

Beyond Cognitivism:

A Dynamic Systems and Pluralist Reframing of Developmental Social Cognition

Social cognition refers to the processes by which individuals perceive, interpret, and respond to information about others within the social environment (Frith & Frith, 2007; Nurius, 2013). Milestones such as gaze following, joint attention, false-belief understanding and theory of mind (Stephenson et al., 2021), are treated as key indicators that reflect the child's growing capacity to understand others as intentional, mental agents. However, how these phenomena are defined, studied, and interpreted is not neutral. They are influenced by the theoretical and epistemological assumptions that guide research in developmental psychology. Social cognition has been predominantly theorised through the cognitivist paradigm, which conceptualizes the mind as an information-processing system, relying on foundational assumptions of representationalism, mediational epistemology, and inferentialism. However, this dominant approach perpetuates a narrow and exclusionary account of development that neglects the dynamic, context-sensitive, and emergent dimensions inherent to developmental processes.

In response, this paper presents Dynamic Systems Theory (DST), grounded in the foundational work of Thelen and Smith (1994), as a compelling alternative. It does so by equally emphasising the interactions between biological, social, and environmental factors in cognition. DST reframes social cognition as an emergent, multi-causal process arising from real-time interactions between the brain, body, and environment. Drawing on principles of self-organization, soft-assembly, and nested timescales, it argues that developmental change is non-linear, characterized by attractor states and phase transitions rather than fixed stages. To illustrate the explanatory potential of DST, I focus on theory of mind using Blijd-Hoogewys and van Geert (2017) and Papera et al. (2019), showing how non-linear developmental patterns and dynamic trade-offs reveal alternative interpretations of widely studied phenomena. Methodologically, this necessitates a shift from cross-sectional designs to dense time-series analyses and micro-genetic methods, which are capable of capturing the moment-to-moment variability and instability that drive developmental reorganization.

While cognitivism and DST may appear mutually exclusive, this paper advocates for a pluralistic approach that facilitates productive engagement between competing paradigms. Drawing on Massimi (2022) and Chang (2012), I argue that embracing pluralism across

paradigm-level perspectives, methodological approaches, and within social cognition research, enables a more comprehensive understanding of complex phenomena. A pluralist stance recognizes that scientific frameworks operate within distinct "problem fields". While cognitivism may effectively map the structural architecture of mental state attribution, DST is uniquely equipped to explain the temporal and dynamical nature of how such abilities emerge and change over time. Pluralism moves the field beyond the monoculture of theory of mind research in social cognition, fostering a more inclusive, culturally sensitive, and empirically nuanced understanding of how social cognition unfolds in the real world.

Finally, this paper addresses potential objections claiming that pluralism risks conceptual fragmentation and therefore warrants integration. I argue that encouraging interaction among diverse perspectives offers a more effective strategy that remains consistent with a pluralistic stance. The tension between these paradigms should be viewed not as a fragmentation of the field, but as a productive interaction that enhances epistemic rigor. Additionally, I discuss some of the practical challenges of practising DST within a predominantly cognitivist domain.

Keywords: cognitivism, dynamic systems theory, pluralism, social cognition, theory of mind

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