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The Impact of Subjective Interoceptive Accuracy on Opinion Change: How Exposure to Opposing Views Influences Perceptions of Events

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ABSTRACT

This research examines the connection between subjective interoceptive accuracy and the tendency to maintain or alter opinions when individuals were confronted with opposing views. We proposed that individuals exhibiting higher interoceptive accuracy would be less inclined to change their opinions. Surprisingly, our findings did not reveal a significant association between interoceptive accuracy and the extent of opinion change. Notably, however, we identified a moderate association between an increased sensitivity to internal bodily signals-as indexed by the Noticing subscale of the Multidimensional Assessment of Interoceptive Awareness (MAIA-N)-and a higher likelihood of opinion change. This observation implies that individuals who are more attuned to their internal bodily signals might also be more adaptable in revising their perspectives when exposed to contradictory viewpoints. Overall, these results enhance our understanding of interoceptive accuracy and attitude shifting, highlighting the intricate interplay between bodily sensations and higher-order cognitive processes.

KEYWORDS

Interoceptive Accuracy; Opinion Change; Cognitive Flexibility; Multidimensional Assessment of Interoceptive Awareness (MAIA); Polarization.

1. INTRODUCTION

Repeated research shows social media's rapid growth has advanced the polarization of attitudes (Kubin & von Sikorski, 2021). Users tend to see content that mirrors their existing beliefs frequently found on these platforms which creates an “echo chamber” effect that amplifies existing viewpoints. Social media's influence on public discourse and democratic institution strength has come into serious question because of recent events. Given these worries, experts argue that exposing people to different perspectives can be a strategy to decrease polarization. Current field research demonstrates unforeseen results which show that while some groups (republicans but no democrats; Bail et al., 2018) become more polarized after exposure, the outcome is generally negative. These findings highlight the necessity to consider individual variations when developing approaches that aim to decrease polarization.

Interoceptive accuracy which means the ability to accurately feel the internal sensations of the body has been considered an important factor in cognition and decision making (Desmedt et al. 2023). Previous studies have found that people with higher interoceptive accuracy tend to make more intuitive decisions (Dunn et al., 2010), whereas the most recent study indicates that there may be a relationship between this ability and political orientation, with more accurate interoceptive perceptions associated with conservative attitudes (Ruisch et al., 2022).

On the basis of these insights, we argued that people who see themselves as having greater interoceptive accuracy could be less likely to change their opinions when presented with opposing viewpoints. This hypothesis is based on the assumption that a higher sensitivity to internal bodily signals might make people rely more on their intuition, and, therefore, pay less attention to external information. Previous research has investigated the role of interoceptive accuracy in relation to various cognitive functions, but its impact on shaping opinions when people are exposed to opposite points of view has not been explored. Exploring this link could provide significant insights into how social media algorithms can be customized and how we can effectively promote constructive conversation in the face of increasing polarization.

Previous research has shown that people with better interoceptive accuracy rely more on their feelings and are less likely to change their behavior based on external information (Dunn et al., 2010; Ruisch et al., 2022). Therefore, we hypothesized that higher levels of subjective interoceptive accuracy would be linked to a lower degree of opinion change following exposure to opposing views.

2. METHOD

2.1. Participants

We collected data from 229 participants from different regions of China. The age of our participants was between 14 and 65 years, the mean age being 24.72 (SD = 7.58) years. Our sample comprised 115 males, 113 females, and one participant who did not specify their gender. These variations in age and gender make our basis for examining how changes in interoceptive accuracy are related to changes in opinion across different populations solid.

2.2. Measures

2.2.1. Interoceptive Functioning

To measure subjective interoceptive accuracy we have used mainly the Interoceptive Accuracy Scale (IAS; Murphy et al., 2018). This 21 item questionnaire is a self report measure that asks participants to consider how good they are at paying attention to and following their internal bodily sensations. The reliability of the IAS has been shown to be high, with strong internal consistency (α =.88) and a robust test retest reliability (r =.80).

Additional measures of interoceptive functioning included:

Besides the IAS, we employed several other tools to offer a more comprehensive account of interoceptive function. First, we created the Interoceptive Mirroring Questionnaire (IMQ) that consists of 32 items which aim at people's perception of the correspondence between the internal processes and the external world, which offers a new view on the body perception.

We also used selected subscales of the Multidimensional Assessment of Interoceptive Awareness Version 2 (MAIA-2, Mehling et al., 2018). We selected the Noticing (N), Emotional Awareness (EA), Body Listening (BL) and Trusting (T) subscales because they provided a way to measure the specificities of interoceptive perception and interpretation.

Last, to measure potential challenges in the correct interpretation of the bodily signals, the Interoceptive Confusion Questionnaire (ICQ, Brewer et al., 2016) was applied. It helps to complement our other assessments as it focuses on the specific issues with recognising and interpreting bodily cues.

2.2.2. Opinion Change Measure

To assess opinion change, we also created a self report scale for this study. Participants were instructed to indicate their agreement with the percentage of responsibility of characters in a

conflicitng event before and after being presented with differing viewpoints. The variation in these ratings was a clear indicator of how their opinions changed when they were presented with opposing perspectives. This enabled us to contrast their pre and post exposure responses and to see the extent of opinion change.

2.3. Procedure

Participants provided informed consent, completed a series of self-report measures to assess interoceptive functioning and psychological distress, and subsequently completed the opinion change measure to evaluate the impact of opposing views.

2.4. Data Analysis

Pearson correlations were used to examine the relationship between subjective interoceptive accuracy (as measured by the IAS) and the degree of opinion change. The choice of Pearson correlations was based on the assumption of linear relationships between variables and the continuous nature of the data. Additional correlational analyses were conducted to explore relationships between other interoceptive functioning variables and opinion change.

3. RESULTS

3.1. Descriptive Statistics

Table 1 outlines the basic statistics for our key variables-specifically, the mean values, standard deviations, and the correlations among IAS_sum, MAIA scores, and the measure of opinion change (absoluteΔ).

3.2. Confirmatory Analyses

To explore the relationship between subjective interoceptive accuracy and the degree of opinion change, we applied Pearson correlation analyses. When examining IAS_sum against absoluteΔ, we found no statistically significant link ($r = .077$, $p = .244$). In other words, how participants rated their interoceptive abilities did not predict the extent to which their opinions shifted following exposure to contrasting views. Conversely, a significant positive correlation emerged between participants' agreement with various viewpoints (including measures such as agreement with comments, perceived reasonableness, and empathy) and absoluteΔ ($r = .407$, $p < .001$). This result indicates that those who showed higher levels of agreement were also more inclined to modify their opinions.

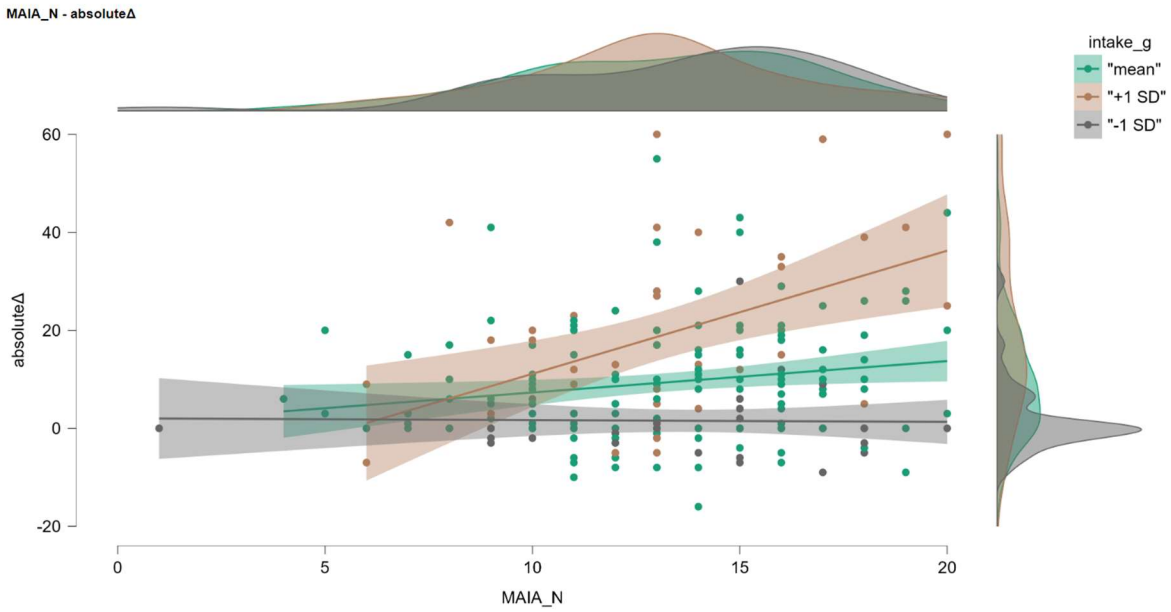
3.3. Exploratory Analyses

We further delved into other dimensions of interoceptive functioning by examining several Multidimensional Assessment of Interoceptive Awareness (MAIA) subscales in relation to opinion change. The correlations were as follows: MAIA_N yielded $r = .192$ ($p = .004$), MAIA_EA had $r = .148$ ($p = .025$), MAIA_BL resulted in $r = .098$ ($p = .138$), and MAIA_T came out to $r = .119$ ($p = .073$). Notably, only the correlation for MAIA_N reached significance, suggesting that individuals who are more sensitive to noticing their internal bodily sensations tend to experience greater shifts in opinion. The other subscales-emotional awareness, body listening, and trusting-did not show significant correlations with opinion change.

In addition, we conducted a regression analysis to shed further light on these relationships. Here, the interaction between agreement with viewpoints (again considering factors like agreement with comments, perceived reasonableness, and empathy) and MAIA_N proved to be significant ($\beta = 0.318$, $t = 2.819$, $p = .005$). This finding implies that the effect of agreement with viewpoints on opinion

change is moderated by the level of bodily sensation awareness. The robustness of this interaction was confirmed by bootstrap coefficients (β = 0.319, p* = .002), reinforcing the conclusion that participants who are more attuned to their internal sensations tend to show greater opinion change when they also report high levels of agreement with the opposing viewpoints.

Table 1. Multidimensional Assessment of Interoceptive Awareness (MAIA) subscales in relation to opinion change



4. DISCUSSION

4.1. Interpretation of Findings

Our study aimed to investigate the relationship between subjective interoceptive accuracy and resistance to opinion change when exposed to opposing views. The absence of a significant correlation suggests that interoceptive processes may not play a direct role in short-term opinion change. This finding is intriguing given previous research linking interoceptive accuracy to intuitive decision-making and political beliefs, indicating a more complex relationship than previously understood.

Several potential explanations arise from these findings. First, subjective interoceptive accuracy may not significantly influence immediate reactions to opposing views, as the cognitive mechanisms involved could differ from those underlying more stable political beliefs. Additionally, the strength of prior beliefs or the perceived credibility of opposing views may moderate the relationship between interoceptive accuracy and opinion change.

4.2. Implications

4.2.1. Theoretical Implications

Our findings add to the growing body of research on interoception and cognitive functioning. Although interoceptive accuracy appears to be linked to intuitive decision-making, our results suggest that this connection does not necessarily extend to every area of cognitive flexibility or the process of opinion change. The absence of significant associations across different interoceptive measures

points to the importance of exploring, in more detail, how various dimensions of interoception interact with cognitive processes.

4.2.2. Practical Implications

From an application perspective, these results indicate that solely targeting interoceptive processes may not effectively enhance individuals' openness to opposing views. Instead, it might be more beneficial for policymakers and social media platform designers to consider other factors that drive opinion change, or to focus on environmental and contextual variables that encourage more constructive dialogue.

4.3. Limitations

Our study has a few limitations that might have influenced our ability to spot clear links between interoceptive accuracy and opinion change. First, Because our study relied on a cross-sectional design, we cannot conclusively determine whether interoceptive accuracy drives opinion change or if the relationship might be causal or influenced by other factors.. Future studies employing longitudinal designs could offer deeper insights into how specific aspects of interoception-such as emotional awareness or body listening-evolve over time and influence shifts in opinion revealing patterns that are not apparent in short-term studies.

Second, our sample consisted exclusively of Chinese participants aged between 14 and 65. This demographic specificity may limit the generalizability of our findings to other cultural contexts or age groups, given that cultural differences in interoceptive awareness and sociopolitical attitudes could alter these relationships.

Lastly, the use of self-report measures for both interoceptive accuracy and opinion change raises concerns about common method variance. Future research would benefit from incorporating behavioral or physiological assessments of interoceptive accuracy, as well as more objective indicators of opinion change, to address these potential biases.

4.4. Future Directions

Our findings open up several avenues for future research. Longitudinal studies could explore how interoceptive processes relate to opinion change over extended periods, potentially uncovering relationships not apparent in short-term exposure to opposing views.

Investigating potential moderating factors, such as the strength of prior beliefs, cognitive flexibility, or emotional reactivity, could provide a more nuanced understanding of when and how interoceptive processes might influence opinion change.

Future research could also benefit from more ecologically valid designs, perhaps utilizing real-world social media environments or political discussions to examine how interoceptive processes relate to opinion change in naturalistic settings.

5. CONCLUSION

In this study, we set out to explore the link between how people perceive their internal bodily sensations and the extent to which their opinions change when confronted with opposing views. Overall, our findings did not reveal a strong connection between general subjective interoceptive accuracy and opinion change. However, we did observe a moderate correlation involving the Noticing subscale of the MAIA. This suggests that individuals who are more in tune with their internal bodily signals tend to adjust their opinions more readily when exposed to differing viewpoints.

These results underscore the complex nature of cognitive flexibility and the processes involved in shaping attitudes. It appears that the role of interoception in opinion change is not uniform but may

depend on specific facets of how we perceive our internal states. Ultimately, our research highlights the need for a more detailed exploration of the cognitive mechanisms behind opinion formation and change, especially in today's increasingly polarized social environment.

REFERENCES

[1] Bail, Christopher A., et al. "Exposure to Opposing Views on Social Media Can Increase Political Polarization." Proceedings of the National Academy of Sciences, vol. 115, no. 37, 28 Aug. 2018, pp. 9216–9221, www.pnas.org/doi/10.1073/pnas.1804840115, https://doi.org/10.1073/pnas.1804840115.

[2] Dunn, Barnaby, et al. "Psychological Science Listening to Your Heart : How Interoception Shapes Emotion Experience and Intuitive Decision Making on Behalf Of: Association for Psychological Science." Psychological Science, vol. 21, no. 12, 2010, www.overcominghateportal.org/uploads/5/4/1/5/5415260/interoception_shapes_emotion_and_intuitive_decisions.pdf, https://doi.org/10.1177/0956797610389191.

[3] Kubin, Emily, and Christian von Sikorski. "The Role of (Social) Media in Political Polarization: A Systematic Review." Annals of the International Communication Association, vol. 45, no. 3, 3 July 2021, pp. 188–206, academic.oup.com/anncom/article/45/3/188/7912664, https://doi.org/10.1080/23808985.2021.1976070.

[4] Ruisch, Benjamin C, et al. "Sensitive Liberals and Unfeeling Conservatives? Interoceptive Sensitivity Predicts Political Liberalism." Politics and the Life Sciences, vol. 41, no. 2, 1 Jan. 2022, pp. 256–275, pubmed.ncbi.nlm.nih.gov/36880547/, https://doi.org/10.1017/pls.2022.18.

[5] Desmedt, Olivier, et al. "The New Measures of Interoceptive Accuracy: A Systematic Review and Assessment." Neuroscience & Biobehavioral Reviews, vol. 153, 12 Sept. 2023, pp. 105388–105388, www.sciencedirect.com/science/article/abs/pii/S0149763423003573?dgcid=api_sd_search-api-endpoint, https://doi.org/10.1016/j.neubiorev.2023.105388.

[6] Mehling, Wolf E, et al. "The Multidimensional Assessment of Interoceptive Awareness, Version 2 (MAIA-2)." PLoS ONE, vol. 13, no. 12, 4 Dec. 2018, pp. e0208034–e0208034, pmc.ncbi.nlm.nih.gov/articles/PMC6279042/, https://doi.org/10.1371/journal.pone.0208034.

[7] Murphy, Jennifer, et al. "Testing the Independence of Self-Reported Interoceptive Accuracy and Attention." Quarterly Journal of Experimental Psychology, vol. 73, no. 1, 10 Oct. 2019, pp. 115–133, https://doi.org/10.1177/1747021819879826.

[8] Brewer, Rebecca, et al. "Alexithymia: A General Deficit of Interoception." Royal Society Open Science, vol. 3, no. 10, Oct. 2016, p. 150664, https://doi.org/10.1098/rsos.150664.