Dear Professor Fassino,

We would like to thank your reviewers for their helpful and interesting comments which have helped to improve our manuscript. Please find below our responses to the reviewers’ comments. We have tracked our changes in the manuscript to make it easy for our amendments to be viewed.

**First Reviewer**

Recovered individuals show a duration of illness significantly lower than those who are currently ill. In the limitation section the authors highlight how recovered group could be a group originally less ill than those currently affected by the disorder. The authors could hypothesize that recovered individuals premorbidly showed less deficit in emotional facial expression. This could have been a positive factor as regards resistance to treatments.

*We have now made this important point in the Limitations section, thank you.*

Paragraph “experimental task”: it could be useful to clarify if the three movies were seen on the same day or not.

*The clips were viewed on the same day and this has now been included in the Methods section. All data was collected in one sitting.*

Data on looking away are interesting. Ill patients – differently from recovered – during the sad clip were significantly more avoidant. The issue of emotion avoidance in AN – as the authors discuss in their introduction – is well-known but some more comments on this datum could enrich the paper. For example, it could be speculated that working on emotion – especially when negative – avoidance can be a relevant factor as regards resistance.

*We dedicated a large section of the Discussion of our previous paper (Davies et al, 2011) to discussing looking away from the negative film clip in a...*
currently ill group and did not wish to replicate this to the same extent. However, we agree this is important relating to resistance to treatment and we have now included a paragraph in the Discussion with references.

Since the study is performed on clips, it could be useful an authors’ opinion on using movies in therapy or on cinematherapy itself; in fact these are therapies of growing interest in the last years because of several psychosocial factors.

Cinematherapy is the process of using films in therapy as metaphors to enhance client insight and optimal growth. By involving an individual or family the task of viewing a film, it is anticipated that clients will connect their own life experiences with those demonstrated on the screen and ultimately new solutions to old problems. This could be a potential line of treatment for people with AN.

Minor Revisions

Trivial note: page 4 last paragraph: maybe it could be more appropriate referring to remission rather than recovery for schizophrenic patients.

Thank you, this has been amended.

Second Reviewer

Minor Essential Revisions

Methods:

The authors may wish to explain why they have decided to exclude subjects younger than 16 and older than 55 years. Why did they use particularly these thresholds?

This information has now been included in the methods section. All participants were aged between 16 and 55 years old as the ED unit where recruitment took place treats people in this age range.

The authors may also wish to explain why they have chosen 18.5 as the upper BMI limit for currently-ill AN since typically 17.5 is used as a threshold value.

The decision to include this weight limit is based on a recent large meta-analysis which suggests that AN with a more lenient weight criterion and without amenorrhea is very similar to strict diagnostic AN, as long as BMI<18.5 is set (Thomas, Vartanian, & Brownell, 2009). We have now included this information in the Methods section.

It would be helpful for the reader if the authors let them know about the mean length of the film-clips they have used. In addition, the authors may wish to add some information regarding the selection and the content of these three film-clips, and why they have decided not to use a counterbalanced order of presentation.

We have now given a more comprehensive description of the film clips including the requested information in the Methods Section.

Regarding the second last subheading in the method section: did the authors
mean “Coding the Facial Expressions” instead of “Coding the Film Clips”?

Thank you, this has now been changed.

The authors should state whether all film-clips (or rather some of them) have been coded by two raters, and whether the mean scores obtained from both raters were used in further analyses.

Yes, the film clips were coded by two raters and this information has now been included in the Methods section.

Results:

In the method section, the authors stated that a) frequency, b) intensity, and c) duration of facial expressions were rated. However, in the results section they only refer to the frequency of expressions. The authors should state why they decided to do so and may therefore refer to previous studies that have also focused solely on frequency (Kring & Gordan, 1998; Kring & Neale, 1996). Alternatively, the authors may add a footnote indicating that using a composite score combining frequency, intensity, and duration of expressions yields similar results.

We have now included a paragraph explaining how and why we chose to use the frequency score.

In cases where no significant differences between groups have been observed (e.g., regarding positive expressions during the sad and the neutral clip), the authors may wish to add p values (“all ps > XY”).

Thank you, we have now done this.

Discussion:

The authors are commended explain the rather surprising main finding of greater incongruent emotional expression during positive film-clips in RecAN and AN as compared to HC and thus for providing testable hypotheses for future research. However, the authors may wish to also discuss the discrepancy between the results in the present study and the results in their previous study (Davies et al., 2008). In their previous study, currently-ill AN patients did not show significantly more negative emotional expressions during positive film-clips than HC. However, in the present study, AN as well as RecAN did so. Maybe, this discrepancy can be explained by the larger sample size in the present study [all the more, as there seems to be a similar difference between AN and HC in the previous study (p value = .06) that has just not reached statistical significance]. Furthermore, the authors may wish to also discuss the possibility that less frequent negative expressions during negative clips in AN may be due to more frequent “looking away” in this group.

Thank you, this is an important point to make. We have now included information relating to this in the Discussion.

The authors should state in the limitations section that data regarding illness duration was only available for half of the AN sample.
We have stated this along with mentioning that some of the lowest BMI data was also unavailable.

We hope yourself and your reviewers are happy with our amendments.

Kind regards,

Helen Davies

On behalf of the authors