Heartfelt mentalising:
Does interoceptive awareness predict spontaneous perspective-taking?
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Does interoception help social cognition by grounding the self in the body?
Individual differences in interoceptive awareness predict body ownership illusions. Similar associations are currently lacking for mentalising tasks. Our study differs in assessing automatic perspective-taking.

Heartbeat counting task + dot perspective task (N = 60)
Participants counted the number of perceived heartbeats over 3 trials (25, 35, 45s duration). This was compared to actual heartbeats, according to the formula:
$$I_{Acc} = \frac{1}{3} \sum_{1}^{3} |n_{beats_{actual}} - n_{beats_{counted}}|$$
The dot perspective task was used to measure automatic perspective-taking. Participants were presented with a digit (0-3) and asked to verify whether this matched the number of dots presented from their own (or another's) perspective. Consistency between the number of dots seen from participant/avatar perspectives was manipulated.

Perspective-taking was not related to interoceptive accuracy

For self-perspective, main effect of consistency, indicating spontaneous perspective-taking, $F(1, 52) = 33.43, p < .001, \eta^2_p = .391$.
No interaction with interoceptive awareness (low / high), $F(1, 52) = 0.004, p = .951, \eta^2_p < .001$.

Perspective-selection mediated by domain general executive functions?
In common with explicit mentalising, implicit mentalising is not modulated by interoceptive awareness.
Speculate that perspective selection measured by the dot perspective-task is mediated by domain general executive functions, rather than by specialised self-other control processes.

References
2 Ainley, V., et al. (2015). Heartfelt empathy? No association between interoceptive awareness, questionnaire measures of empathy, reading the mind in the eyes task or the director task. Front. Psychol., 6, 554.