

## **A professional paper, psychiatrists: “What is the difference between yours and Alyssa Schuett’s objections to the extreme female brain?”**

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*Abstract.* This paper presents how Simon Baron-Cohen might defend himself from Alyssa Schuett’s objection to what he says about the extreme female brain. He might appeal to the distinction between concepts and propositions, and say that there is nothing problematic about the concept of the extreme female brain but there is a problem with the proposition “We have found an example of someone with the extreme female brain.” I explain that my objection targets the concept.

*Date:* 6th May 2025 (draft 2, apology added)

In his book *The Essential Difference*, Simon Baron-Cohen asserts that males on average have brains which are more oriented to systematizing than empathizing, whereas females on average have brains which are more oriented to empathizing than systematizing. But there can be a male with a female brain, according to him, and a female with a male brain. People with autism have the extreme male brain, he tells readers. I read Alyssa Schuett’s presentation of objections to Baron-Cohen with interest. (She was advised by Robert Schroer.) Her presentation has some philosophy and some anthropology and an objection to Baron-Cohen on the extreme female brain. I wish to focus on the objection, which is different from my own.

Baron-Cohen introduces the concept of the extreme female brain. The extreme female brain is very good at systematizing but very bad at empathizing. Sorry, I mean the other way around: the extreme female brain is very good at empathizing but very bad at systematizing. He says, “In our research, we have not found anyone with the extreme female brain,” or words to that effect (2003: 170). Schuett makes these three assertions:

- (a) Not encountered in science, just an idea he came up with.
- (b) The extreme female brain is not problematic, according to Baron-Cohen.
- (c) He cannot have it both ways.

I think Baron-Cohen can respond to Schuett’s objection, or I can on his behalf. (He cannot even get a popularizer and has to write the popular “textbook” himself! How much work must he do on papers within research teams?!)

To grasp the response, we need to distinguish between concepts and propositions. Propositions are normally presented by whole sentences, such as the sentence “Baron-Cohen is a man” and the sentence “The University of Cambridge is south of the University of Manchester.” Concepts are the building blocks of propositions, in a way that is roughly analogous to how words are the building blocks of sentences. The proposition that Baron-Cohen is a man uses the concept of a man. The proposition that the University of Cambridge is south of the University of Manchester uses the concept of being south of.

With this distinction between concepts and propositions in place, we need to distinguish between a concept’s being problematic and a proposition’s being problematic. A concept is problematic if, whenever you use that concept in a proposition, the proposition is contradictory. For example, the concept of a round square is problematic. Here are two propositions featuring it: (i) the maths teacher drew a round square on the board; (ii) there is a certain round square and it has a circumference of ten metres. You don’t even need to know anything about the teacher before you are having a problem with accepting proposition (i) and likewise you don’t need to measure anything before you are having a problem with accepting proposition (ii).

A proposition in science can be problematic by being contradictory but it can also be problematic, even if it is not contradictory, because there is no evidence in its favour.

Baron-Cohen can say this. The concept of an extreme female brain is not problematic. You can use it in a proposition without contradiction. There is nothing contradictory about the proposition “Madam Odile has an extreme female brain.” But the proposition “There is someone with an extreme female brain” is problematic, because there is no scientific evidence for that. Baron-Cohen can say, “My claim is that the concept of an extreme female brain is not problematic. But at the moment we have not encountered any instances of the extreme female brain. We might do in the future. Physicists sometimes introduce a concept and posit an entity and later discover instances of it, such as black holes. Why can’t the psychologist medic do the same?”

I guess Schuett will say, “Psychology and medicine are just not physics, so you cannot appeal to physics here.” I think the best she is going to get from going down that line is that the concept of an extreme female brain should not be

introduced in a popular book. (Experts will differ on the relationship between Baron-Cohen's disciplines and physics.)

My objection is to the very concept of the extreme female brain (Edward 2022). How can you be very good at empathizing but very bad at systematizing? If you are so bad at systematizing, you won't be able to understand all the systematizers and so you won't be very good at empathizing. I cannot see that Schuett makes this objection.

## References

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