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In *Out of Mind: Mode, Mediation and Cognition in Twenty-First-Century Narrative*, Torsa Ghosal entangles cognitive science with literary criticism to inspect how contemporary literature conceptualizes its characters’ and readers’ minds, highlighting that our historical moment necessarily shapes that conceptualization. Ghosal concludes that these texts of the 2000s characterize cognition as inevitably extending from and engaging with our embodied present. As she embarks on this argument, Ghosal emphasizes co-emergence; literature does not simply reflect the current scientific consensus but also actively constructs our perceptions of how both normative and non-normative minds work. Ghosal pays particular attention to the literal construction of these texts, focusing on their material features to suggest that such materiality orients us to view cognition as sensorial and environmental. She thus chooses texts that she considers multimodal, meaning they incorporate multiple semiotic systems into their narratives, including typography and images. In Ghosal’s framing, these overt multimodalities usefully challenge the idea that thinking could ever be amodal. By marshalling extensive interdisciplinary knowledge, Ghosal provides a model of nuanced and careful readings that exhibit the keen insights that twenty-first-century literature can offer.

To craft this argument, Ghosal organizes her book into four chapters, each of which analyzes two novels that share a modality. These books were all published between 2004 and 2014. When discussing each set of books, Ghosal deftly interweaves relevant psychological and philosophical frameworks. She also interweaves her analyses of the books themselves, though, given the complexity of their plots, it may have been beneficial to handle one at a time. Nonetheless, Ghosal’s form mimics her argument, in which she repeatedly demonstrates that her studied texts’ material configurations represent our minds as intermingled and interactive. Because of the significance of those configurations, Ghosal’s use of figures—at least one for each novel—become key resources for understanding how the books enact cognition.

In chapter one, entitled ‘Typographic Minds: Cognitive Disabilities and Explanatory Pluralism,’ Ghosal asserts that Mark Haddon’s *The Curious Incident of the Dog in the Night-Time* (2003) and Steven Hall’s *The Raw Shark Texts* (2007) confront the first generation of cognitive science, which claimed that the mind resembles a computer. Ghosal suggests that this thinking, as well as *Curious Incident*, reify a Cartesian split between the mind and body that devalues embodiment and stigmatizes neurodivergence. Even so, both Haddon—perhaps unintentionally—and Hall imply that meaning-making depends on the body because their creative formatting choices attend ‘to the multisensory nature of the reading experience’ (Ghosal 2021: 29). Like Haddon, Hall’s novel also features characters whose minds mimic a computer, but, unlike Haddon, they
remain antagonists, while the protagonist becomes increasingly aware of his body’s importance in navigating his environment. Using possible worlds theory and attending to various typographical innovations, Ghosal (2021) determines that, taken together, these texts highlight the possibilities and problems ‘of taking computers as medium and analog for thought representation’ (61). She identifies this computationalism as a receding trend in cognitive science, and the rest of the books discussed in *Out of Mind* resist this framework, as well.

The next chapter, ‘Selfieing Minds: Picturing and Shaping Subjectivities,’ turns to Steve Tomasula’s *The Book of Portraiture* (2006) and Aleksander Hemon’s *The Lazarus Project* (2008) to designate an illustrative term: selfieing. According to Ghosal, selfieing refers to the mechanisms of representing the self which in turn delineate our image of subjectivity. Ghosal identifies that a typical selfie positions the self as social and repeatable, a positioning that is also apparent in the second generation of cognitive science and, Ghosal argues, Tomasula’s and Hemon’s novels. The novels depict how a sense of self emerges in interactions across time and space rather than as ‘a stable and amodal mental construction’ (Ghosal 2021: 68). Ghosal attends to how the narratives embed pictures to challenge the cognitive framing that positions people as looking mad, or certain perspectives—like a psychiatrist’s diagram—as objective. Instead, Ghosal (2021) argues, these pictures reveal how subjectivity develops and re-develops, always in relation to others, using ‘predictive reasoning as well as perceptual and sensorimotor resonances’ to negotiate the pliable borders between the self and any given other (78). Importantly, especially regarding *Book of Portraiture*, Ghosal stresses that the body functions as the centerpiece of narrative, here as the site of the interactions comprising subjectivity, and suggests that the book’s physicality also focalizes the reader’s body.

Chapter Three, ‘Spatial Thinking, Spatial Reading,’ considers how we locate our bodies in space, specifically regarding the ways that Kamila Shamsie’s *Kartography* (2002) and J.J. Abrams and Doug Dorst’s *S.* (2013) map their so-called storyworlds. Whether this mapping happens in literal maps embedded in the texts, or semantic maps in which the language takes the reader on a tour, this modality underscores how place impacts identity. Ghosal clearly articulates that these novels counteract the notion that maps are static or objective; instead, both novels present maps as constantly under revision and dependent on the mapper’s perspective. Within the novels, maps are not simply downloaded but actively designed and re-designed based on context. As a result, these maps and the minds in which they appear are multi-layered. Moreover, because maps often feature handwriting and require the reader to tilt the page, they highlight the materiality of reading and thinking. In *Kartography*, the maps serve to claim belonging, whereas in *S.*, the maps serve to claim proximity, but both novels
critically examine ‘cartography as a means of knowledge production,’ representing it as an essential strategy for cognition and yet also one that derives from and adapts to specific conditions (Ghosal 2021: 143). In a particularly impactful point, Ghosal notes that the characters of Kartography and S. think not only according to the before and after, but also, and perhaps more so, according to the here and there.

In the final chapter, or, ‘Anti-Archival Minds: Collecting, Deleting, and Scaling Memories,’ Ghosal uses Graham Rawle’s Woman’s World (2005) and Lance Olsen’s Theories of Forgetting (2014) to argue that minds, and their memories, do not function as an archive—an entity that computationalism has presumed to be amodal, abstract and fixed. Instead, Ghosal contends that novels such as Rawle’s and Olsen’s depict memory as a process of reconstruction, which can entail deliberate destruction. Unlike the first generation of cognitive science, in which memory functions like data in a hard drive and forgetting is an error, these novels foreground how their characters strategically recollect, and sometimes forget, their pasts. Modeled after a scrapbook, Woman’s World materializes the way that memory can be both ‘generative and distortive,’ a product of picking, choosing and organizing (Ghosal 2021: 166). Through his collages, the protagonist narrates his dead sister’s life but excludes her death, instead play-acting as his sister. In Ghosal’s reading, these processes of artistic representation, selective memorialization and literal embodiment always coalesce. The intergenerational narratives of Theories, in which a sequence of narrators comment on the artwork of those before them, similarly show that memories must be made. Ghosal also explores how Theories addresses the unique demands of narrating climate change; in her reading, minds are very much products of their environments, but unprepared to consider the long arc of environmental history, which exceeds any individual’s embodied memory. This tension requires innovative narrations, as exemplified by Theories, with its imaging of decay and dissolution. Although this prescient topic would be fascinating to consider further, Ghosal ends her discussion there to begin summarizing Out of Mind.

In her coda, which discusses ‘Binge Reading versus Picnoleptic Reading,’ Ghosal considers her readers’ minds, touching on Jonathan Safran Foer’s Tree of Codes (2010) to suggest that reading requires creative, tangible and imaginative work rather than mere reception or retrieval. While she has touched on this topic throughout, Ghosal uses this space to dwell on the reader’s experience. She notes that, because Tree of Codes features numerous cut-outs that mangle the page, its readers must create the meaning themselves. Ghosal thus applies the understanding of cognition that these multimodal texts have promoted—in which the mind is embodied, adaptive and interactive—to reading. Ghosal glosses picnoleptic reading as a practice of interruption, understanding it not as a disorder but as a strategy to engage with our immersion in semiotic systems,
or, our digital ecology. In this light, novels like the nine that Ghosal discusses in *Out of Mind* effectively respond to that digital ecology because they offer a plethora of avenues with which readers might interact. Furthermore, Ghosal clarifies, these novels do not just respond to trends but also themselves provide models for how we think about thinking.

In conclusion, Ghosal’s book provides a clear-sighted, careful engagement with the cognitive models proposed in scientific and literary thought, as well as with the implications on how and who we pathologize and minoritize. As all of Ghosal’s studied texts, excepting one, were written by white men, building on Ghosal might entail extending her commentaries on how systems of power—like race, gender and class—mediate the contemporary imagination of how minds work.
Competing Interests
The author has no competing interests to declare.

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