



Response letter

Comments editor:

1. You say that "no single root cause for MD has been found..." in the introduction. That is true for nearly every psychological condition; please revise or remove this statement.

We agree with the editor; this is true for nearly every psychological condition. Therefore, we have removed this statement from the manuscript, see page 3:

“Despite decades of research, it remains difficult to understand how depressive complaints arise and develop which seriously hampers the quest for effective treatment interventions (Kendler, 2008). One complicating factor in understanding the etiology of MD is that people can receive the same MD diagnosis while reporting very different combinations of depressive complaints (Fried, 2017).”

2. You also write “However, it remains an open question how exactly PA, NA, and the evolution of depressive complaints interact and influence each other.” I generally don't find arguments like this one (which are essentially a "more research is needed" argument) compelling. Please expand on this in a sentence or two: why is this an important question to consider, and why might it be important to look at the associations among these variables over time?

We agree that the justification for why it is interesting to see how PA, NA, and depressive complaints interact and influence each other could be further expanded. We therefore elaborated on this by adding a brief paragraph to the introduction explaining why it is important to look at the associations among these variables over time in a more detailed manner (see, page 4-5):

“While it is clear that both PA and NA influence the evolution of depressive complaints, PA and NA are not independent of each other (Barford et al., 2020). It is possible that the concerted influence of PA and NA on depressive complaints (i.e., when both PA and NA are taken into account simultaneously) is different than when only considering either the effect of PA or NA. Therefore, it is also of interest to understand how the interplay between PA and NA is associated with the development of depressive complaints. Research suggests that zooming in on day-to-day experiences in a detailed level, such as smaller components of positive affect (feeling ‘happy’ or ‘excited’) and negative affect (feeling ‘afraid’ or ‘upset’), can generate insights that are easily overlooked in more macro-level measurements of affect and psychopathology (Wichers, 2014; Bringmann et al., 2013). Specifically, looking into the interrelations of smaller components of PA, NA, and depressive complaints as one integrated system can contribute to our mechanistic knowledge of the development of depressive complaints.”

3. I think you could expand on the justification for the network analysis. So far, your introduction argues mostly for looking at temporal dynamics, without a strong rationale for looking specifically at networks (and sub-components of them like item-level associations). I think you could develop this further.

We think the justification for network analysis is closely related to the question *why* it is important to look at the direct interplay between NA, PA, and depressive complaints over time as one integrated

system. Therefore, we have addressed comment 2 and 3 in a single paragraph (see the extra paragraph in the former comment). As stated in the paragraph, zooming in on day-to-day experiences on a detailed level may generate insights that may be overlooked when conducting research in more macro-level measurements of affect and psychopathology. Network analysis allows us to look at these conditional associations in a detailed way.

4. Please change the term "interactions"; this will be confused with statistical moderation. I would suggest something like "associations".

We have changed the term interactions to relations and associations. For example, see page 7: “*These network models allow us to estimate the direct **relations** between affect and depressive complaints across individuals (i.e., between-subjects and fixed-effects network) and for every individual (i.e., random-effects) in a multilevel framework.*” or page 5: “*The strength of the **associations** between the detailed elements in the network is summarized as the density of the network.*”

5. Finally, I noted that Figure 3 had no data in it. I wasn't sure if that was intended but it is confusing.

It was intended for Figure 3 to have data in it, and we are unable to identify why the figure contains no data for the editor to see. When we inspected the pdf, both the figure and the manuscript contained data. We have now uploaded the figure in several additional formats (jpg, png), to hopefully combat this issue.