only way to create new people into the world)—a condition we call pregnancy, but which is very similar to conditions we call diseases.

Reply to Baron

Teresa Baron raises additional objections to our claim that pregnancy can be viewed as a disease. She points out that the way in which pregnancy is treated in a medical context reflects a social rather than a 'medical' reality. However, she misses our point. We were discussing the (unsatisfactory) theory of disease that simply says what is treated medically is a disease. We agree with Baron that the provision of contraception and abortion, as well as obstetric and post/partum care, by medics, reflects a social rather than objectively 'true' view of the status of pregnancy. However, her point strengthens rather than weakens our position. The existence of inconsistencies in the ways in which pregnancy is and is not treated medically highlights the flaws in a purely descriptive account.

Baron also believes that to classify 'normal' female biological functions as diseases will have adverse rather than positive consequences for women. If so, the normative grounds for regarding certain conditions as pathological works against, rather than in favor, of the disease view of pregnancy. We are sympathetic to her concern. The history of medicine is rife with sexist (and racist) assumptions. However, our account has no necessary connection with these perspectives since there is nothing inherently gendered in our account of pregnancy as a disease.

Baron's appeal to 'normal' is problematic too; it clearly begs the question. Much of our paper was focused on showing that it is not at all straightforward to claim that pregnancy is normal, even if it is currently necessary for reproduction.

Her examples of menopause, menstruation etc., are not entirely constructive either because they are considerably less 'pathological' than pregnancy. Menstruation and menopause do not invariably involve the kind of pain or need for medical attention that pregnancy and childbirth do. Again, we emphasize the WHO's statement cited in our previous paper: without medical help, women are at risk of severe injury and death when they give birth. The WHO does not make these claims in relation to other 'normal' female conditions such as menstruation or menopause, precisely because menstruation and menopause are significantly less risky than pregnancy.

Baron also suggests that our assessment of 'normality' in relation to pregnancy is wrong. On her view, our application of a Boorsian framework is misguided. We observed that however small the reference class we choose, whether women, or women or a particular age group, most of the individuals within this class will not be pregnant at any one time. Baron argues that this is the wrong way to think about what is normal. She uses the example of defecation. To defecate is normal, but most people are not defecating most of the time, however small a reference group we choose.

However, our argument is not simply that pregnancy can be construed as a disease because most people are not pregnant. It is in conjunction with the risk to survival that pregnancy becomes pathological. Defecation is not risky in a way that pregnancy is. In the absence of medical help, it does not pose a serious risk to the individual's health and survival as pregnancy and childbirth do. Unlike pregnancy, defecation is also necessary for individual survival.

Another facet of Baron's rebuttal relates to the setting of parameters for reference classes—a necessary aspect of Boorse's theory. It is a well-known source of difficulty in applying his approach in ways that do not yield counter-intuitive results.[8,9] Baron believes that when we consider how pregnancy fits into Boorse's framework, we set the reference class parameters wrongly. Instead of comparing pregnant women with non-pregnant women of the same age, we should take the reference class to comprise *only* pregnant women. In this way, we would have to acknowledge that only some pregnant women suffer harm, and accordingly we can conclude in line with the common-sense intuition that only *these* pregnancies are pathological.

This is a novel solution. However, it solves the problem at a heavy cost since it renders the Boorsian approach circular, and effectively deprives it of any utility in actually determining whether a phenomenon is a disease or not, as noted by Zhou.[10]

Suppose we want to use Boorse's method to establish whether a condition such as HIV is a disease. Those who remember the response to HIV in different countries across the world may recall that its existence and/or disease status were not universally accepted. Some argued that there was no such thing as HIV, since those who were supposed to have it died of other illnesses, such as pneumonia, tuberculosis or cancer. Importantly, this was not incorrect—HIV sufferers *did* die from these conditions. But whether people died of HIV or other conditions is entirely unsatisfactory reason for deciding whether HIV is a disease.

In HIV, there is a viral infection. In pregnancy, there is a developing fetus. Aside from this, there are simply lists of symptoms. Pain, sickness, weight loss or gain, tissue damage and so on and so forth. If we take this approach to its extreme, we find that there are no diseases, only collections of symptoms. Accordingly, for any condition X, if our reference class comprises only people who have X, we will find that it is pathological only in cases where it causes pathological symptoms. We know however that, for example, in the case of covid, there are many cases in which people experience *no* symptoms and never know that they were infected. It might be reasonable to say that such individuals are not suffering from a disease, but it does not make sense to say that covid is not a disease.

Neither classifying pregnancy as a disease, or denying that it is pathological, is likely to end sexism or oppression. But that wasn't our claim in the first place. We suggested though, that because pregnant and labouring women are *already treated as patients* in some respects, they could benefit from a more explicit acknowledgement that pregnancy and childbirth are indeed risky to health, and that medical care for pregnant women should treat their pain and suffering as seriously as it would treat such pain and suffering in other conditions. Therefore, pregnancy could be classified as a disease.

References

[1] Smajdor A, Räsänen J. Is pregnancy a disease? A normative approach. *J Med Ethics* 2024. https://doi.org/10.1136/jme-2023-109651

[2] Colgrove N, Rodger D. No, pregnancy is not a disease. *J Med Ethics* 2024. https://doi.org/10.1136/jme-2024-109922

[3] Rezkalla P, Smith E. Failing to deliver: why pregnancy is not a disease. *J Med Ethics* 2024. https://doi.org/10.1136/jme-2024-109956

[4] Baron T. Pregnancy, pain and pathology: a reply to Smajdor and Räsänen. *J Med Ethics* 2024. https://doi.org/10.1136/jme-2024-109921

[5] Tikkinen KAO, Leinonen JS, Guyatt GH, et al. What is a disease? Perspectives of the public, health professionals and legislators. *BMJ Open* 2012;2:e001632

[6] Wilcox AJ, Dunson DB, Weinberg CR, Trussell J, Baird DD. Likelihood of conception with a single act of intercourse: providing benchmark rates for assessment of post-coital contraceptives. *Contraception* 2001;63(4):211-5.

[7] Against the odds: what is your risk of getting an STD through a one-off heterosexual encounter? <https://stdcenterny.com/articles/std-risk-with-one-time-heterosexual-encounter.html> Accessed 26 Aug 2024.

[8] Binney N. Reference-class problems are real: Health-adjusted reference classes and low bone mineral density. *J Med Philos* 2024;49(2):128-46.

[9] Kingma E. What is it to be healthy?. *Analysis* 2007;1;67(2):128-33.

[10] Zhou, J. Pregnancy Is a Survival Pathology: A Biostatistical Approach. 2024. Manuscript currently under review at *Philosophy of Medicine*.