Bachelor's thesis review – Supervisor's evaluation

Title: *What do people with prosopagnosia find attractive?*

Author: Veronika Trnková

Supervisor: RNDr James G. Pfaus, PhD, IF

Opponent: Zsófi Csajbóok, MA, PhD

Veronika Trnková's thesis began as the simple and very original question in her title. Prosopagnosia is a form of visual agnosia in which the ability to perceive and recognize faces is impaired, whereas the ability to recognize other objects may be relatively unaffected. Given overwhelming evidence that facial cues are predominant sources of sexual attraction, we wondered whether these cues might be downplayed as sources of sexual attraction in people with prosopagnosia relative to people without prosopagnosia. Veronika then designed a cross-sectional online survey to gather data on participant demographics, attraction preferences, sexual fantasies, and face recognition ability (using the validated 20-item Prosopagnosia Index, PI-20). A total of 44 participants (24 females, 20 males) with prosopagnosia were recruited either through social media under "#prosopagnosia" where they were contacted in private chats after seeing that they had shared a post or talked about their life with prosopagnosia, or prosopagnosia forums. A total of 93 participants (71 females, 22 males) without prosopagnosia were recruited based on proximity and availability. Every effort was made to match participants on age and sex for both groups. Data were analyzed using Group x Sex factorial analyses of variance.

People with prosopagnosia scored above the cut-off on the PI-20. People without prosopagnosia scored significantly below the cut-off. There were no sex differences. Relative to people without prosopagnosia, those with prosopagnosia reported less importance overall of physical features in their assessments of sexual attractivity. This was especially true for facial features, and in particular, eye color and smile. Although both groups had sexual fantasies, significantly more people with prosopagnosia reported not having fantasies about attractive people. Interestingly, facial symmetry was not important for sexual attraction in either group. Compatibility and a good sense of humor were highly important for sexual attraction in both groups, whereas vocal timbre, body type, muscle tone, and smell, were moderately important for both groups. There were no differences between groups in the number or duration of sexual or romantic relationships. Thus, relative to people without prosopagnosia, those with prosopagnosia downplay physical and facial cues as important factors in assessments of sexual attraction. Fewer have sexual fantasies about attractive persons.

This was, in my view, a very large undertaking for an undergraduate thesis and one that Veronika took the challenge to analyze. Her study represents a first stab at understanding the

sexual functioning of people with this condition, something she plans on pursuing in the future for her Masters. As her findings are very important from a sexological, clinical, and experimental framework, we have submitted an abstract of this work for next year's meeting of the European Society for Sexual Medicine, with Veronika rightly as first author.

The theoretical part of her thesis touched on the nature of cues that people find attractive from several standpoints, but most importantly from the evolutionary and experiential. Both could have used more detailed descriptions and a better flow, but she clearly expressed the nature of the constraints that would need to be considered if facial cues were reduced in hedonic value. The experimental part of the thesis was a bit choppy, but I thought her data analyses were clear. Although her discussion could have benefitted from greater depth and detail, I was impressed how she was able to simplify the take-home messages of her findings. Seeing the "big picture" is not that common in an undergraduate thesis.

I would rate Veronika's thesis as Excellent and I would grade her efforts in the construction of the survey, its analysis, and her thesis as a whole as a 1. This is especially true given that English is not her first language.

In Prague, 17 September 2024   James G. Pfaus, PhD IF