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The mind of the market:

Lay beliefs about the economy as a willful, goal-oriented agent

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Abstract

We propose an extension to Boyer & Petersen's (B&P's) framework for folk-economic beliefs, suggesting that certain evolutionarily acquired cognitive inference systems can cause modern humans to perceive abstract systems such as the economy as willful, goal-oriented agents. Such an anthropomorphized view, we argue, can have meaningful effects on people's moral evaluations of these agents, as well as on their political and economic behavior.

Boyer & Petersen (B&P) provide a compelling framework for a variety of folk beliefs about the economy (FEBs), focusing on biases attributable to evolutionarily acquired intuitive inference systems and certain cognitive dispositions that foster their cultural transmission. We propose an extension of B&P's framework, suggesting that people have specific beliefs about the economy *itself*, which may partly account for deviations from normative understandings of economic processes, and which may affect people's political beliefs and economic behaviors. Specifically, in line with Adam Smith's metaphor of an "invisible hand" that governs the market, we argue that people anthropomorphize economy-related constructs such as "the economy," "the free market," or "capitalism," and view them as willful, goal-oriented agents.

This phenomenon, we contend, arises as a side-effect of an intuitive tendency to perceive minds and bodies as separate entities, which in itself seems to be rooted in fundamental cognitive systems that humans acquired in their ancestral past (Bloom 2004; Forstmann & Burgmer 2015; 2017). When upholding social relations became a crucial factor in human survival (see Barton & Dunbar 1997), humans developed mentalizing capacities – that is, the ability to infer mental states of others and to use that information to explain observed behavior (Frith & Frith 2003).

Assuming an unobservable underlying cause for others' behavior allows generalizing about how they will react to specific situations in the future – an obvious advantage over someone who lacks these capacities. Attributing goals, intentions, and motives to others (and actively seeking this information) thereby prevents a stressful state of uncertainty, and indirectly serves to satisfy "effectance motivation – the basic and chronic motivation to attain mastery of one's environment" (Waytz et al. 2010, p. 410).

Because of this evolutionary advantage, it is no surprise that humans possess what has in the past been described as a "hyperactive agency detection device" (Barrett 2000), an adaptive sensitivity for detecting human agency, which is so pronounced that it can produce a bias to perceive non-existent intentional agency in one's environment (Heider & Simmel 1944), a phenomenon Boyer (2001) refers to as a "hypertrophy of social cognition." Such a bias can exist only because mental states are not merely construed as the product of a configuration of uniquely human brain states, but as a property that can be ascribed to just about anything. According to previous theorizing, the tendency to conceptually distinguish minds from bodies is an almost logical by-product of our species' mentalizing skills. While others' behavior is visible and readily accessible, their mental states are not and must therefore be construed differently (Bloom 2004).

This differential construal, paired with the adaptive motivation to see agency in the world, can make people perceive human mental states in nonhuman, and sometimes bodiless, entities (Boyer 2001). According to anecdotal reports, even our closest evolutionary relatives, great apes, engage in social signaling (using dominance displays) with forces of nature, such as

thunderstorms or waterfalls, as if they were interacting with agents that have threatening intentions (Montgomery 1991).

For human beings, such a disembodied mind perception allows for beliefs in animism (e.g., a belief in a spirit inhabiting a river that can become angry and cause a flood), theism (e.g., a belief in a bodiless god that judges us), or in souls that can exist after bodily death (Bering 2006; Boyer 2001). Notably, such beliefs were not evolutionarily disadvantageous and still exist today, just as the underlying cognitive mechanisms responsible for them still exist. Only today, people also ascribe mental states to entire nations, groups of people (Waytz & Young 2012), or corporations (Rai & Diermeier 2015).

Likewise, people frequently use language that anthropomorphizes economy-related concepts ("the goal of capitalism is *X*," "*Y* hurts the economy," etc.), and some of the FEBs that B&P discuss, such as emporiophobia (the fear of markets; Rubin 2014), align with this notion. As B&P state, these abstract constructs have mechanisms that are in principle unobservable (Nozick 1994). Yet, in reality, people witness a constantly changing socio-economic environment, and they are eager to perceive these changes as being caused by a single responsible entity. Just as ascribing anger to a spirit inhabiting a river, this approach simplifies a complex system, allows prediction, and thereby satisfies effectance motivation.

When economic systems or the economy itself are understood in anthropomorphic terms, it is likely to affect how people react to the respective entity's apparent "behavior" (Chartrand et al. 2008). Just like apes facing a thunderstorm, people who anthropomorphize the economy are

suddenly confronted with a seemingly all-powerful and potentially malevolent entity that is responsible for the current state of the world around them. They perceive a willful agent that engages in semi-coherent, goal-directed behavior, rather than a set of individual structures and conditions spanning various social and economic domains, each with its own causes and consequences. Normally, each of these structures, when perceived as flawed, could be the individual target for modification or reconstruction (Connor 2016), whereas any attempt at change could be viewed as hopeless when these structures are construed as characteristics of a larger, more powerful, entity – as fingers of the invisible hand, so to say. Therefore, on the one hand, contrary to the assumed purpose of anthropomorphization, perceiving a powerful entity that follows its own agenda may, under some circumstances, paradoxically induce a perceived *lack* of control, and ultimately foster learned helplessness and obedience (see Prilleltensky & Gonick 1996). On the other hand, when anthropomorphizing abstract entities such as corporations, people typically ascribe to them agentic but no experiential mental states, considering them capable of being responsible for their actions, but not of being victims. Viewing the economy or the market as a moral agent allows people to perceive themselves as moral patients (or suffering victims), and to blame and direct moral outrage at this entity (Gray et al. 2012). Moral anger, as opposed to other negative emotions such as sadness, can in turn function as a catalyst for political or social action (Valentino et al. 2011). Future research may thus investigate under which conditions an anthropomorphization of economy-related constructs may have positive or negative motivational consequences for political action.

References

Barrett, J. L. (2000) Exploring the natural foundations of religion. *Trends in Cognitive Sciences* 4(1):29–34.

Barton, R.A. & Dunbar, R.L.M. (1997) Evolution of the social brain. In: *Machiavellian intelligence, vol. II*, ed. A. Whiten & R. Byrne, pp. 240–63. Cambridge University Press.

Bering, J. (2006) The folk psychology of souls. *Behavioral and Brain Sciences* 29:1–46.

Bloom, P. (2004) *Descartes' baby: How the science of child development explains what makes us human*. Basic Books.

Boyer, P. (2001) *Religion explained: The evolutionary origin of religious thought.* Basic Books.

Chartrand, T. L., Fitzsimons, G. M. & Fitzsimons, G. J. (2008) Automatic effects of anthropomorphized objects on behavior. *Social Cognition* 26(2):198–209.

Connor, S. (2016) Decomposing the Humanities. *New Literary History* 47(2):275–88.

Forstmann, M. & Burgmer, P. (2015) Adults are intuitive mind-body dualists. *Journal of Experimental Psychology: General* 144(1):222–35.

Forstmann, M. & Burgmer, P. (2017) Antecedents, manifestations, and consequences of belief in mind–body dualism. In: *The science of lay theories: How beliefs shape our cognition, behavior, and health*, ed. C. M. Zedelius, B. C. N. Müller & J. W. Schooler, pp. 181–205. Springer.

Frith, U. & Frith, C. D. (2003) Development and neurophysiology of mentalizing. *Philosophical Transactions of the Royal Society B: Biological Sciences* 358(1431):459–73.

Gray, K., Young, L. & Waytz, A. (2012) Mind perception is the essence of morality. *Psychological Inquiry* 23(2):101–24.

Heider, F. & Simmel, M. (1944) An experimental study of apparent behavior. *The American Journal of Psychology* 57(2):243–59.

Montgomery, S. (1991) *Walking with the great apes: Jane Goodall, Dian Fossey, and Birutè Galdikas*. SUNY Press.

Nozick, R. (1994) Invisible-hand explanations. *The American Economic Review* 84(2):314–18.

Prilleltensky, I. & Gonick, L. (1996) Polities change, oppression remains: On the psychology and politics of oppression. *Political Psychology* 17(1):127–48.

Rai, T. S. & Diermeier, D. (2015) Corporations are cyborgs: Organizations elicit anger but not sympathy when they can think but cannot feel. *Organizational Behavior and Human Decision Processes* 126:18–26.

Rubin, P. H. (2014) Emporiophobia (fear of markets): Cooperation or competition? *Southern Economic Journal* 80(4):875–89.

Valentino, N. A., Brader, T., Groenendyk, E. W., Gregorowicz, K. & Hutchings, V. L. (2011) Election night's alright for fighting: The role of emotions in political participation. *The Journal of Politics* 73(1):156–70.

Waytz, A., Morewedge, C. K., Epley, N., Monteleone, G., Gao, J. H. & Cacioppo, J. T. (2010) Making sense by making sentient: Effectance motivation increases anthropomorphism. *Journal of Personality and Social Psychology* 99(3):410–35.

Waytz, A. & Young, L. (2012) The group-member mind trade-off: Attributing mind to groups versus group members. *Psychological Science* 23(1):77–85.