

Cognitive processing of interoceptive information and negative health outcomes.

Individual differences in interoceptive sensitivity (IS) have been related to sub-optimal decisions and health outcomes. Beyond the perceptual level, cognitive processing of interoceptive information might play a central role in the mediation of these effects. We investigated the relation of perception and cognition in terms of their perceptual and behavioral outcomes. Our results strengthened the assumption of interaction effects between IS and (dys)functional cognitive-emotional processing on behavioral outcomes.

Enhanced IS has been related to an increased emotional bias in complex decision-making (Sütterlin et al., 2013). These potentially beneficial effects of interoceptive information in intuitive decision-making are in contrast to detrimental effects of available interoceptive information in Panic Disorder patients (Wölk et al., 2014). In healthy samples, our recent research suggests that dysfunctional cognitive processing of interoceptive cues increases the subjective experience of physical pain in the absence of a noxious stimulus. In a Thermal Grill (TG) the perception of illusory "paradoxical pain" (Scheuren et al., 2015) was predicted by the individual's level of IS. This effect was enhanced in presence of a high personality trait of ruminative thinking and reflected in cardiovascular correlates.

While IS and the habitual use of rumination as a dysfunctional emotion regulation strategy revealed independent contributions on the perceptual outcome in the TG paradigm, the interaction of both predictors strengthened the model. More recently, the habitual use of rumination as a dysfunctional emotion regulation strategy has been related to high IS in adolescents (De Witte et al., 2015).

The implications of these findings are discussed in the light of the potential role of the training of metacognitive awareness across domains (Meessen et al., in press) and the role of altered interoceptive processes for the development and understanding of impaired decision-making in behavioral and substance addiction.

References

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