

Sheffield, 6 September 2019

I have read Ms Barbora Kerkova's thesis on 'The emotion-paradox' with great interest and pleasure. The thesis is written in excellent English, that is easy to understand for a broad academic audience, despite its quite specialist and clinical content.

The thesis presents a well-focussed, comprehensive literature review outlining the main findings in the research literature with respect to emotion-perception and experience in schizophrenic patients, music and auditory perception in schizophrenic patients, and relationships between emotion perception and experience in music listening. It critically assesses weaknesses in methodologies of previous studies, and identifies the need for further research that addresses some of these weaknesses: in particular, the need to test perception and experience of emotion in a single paradigm testing the same participants on both dimensions; the need to differentiate implicit from explicit emotion processing, and the hypothesis that only the latter is impaired in schizophrenic patients, while implicit perception and experience are intact; and the need to differentiate implicit emotion processing of negative valence and schizophrenia related symptoms.

In two experimental studies, these identified gaps are addressed and investigated. Study 1 investigates implicit emotional processing of musical stimuli, directly comparing perception and experience of emotion. A two-dimensional response paradigm is employed that is argued to require less explicit processing of emotion as listeners do not need to label the emotion perceived. Furthermore two types of music are used that each vary in a systematic manner in emotional valence and arousal. The first type of music is previously validated emotional film music. The second type of music is newly composed music that has characteristics associated with schizophrenic symptoms. This is an interesting stimulus set that forms in itself a valuable research contribution. However, the validation and characterisation of this stimulus set is given relatively little weight in the thesis.

The dimensional approach and task combination of perceived and experienced emotions allow the researcher to quantitatively relate the two responses and test for group differences in emotion processing. Three schizophrenic subgroups are identified and compared with a control group. The quantitative analyses are conducted in an appropriate and sophisticated manner, appropriately testing for potential violations of statistical assumptions, and explaining the data processing and analyses steps in a clear manner that is reproducible. Relevant figures are included that illustrate the main results. No impairment is found in emotion perception or experience in the schizophrenic group compared to the control group, as both groups are similarly responsive to the valence and arousal of the musical excerpts. Some difference is however found in the intensity of the emotional responses, if the direction of the emotional response is ignored. Differences are also found in responses to the second type of music, where the control group seems to be less responsive to the emotional variation of the music than the schizophrenic group.

Study 2 was conducted in a similar test session as Study 1 with the same group of participants. This study examines emotional interference using a Stroop paradigm that includes negatively valenced words, neutral words, and words related to schizophrenic symptoms. This study is successful in showing differential responses to negative vs. neutral words, and responses to schizophrenic symptoms compared to neutral words. The latter comparison is further modulated by an effect of schizophrenic subgroup.

The coherence between the two studies is that both address an aspect of the so-called emotion-paradox and examine implicit emotional processing of emotional stimuli. They offer valuable contributions to the existing research literature and are reported and analysed in a high-quality manner that is of publishable standard. The sample size is very good, given that the studies concern a complex population of patients that are not easy to test and get access to. A weakness of the thesis is that the connection between the two studies is not elaborated explicitly. For example, the results of Study 2 are not used to develop insight in responses in Study 1 or vice versa. Study 2 is also not a follow-up on Study 1. The two studies do share an overarching concern of clarifying implicit emotion processing in schizophrenic patients.

The general discussion of the thesis is again of good quality. Insightful suggestions are made for further research and implications of the research for therapeutic practice with the patient group are discussed. Limitations of the studies are properly acknowledged.

In short, I am fully satisfied that the work as reported in the thesis and the thesis itself is worthy of awarding the degree of Doctor of Philosophy to the candidate, Barbora Kerkova. The studies demonstrate appropriate academic skill, rigour, originality, and conscientiousness and offer a valuable contribution to the research literature. The thesis stands tribute to the high quality development of the candidate who has mastered a complex area of research, offered a rigorous and original perspective, and conducted innovative research with very valuable theoretical and practical implications.

Signed:



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