

Tattersall 2009). That innovation allowed us to communicate in increasingly complex ways about ourselves, about our mental states, and about the world around us. It also allowed us to share, and thus to propagate and elaborate on, concepts of alternative realities (circumstances, states, and entities that are not immediately available or observable), which exponentially increased the complexity and sophistication of our capacity for imagination (Dor 2015).

We take this capacity for granted today, but the ability to symbolically structure and then socially transmit mental representations of complex circumstances, agents, roles, structures, and norms that are not based on immediately available data is a uniquely human evolutionary adaptation that burst a cognitive dam. This technology made it possible to reason and to pass on knowledge about alternative realities such as “yesterday,” “tomorrow,” who “we” are, and “the way things should be” (Van Leeuwen 2016; Wood and Shaver 2018, 9–10). This fundamentally altered the constitution of human sociality, and among many other things, it made it possible to reason together about all the agents in the world around us that we do not see, including their intentions, their faculties, and whatever sociality might obtain among them. In virtually all societies across time and space, this resulted in the development of concepts of unseen agents with biographies, faculties, personalities, relationships, and even institutions.<sup>8</sup> Because the agents that are most familiar and important to us are other human persons, they are the most available and accessible templates for elaboration, and thus the most common. Concepts of unseen agency, more often than not, build on salient features of personhood.

On the individual level, these concepts of unseen agency are usually fleeting, since they are tethered to the individual’s own situationally emergent intuitions. To spread and preserve them across time and space requires their social transmission through more reflective reasoning and discussion. Human language was one important catalyst for this, but the material representation of such concepts was another. Materially representing concepts of unseen agency anchors them in media that can more efficiently and reliably “store” and transmit certain features. This frees up cognitive real estate that might otherwise be required to maintain or transmit those features so that it can be dedicated to further elaboration and development.<sup>9</sup> (How many phone numbers have you memorized in the last five years?) This material mode of transmission is particularly important for more counterintuitive agent concepts like theriomorphic (that is, having animal form) or hybrid agents, which require more cognitive effort to process (cf. Mithen 1998).

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<sup>8</sup> According to the most common theories, these features become culturally adaptive as they are deployed in the maintenance of social cohesion. See Atran 2012; Purzycki, Haque, and Sosis 2014. For critiques of this approach, see Pyysiäinen 2014, Vlerick 2020.

<sup>9</sup> This “ratcheting effect” is frequently referred to as “cumulative culture.” See Dean et al. 2014; Haidle 2019.