

What Is Interoception and Why It Matters: The Somatic Foundation of Emotion in the Theory of Constructed Emotion

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Abstract

Interoception, the perception of internal bodily states, plays a foundational role in the construction of emotions. According to the Theory of Constructed Emotion (TCE), emotions are not reactive responses but predictive constructions rooted in bodily sensations and shaped by conceptual learning. This article explores the neuroscience of interoception, its role in emotional life, and its relevance to clinical work, self-regulation, trauma, and health. We examine how enhanced interoceptive awareness promotes emotional granularity and psychological well-being and how disrupted interoception is linked to psychiatric disorders such as anxiety, depression, and alexithymia.

Keywords

Interoception, Constructed Emotion, Emotional Awareness, Emotional Granularity, Mindfulness, Anxiety, Predictive Brain, Somatic Psychology

Introduction

For centuries, emotions have been viewed primarily as cognitive or reactive processes, with the body playing a secondary role. Recent research in neuroscience, however, reveals that emotional life is deeply embodied. At the core of this embodied perspective lies interoception—the brain's process of sensing, interpreting, and predicting the internal state of the body (Craig, 2002; Barrett & Simmons, 2015).

In the Theory of Constructed Emotion, interoception serves as the raw material from which the brain constructs emotion concepts (Barrett, 2017). This shift in focus from cognition to sensation has significant implications for clinical work, self-understanding, trauma recovery, and emotional development.

Theoretical Framework

What Is Interoception?

Interoception refers to the processing of internal bodily sensations such as heartbeat, respiration, hunger, thirst, pain, and visceral feelings (Craig, 2002). It includes both bottom-up input from the body and top-down predictions from the brain. These predictions are continuously updated based on past experiences, goals, and environmental context (Seth & Friston, 2016).

Interoception in the Constructed Emotion Model

In the TCE framework, the brain uses interoceptive input to predict what bodily state is likely occurring and then categorizes it using learned emotion concepts (Barrett, 2017). This means that a fluttering chest could become “anxiety,” “excitement,” or even “love” depending on context, history, and belief.

Interoception is not just passive sensing; rather, it is active inference: the brain predicts internal changes and updates them only if prediction errors arise (Barrett & Simmons, 2015).

Application / Analysis

The Role of Interoception in Emotional Awareness

People with high interoceptive accuracy are more adept at identifying and regulating their emotions (Füstös et al., 2013). They can distinguish subtle variations in bodily signals, leading to greater emotional granularity, which is the ability to label emotions with specificity (Kashdan et al., 2015). Emotional granularity is linked to better coping, fewer mood swings, and reduced psychological distress.

Disrupted Interoception in Mental Health

Altered interoception has been implicated in:

- Anxiety and Panic Disorders: Misinterpretation of bodily cues (e.g., rapid heartbeat) as signs of danger (Domschke et al., 2010)
- Depression: Blunted interoceptive awareness and poor body-state regulation (Avery et al., 2014)
- Alexithymia: Difficulty identifying emotions due to low interoceptive access (Herbert et al., 2011)
- Eating Disorders and PTSD: Disturbed body ownership and dysregulated prediction about internal states (Khalsa et al., 2018)

Clinical Interventions that Target Interoception

- Mindfulness and Body Scan Practices enhance awareness of subtle sensations (Farb et al., 2015)
- Somatic Experiencing and Sensorimotor Psychotherapy use interoceptive cues to process trauma (Ogden & Fisher, 2015)
- CBT and ACT integrate awareness of bodily signals for emotional regulation (Hayes et al., 2006)
- Biofeedback helps improve accuracy in perceiving signals like heartbeat and breath (Schandry, 1981)

Implications

For Clinical Practice

Training clinicians and clients to work with bodily sensations as core elements of emotional experience offers an accessible route to insight and healing. By helping clients interpret

interoceptive signals more accurately and flexibly, we can reduce distress and increase self-regulation capacity.

For Education and Prevention

Introducing interoception-based curricula in schools, such as breath awareness, mindful movement, and emotional vocabulary, can build resilience from a young age. These skills are especially critical in trauma-informed and emotionally supportive learning environments.

For Health and Public Policy

Interoception is linked to metabolic regulation, stress response, and immune functioning. Understanding its role bridges physical and mental health and calls for more integrative approaches to care (Critchley & Harrison, 2013).

Conclusion

Interoception is the foundation upon which emotions are built. As the brain predicts and categorizes bodily sensations, it constructs emotional experiences that guide our decisions, behavior, and well-being. Recognizing the centrality of interoception in the Theory of Constructed Emotion allows us to move from treating emotions as mysterious reactions to understanding them as deeply embodied predictions—predictions we can explore, refine, and ultimately transform.

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