LOG ID	BOOK REFERENCE	RCT FILTER	CONFIDENCE TIER
SEC A.2	DIRECTORY A: BACKEND SCHEMATIC (Multi-Agent Architecture)	OFF	CONSENSUS

AUDITED CLAIM

METZINGER PATCH (PHENOMENAL SELF-MODEL)

SYSTEMS MODEL — AS STATED IN THE BOOK

> Clinically, cognitive neuroscience confirms that the subjective sense of self is not a permanent, localized neuroanatomical structure, but rather a **dynamic, transient self-model** generated by distributed brain networks to simulate, predict, and adaptively **navigate the environment**.

VALIDATION QUERY

Is the subjective sense of self characterized as a transient cognitive self-model generated to navigate the environment rather than a permanent neuroanatomical structure?

EMPIRICAL FINDING

Current cognitive and interoceptive models establish that the subjective sense of self is not a localized, permanent anatomical structure in the brain. Rather, selfhood is a **transient, dynamic cognitive model** constructed by distributed, interacting neural networks designed to help the organism predict, simulate, and adaptively **navigate the environment**.

PRIMARY ANCHORS

→ **Martinelli et al., 2013, Human Brain Mapping**

→ **Spreng et al., 2009, Journal of Cognitive Neuroscience**

ABOUT THIS RECORD

Each claim in the book is decompiled from its IT metaphor into a naked, falsifiable scientific claim, then anchored to a **primary peer-reviewed source**. Claim and anchor are queried against the Consensus academic database (200M+ papers) under a fixed protocol — top-tier **Q1/Q2 journals only**, preprints excluded, human studies only. If a hypothesis fails the audit, the build is rejected: the AI generates the syntax; the peer-reviewed grid validates the physics.

CONFIDENCE TIERS

- **CONSENSUS ◀ this log** — broadly established, highly replicated mechanics.
- **EMERGING** — plausible, actively researched; no universal consensus yet.
- **EXPERIMENTAL** — contested, extrapolated, or purely theoretical.

RCT FILTER — Controlled Studies is ON for interventions (a forced action must beat a control) and OFF for mechanisms (so foundational neuroscience isn't blocked).

Yes, the **subjective sense of self** is mostly understood as a **dynamic, distributed model**, not a fixed structure.

1. Introduction

Across this corpus, the dominant view is that the subjective sense of self is not a single permanent neuroanatomical object but a set of dynamically constructed processes supported by distributed, interacting brain systems. Foundational neuroimaging and meta-analytic work tied self-referential processing to cortical midline structures, especially medial prefrontal and posterior midline regions, but these papers described those regions as supporting self-related processing or self-model generation rather than housing a unitary self entity (Northoff et al., 2006; Northoff & Bermpohl, 2004; Denny et al., 2012). Several influential frameworks explicitly argue against a unitary self-process and instead divide selfhood into partially dissociable bodily, affective, agentive, autobiographical, and social levels (Seth & Friston, 2016; Martinelli et al., 2013).

The literature also converges on the idea that selfhood is adaptive and context-sensitive. Self-related activity overlaps strongly with default-mode, autobiographical memory, prospection, navigation, and social cognition networks, which suggests the self is embedded in systems for simulating behavior, projecting across time, and guiding action rather than standing apart as a fixed anatomical module (Gusnard et al., 2001; Spreng et al., 2009; Koban et al., 2021). Experimental perturbations further show that self-experience can be transiently altered by psychedelics, mindfulness training, multisensory conflict, electrical stimulation, trauma, and neurodegeneration, which is hard to reconcile with the idea of an immutable self structure (Siegel et al., 2024; Farb et al., 2007; Dary et al., 2023).

Is the subjective sense of self characterized as a transient cognitive self-model generated to navigate the environment rather than a permanent neuroanatomical structure?
Requires at least 5 papers that directly answer your question. Try adjusting your query to find more papers.

FIGURE 1 Research consensus on dynamic versus fixed selfhood

The meter should lean toward yes, but not as an absolute. The corpus strongly supports a dynamic, distributed, and partially model-based account of selfhood, while also showing that these transient constructions depend on recurring neural substrates such as mPFC, PCC, insula, TPJ, hippocampus, and parietal cortex (Northoff et al., 2006; Davey et al., 2016; Dary et al., 2023).

2. Methods

This deep search ran over more than 170 million research papers indexed in Consensus, including Semantic Scholar, PubMed, and related sources. The workflow began with 1,256,026 papers from the user query, expanded through targeted searches on self-models, neuroanatomy, transience, and embodied selfhood, and then added citation-crawled related work. Machine relevance filtering screened 230 papers, 183 passed thresholding after deduplication and relevance checks, and 50 were included in the final synthesis.

Search Strategy

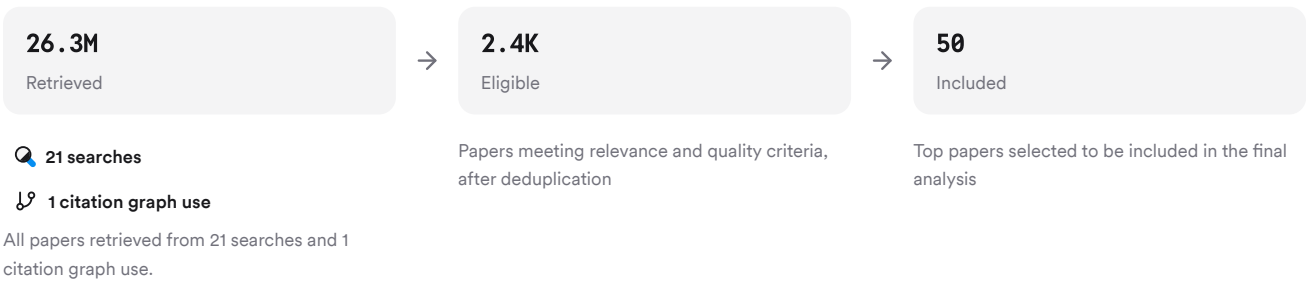

FIGURE 2 Deep search screening and inclusion workflow

Searches combined foundational self theories, neuroanatomical self research, dynamic self-model frameworks, and perturbation studies testing self plasticity.

3. Results

3.1 Key Papers

Several papers anchor the field because they define the main alternatives in the question: distributed neural correlates of self-processing, dynamic levels of selfhood, and links between self-related processing and adaptive simulation or bodily regulation. Meta-analyses by Northoff and colleagues, Spreng and colleagues, and Martinelli and colleagues are especially central because they synthesize large self-related literatures rather than single-task effects (Northoff et al., 2006; Spreng et al., 2009; Martinelli et al., 2013).

Paper	Summary
(Martinelli et al., 2013)	Cortical midline system supports self-related processing (Northoff et al., 2006)
(Fingelkurts et al., 2020)	Core network overlaps memory, prospection, navigation (Spreng et al., 2009)
(Blanke, 2012)	Declarative self is multidimensional, not monolithic (Martinelli et al., 2013)

FIGURE 3 Foundational papers anchoring the self literature

3.2 Functional Organization

The strongest recurring result is that selfhood fractionates into multiple components rather than mapping onto one stable anatomical locus. Cognitive and affective self-reflection dissociate in adjacent prefrontal regions (Moran et al., 2006). Self- and other-judgments occupy a ventral-to-dorsal gradient in medial PFC, supporting a distributed rather than localizationist organization (Denny et al., 2012). The declarative self separates into episodic autobiographical memory, semantic autobiographical memory, and conceptual self systems, with a posterior-to-anterior shift as abstraction increases (Martinelli et al., 2013).

Bodily self-consciousness is likewise composite. Multisensory studies link self-identification, self-location, and first-person perspective to temporoparietal, premotor, posterior parietal, and extrastriate cortices rather than to a single “self center” (Blanke, 2012). Electrical brain stimulation reviews extend that point causally, showing that disturbances in ownership, self-location, perspective, and agency arise from a broad network including inferior parietal lobule, cingulum, SMA, posterior insula, precuneus, and hippocampal complex (Dary et al., 2023).

3.3 Self as Model

Dimension	Dynamic Model View	Fixed Structure View	Citations
Core claim	Self is generated by interacting processes	Self resides in one anatomical site	(Seth & Friston, 2016; Northoff et al., 2011)
Adaptive role	Supports simulation and future-oriented control	Not emphasized	(Gusnard et al., 2001; Koban et al., 2021)
Temporal profile	Present and narrative forms can separate	Stable unity assumed	(Farb et al., 2007)
Bodily grounding	Interoceptive and multisensory signals scaffold selfhood	Weak account	(Seth & Friston, 2016; Babo-Rebelo et al., 2016)

Dimension	Dynamic Model View	Fixed Structure View	Citations
Empirical perturbability	Altered by drugs, training, lesions, stimulation	Harder to explain	(Smigielski et al., 2020; Lou et al., 2004)

FIGURE 4 Dynamic versus fixed interpretations of selfhood

The comparison favors the dynamic-model account, but not a fully disembodied one. The self appears model-like because it is constructed, predictive, and revisable, yet it remains constrained by stable large-scale circuitry and bodily signal integration (Koban et al., 2021).

3.4 State Dependence and Perturbation

Psychedelic and contemplative studies show that self-experience is experimentally malleable over minutes to weeks. Psilocybin acutely disrupted functional connectivity, especially in the default mode network, and the magnitude of these changes tracked subjective psychedelic experience (Siegel et al., 2024). EEG work found that psilocybin abolished the usual distinctiveness of self- versus other-related scalp configurations, linking altered self-processing to cingulate and insular changes (Smigielski et al., 2020). Awe also reduced default-mode engagement and self-reflective thought, with participants reporting a “smaller” self (Elk et al., 2019).

Mindfulness training similarly uncoupled habitual narrative self-processing from present-centered bodily awareness. After training, experiential focus shifted activity away from cortical midline regions and toward right insula and lateralized viscerosomatic networks (Farb et al., 2007). Clinical disruption points the same way: mild cognitive impairment reduces self-related mind-wandering and associated default-mode/hippocampal dynamics (Tarailis et al., 2025), and Alzheimer’s-related autobiographical memory decline compromises identity and self-consciousness (Haj et al., 2015).

Results Timeline

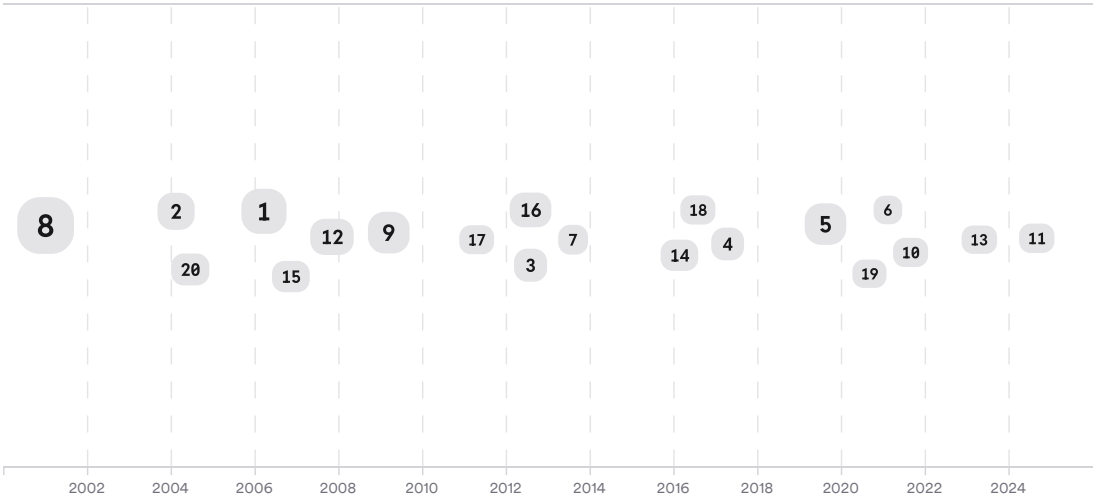

FIGURE 5 Timeline of self research, larger markers indicate more citations

The timeline shows a shift from early localization attempts toward network, embodied, and dynamic accounts. More recent papers increasingly frame the self as hierarchical, predictive, context-sensitive, and experimentally perturbable rather than as a fixed neuroanatomical object (Scalabrini et al., 2024; Koban et al., 2021; Wu et al., 2024).

Top Contributors

Type	Name	Papers
Author	G. Northoff	[7d6a3db04dc5585eb010d210ecb4563d][02316ed9df4255c99af6f990b1bdec58] [5a35938d40a95177b983838913fa987a][8ded4be87c78597dbbed8dfa300b2fd5]

Type	Name	Papers
		[8b72203d05b95167a76c0b10c794e0c3]
Author	O. Blanke	[fa266e275a2150bf95fe960f61cfcc5d][fb67eb38dc3f5e51bb84d55adf9ee64b] [96c14dd054e3562b9de7982e460939e2]
Author	A. Seth	[652a2ae40f8756028b9a178dc202189d][8b72203d05b95167a76c0b10c794e0c3]
Journal	*NeuroImage*	[7d6a3db04dc5585eb010d210ecb4563d][ec4fd6c6834859418da109397eb46abd] [199542703b8f5c42916b9068da0e3c75][effc31a250915751bf1d44165482a16e] [66d2fa58875050f4abe6954b64049456][94dafc4052d656d385ca4500df5a3232] [1eabbffa1aaa54f589812fea159cad51]
Journal	*Human Brain Mapping*	[2db72641f828585fa7365132a88e805a][227923f08d9e5dffba92f5c2d9f7101b] [badb785aa1ee530ea4c31750cd103c13][a10d24dc1255537c92be955e114f38fd] [96c14dd054e3562b9de7982e460939e2]
Journal	*Journal of Cognitive Neuroscience*	[47f7499b68c45b4ea844fe4b7232a721][4e9c37115d8357648f96060f6a24ef63] [22cd6eaa32df545ca0150063d1aac21a][1c9b17cbda2f58ec90962dde3a431482]

FIGURE 6 Authors and journals appearing most often

4. Discussion

The central claim in the question is supported at moderate-to-strong levels, but with an important qualification: the literature rejects a permanent localized self-structure more clearly than it proves one single unified “cognitive self-model” theory. Many studies converge on a distributed architecture and on transient, state-dependent self-experience (Gillihan & Farah, 2005; Millière et al., 2018; Larabi et al., 2020). Fewer directly test the specific evolutionary or navigational language of “generated to navigate the environment,” though several papers do argue that self-models support simulation, interpretation, prediction, and adaptive control in context (Koban et al., 2021; Decety & Sommerville, 2003).

The corpus is strongest when showing that selfhood is multidimensional and perturbable. That conclusion is replicated across meta-analyses, stimulation studies, developmental work, cultural variation, psychiatric disruption, and pharmacological manipulation (Zhu et al., 2007; Buuren et al., 2022; Reinders et al., 2003). Cultural effects on MPFC recruitment, developmental changes in self-referential circuitry, and multiple dissociable forms of self-loss all argue against a rigid hardwired self essence (Zhu et al., 2007; Buuren et al., 2022; Millière et al., 2018).

At the same time, the field does not support the opposite extreme that the self is arbitrary or unconstrained. Stable anatomical hubs recur across paradigms, especially mPFC, PCC/precuneus, insula, TPJ, hippocampus, and parietal cortex (Davey et al., 2016; Babo-Rebelo et al., 2016; Dary et al., 2023). The best interpretation is therefore not “no neuroanatomy,” but “no single permanent self structure”: transient self-models are built from relatively stable neural systems.

Claim	Evidence Strength	Reasoning	Papers
The self is **distributed and multidimensional**, not a single unitary brain module	Strong	Multiple meta-analyses and reviews converge on distinct self components and networks	(Northoff et al., 2006; Martinelli et al., 2013; Gillihan & Farah, 2005)
Subjective self-experience is **state-dependent and transiently alterable**	Strong	Psychedelics, mindfulness, stimulation, and pathology all modify self-experience	(Siegel et al., 2024; Farb et al., 2007; Lou et al., 2004)

Claim	Evidence Strength	Reasoning	Papers
Selfhood is **grounded in bodily and interoceptive processing**	Strong	Interoceptive, heartbeat, insular, and bodily-self studies replicate this link	(Seth & Friston, 2016; Babo-Rebelo et al., 2016; Wu et al., 2024)
The self functions as an **adaptive predictive model for context and action**	Moderate	Strong theory papers and convergent indirect data, but fewer direct causal tests	(Koban et al., 2021; Gusnard et al., 2001)
There is one **permanent neuroanatomical structure** that is the self	Weak	Repeated evidence favors network organization and dissociable components instead	(Denny et al., 2012; Dary et al., 2023; David et al., 2006)

FIGURE 7 Key claims and supporting evidence strength

5. Conclusion

Overall, the literature supports characterizing the subjective sense of self as a transient, dynamically assembled, and functionally adaptive self-model more than as a permanent neuroanatomical structure. The strongest consensus is that selfhood emerges from interacting bodily, mnemonic, affective, and reflective processes implemented in recurring large-scale networks rather than in one fixed brain locus (Seth & Friston, 2016; Koban et al., 2021; Awadhi et al., 2025).

Research Gaps

The main gaps concern direct tests of the adaptive function of self-models, longer-term tracking of self dynamics, and tighter integration of bodily and conceptual accounts.

Topic/Outcome	Longitudinal Data	Causal Perturbation	Cross-Cultural Generalization	Computational Formalization
Narrative self dynamics	4	2	2	3
Bodily self-consciousness	3	10	1	2
Interoceptive self-models	2	4	1	4
Clinical self-disruption	5	2	1	1

Studies richly describe components of selfhood, but far fewer directly test how these components combine into adaptive online models or how they generalize across cultures and time (Davey et al., 2016; Toglia & Goverover, 2022; Zhu et al., 2007).

Open Research Questions

Future work is moving toward causal, computational, and longitudinal tests of self-construction.

Question	Why
How do bodily and narrative self-processes interact moment-to-moment during natural behavior?	This would link embodied and autobiographical accounts that are often studied separately despite likely continuous interaction.
Which neural perturbations change self-experience without broadly impairing cognition?	This would distinguish self-specific mechanisms from general attention, memory, or arousal effects.
Can predictive self-model theories quantitatively forecast changes in selfhood across psychedelics, meditation, and disease?	A common formal framework would test whether apparently different self disruptions share one computational architecture.

The answer to the question is therefore yes in broad terms: the self is best characterized as a transient, distributed, adaptive construction built from stable but non-exclusive neural systems.

References

Awadhi, A. A., Kiss-Bodolay, D., Grannò, S., Ronchi, R., Bobbink-Blondiaux, E., Tyrand, R., Boëx, C., Voruz, P., Iannotti, G., Péron, J., Herbelin, B., Blanke, O., & Schaller, K. (2025). Human self and Neurosurgery: Advances and insights from Geneva. *Brain & Spine, 5*. https://doi.org/10.1016/j.bas.2025.104385

Babo-Rebelo, M., Richter, C. G., & Tallon-Baudry, C. (2016). Neural Responses to Heartbeats in the Default Network Encode the Self in Spontaneous Thoughts. *The Journal of Neuroscience, 36*, 7829 - 7840. https://doi.org/10.1523/jneurosci.0262-16.2016

Blanke, O. (2012). Multisensory brain mechanisms of bodily self-consciousness. *Nature Reviews Neuroscience, 13*, 556-571. https://doi.org/10.1038/nrn3292

Buuren, M., Sijtsma, H., Lute, N., Rijn, R. V., Hollarek, M., Walsh, R., Lee, N., & Krabbendam, L. (2022). Development of the neural correlates of self- and other-referential processing across adolescence. *NeuroImage*, 119032. https://doi.org/10.1016/j.neuroimage.2022.119032

Dary, Z., Lenggenhager, B., Lagarde, S., Villalon, M. S., Bartolomei, F., & Lopez, C. (2023). Neural bases of the bodily self as revealed by electrical brain stimulation: A systematic review. *Human Brain Mapping, 44*, 2936 - 2959. https://doi.org/10.1002/hbm.26253

Davey, C., Pujol, J., & Harrison, B. (2016). Mapping the self in the brain's default mode network. *NeuroImage, 132*, 390-397. https://doi.org/10.1016/j.neuroimage.2016.02.022

David, N., Bewernick, B., Cohen, M. X., Newen, A., Lux, S., Fink, G., Shah, N., & Vogeley, K. (2006). Neural Representations of Self versus Other: Visual-Spatial Perspective Taking and Agency in a Virtual Ball-tossing Game. *Journal of Cognitive Neuroscience, 18*, 898-910. https://doi.org/10.1162/jocn.2006.18.6.898

Decety, J., & Sommerville, J. A. (2003). Shared representations between self and other: a social cognitive neuroscience view.. *Trends in cognitive sciences, 7 12*, 527-33. https://doi.org/10.1016/j.tics.2003.10.004

Denny, B. T., Kober, H., Wager, T., & Ochsner, K. (2012). A Meta-analysis of Functional Neuroimaging Studies of Self- and Other Judgments Reveals a Spatial Gradient for Mentalizing in Medial Prefrontal Cortex. *Journal of Cognitive Neuroscience, 24*, 1742-1752. https://doi.org/10.1162/jocn_a_00233

Elk, M., Gomez, A. A. M., Zwaag, W., Schie, H. T., & Sauter, D. (2019). The neural correlates of the awe experience: Reduced default mode network activity during feelings of awe. *Human Brain Mapping, 40*, 3561 - 3574. https://doi.org/10.1002/hbm.24616

Farb, N., Segal, Z., Mayberg, H., Bean, J., McKeon, D., Fatima, Z., & Anderson, A. (2007). Attending to the present: mindfulness meditation reveals distinct neural modes of self-reference.. *Social cognitive and affective neuroscience, 2 4*, 313-22. https://doi.org/10.1093/scan/nsm030

Fingelkurts, A., Fingelkurts, A., & Kallio-Tamminen, T. (2020). Selfhood triumvirate: From phenomenology to brain activity and back again.. *Consciousness and cognition, 86*, 103031. https://doi.org/10.1016/j.concog.2020.103031

Gillihan, S. J., & Farah, M. (2005). Is self special? A critical review of evidence from experimental psychology and cognitive neuroscience.. *Psychological bulletin, 131 1*, 76-97. https://doi.org/10.1037/0033-2909.131.1.76

Gusnard, D., Akbudak, E., Shulman, G., & Raichle, M. (2001). Medial prefrontal cortex and self-referential mental activity: Relation to a default mode of brain function. *Proceedings of the National Academy of Sciences of the United States of America, 98*, 4259 - 4264. https://doi.org/10.1073/pnas.071043098

Haj, M. E., Antoine, P., Nandrino, J., & Kapogiannis, D. (2015). Autobiographical memory decline in Alzheimer's disease, a theoretical and clinical overview. *Ageing research reviews, 23*, 183 - 192. https://doi.org/10.1016/j.arr.2015.07.001

Koban, L., Gianaros, P., Kober, H., & Wager, T. (2021). The self in context: brain systems linking mental and physical health. *Nature reviews. Neuroscience, 22*, 309 - 322. https://doi.org/10.1038/s41583-021-00446-8

Larabi, D., Renken, R., Cabral, J., Marsman, J., Aleman, A., & Ćurčić-Blake, B. (2020). Trait self-reflectiveness relates to time-varying dynamics of resting state functional connectivity and underlying structural connectomes: Role of the default mode network. *NeuroImage*, 116896. https://doi.org/10.1016/j.neuroimage.2020.116896

Lou, H., Luber, B., Crupain, M. J., Keenan, J., Nowak, M., Kjaer, T., Sackeim, H., & Lisanby, S. (2004). Parietal cortex and representation of the mental Self.. *Proceedings of the National Academy of Sciences of the United States of America, 101 17*, 6827-32. https://doi.org/10.1073/pnas.0400049101

Martinelli, P., Sperduti, M., & Piolino, P. (2013). Neural substrates of the self-memory system: New insights from a meta-analysis. *Human Brain Mapping, 34*. https://doi.org/10.1002/hbm.22008

Millière, R., Carhart-Harris, R. L., Roseman, L., Trautwein, F.-M., & Berkovich-Ohana, A. (2018). Psychedelics, Meditation, and Self-Consciousness. *Frontiers in Psychology, 9*. https://doi.org/10.3389/fpsyg.2018.01475

Moran, J. M., Macrae, C., Heatherton, T., Wyland, C. L., & Kelley, W. M. (2006). Neuroanatomical Evidence for Distinct Cognitive and Affective Components of Self. *Journal of Cognitive Neuroscience, 18*, 1586-1594. https://doi.org/10.1162/jocn.2006.18.9.1586

Northoff, G., Heinzel, A., Greck, M. D., Bermpohl, F., Dobrowolny, H., & Panksepp, J. (2006). Self-referential processing in our brain - A meta-analysis of imaging studies on the self. *NeuroImage, 31 1*, 440-57. https://doi.org/10.1016/j.neuroimage.2005.12.002

Northoff, G., & Bermpohl, F. (2004). Cortical midline structures and the self.. *Trends in cognitive sciences, 8 3*, 102-7. https://doi.org/10.1016/j.tics.2004.01.004

Northoff, G., Qin, P., & Feinberg, T. (2011). Brain imaging of the self--conceptual, anatomical and methodological issues.. *Consciousness and cognition, 20 1*, 52-63. https://doi.org/10.1016/j.concog.2010.09.011

Reinders, A. A. T. S., Nijenhuis, E., Paans, A., Korf, J., Willemsen, A., & Boer, J. A. D. (2003). One brain, two selves. *NeuroImage, 20 4*, 2119-25. https://doi.org/10.1016/j.neuroimage.2003.08.021

Scalabrini, A., Cavicchioli, M., Benedetti, F., Mucci, C., & Northoff, G. (2024). The nested hierarchical model of self and its non-relational vs relational posttraumatic manifestation: an fMRI meta-analysis of emotional processing. *Molecular Psychiatry, 29*, 2859 - 2872. https://doi.org/10.1038/s41380-024-02520-w

Seth, A., & Friston, K. J. (2016). Active interoceptive inference and the emotional brain. *Philosophical Transactions of the Royal Society B: Biological Sciences, 371*. https://doi.org/10.1098/rstb.2016.0007

Siegel, J., Subramanian, S., Perry, D., Kay, B., Gordon, E. M., Laumann, T. O., Reneau, T. R., Metcalf, N. V., Chacko, R. V., Gratton, C., Horan, C., Krimmel, S., Shimony, J., Schweiger, J., Wong, D. F., Bender, D. A., Scheidter, K. M., Whiting, F. I., Padawer-Curry, J. A., . . . Dosenbach, N. (2024). Psilocybin desynchronizes the human brain. *Nature, 632*, 131 - 138. https://doi.org/10.1038/s41586-024-07624-5

Smigielski, L., Kometer, M., Scheidegger, M., Stress, C., Preller, K. H., Koenig, T., & Vollenweider, F. X. (2020). P300-mediated modulations in self–other processing under psychedelic psilocybin are related to connectedness and changed meaning: A window into the self–other overlap. *Human Brain Mapping, 41*, 4982 - 4996. https://doi.org/10.1002/hbm.25174

Spreng, R. N., Mar, R., & Kim, A. (2009). The Common Neural Basis of Autobiographical Memory, Prospection, Navigation, Theory of Mind, and the Default Mode: A Quantitative Meta-analysis. *Journal of Cognitive Neuroscience, 21*, 489-510. https://doi.org/10.1162/jocn.2008.21029

Tarailis, P., Lory, K., Unschuld, P. G., Michel, C. M., & Bréchet, L. (2025). Self-related thought alterations associated with intrinsic brain dysfunction in mild cognitive impairment. *Scientific Reports, 15*. https://doi.org/10.1038/s41598-025-97240-8

Toglia, J., & Goverover, Y. (2022). Revisiting the dynamic comprehensive model of self-awareness: a scoping review and thematic analysis of its impact 20 years later. *Neuropsychological Rehabilitation, 32*, 1676 - 1725. https://doi.org/10.1080/09602011.2022.2075017

Wu, H., Huang, Y., Qin, P., & Wu, H. (2024). Individual Differences in Bodily Self-Consciousness and Its Neural Basis. *Brain Sciences, 14*. https://doi.org/10.3390/brainsci14080795

Zhu, Y., Zhang, L., Fan, J., & Han, S. (2007). Neural basis of cultural influence on self-representation. *NeuroImage, 34 3*, 1310-6. https://doi.org/10.1016/j.neuroimage.2006.08.047