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## A theory of how evolved psychology underpins attitudes towards societal economics must go beyond exchanges and averages

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**Abstract:** We applaud Boyer & Petersen for the advancement of an ultimate explanation of the dynamics of folk-economic beliefs and the political actions linked to them. To our mind, however, key inference systems regulating societal interaction and resource distribution evolved for more core relations than those of proportionate exchange, and situational factors are not the only constraints on how such systems produce economic beliefs

The target article by Boyer & Petersen (B&P) marks the maturing of a subfield applying evolutionary psychology principles to the study of economic and political behavior and attitudes, focusing on how they are underpinned by evolved, core concepts and motives for social relations (see also Sheehy-Skeffington 2016; Sidanius & Kurzban 2013; Sidanius & Pratto 1999; Thomsen & Carey 2013). Identifying the basic vocabulary or evolved set of relational primitives that govern intuitions about resource distribution is crucial for any such mature theory of folk economics.

Problems arising from opportunities for social exchange – where something is given in proportionate exchange for something received (cf. Fiske 1992) – are central drivers of the evolution of inference systems for social relations. Even infants perform basic proportionate utility calculations, understanding that the value of a material or social resource reflects the effort spent to acquire it (Liu et al. 2017), and both young Western and Turkana children take merit into account when sharing resources (for review, see Blake et al. 2014). This supports B&P's proposal that evolved intuitions regarding proportionate exchange also underpin folk-economic beliefs. However, in several cases proportionate exchange likely does not exclusively or primarily drive intuitions about resource distributions.

Acknowledging this, the authors discuss Fiske's (1992) notion of *communal sharing* (sects. 4.1, 4.4), arguing that communal attitudes towards welfare include more exchange-relevant considerations of deservingness than assumed by those who claim that unconditional altruism operates at the group level. However, non-exchange-related representations influence folk-economic beliefs, and not only through their impact on mechanisms evolved to coordinate social exchange. The core of communal sharing, as prototypically implemented among close kin, involves expectations of altruistic sharing according to need and contributions according to ability, along with perceptions of being *one and the same*, so that common resources are

precisely represented as belonging to everybody in the communal unit. Such core communal representations may drive economic beliefs directly in their own right, for instance concerning inheritance tax, where contradictory folk-economic attitudes might reflect tensions between perceiving the nuclear family as a communal unit (in which the wealth of parents legitimately belongs to their children), and exchange-related expectations that each citizen work for his or her own wealth.

Representations and motives for social dominance – a cross-cultural universal that guides behaviour across species, including our nearest primate ancestors (e.g. Brown 1991; Cummins 2005; Sapolsky 2004; 2017) – form another, evolved system that fundamentally regulates the distribution of scarce resources in zero-sum conflicts according to dove—hawk dynamics of relative formidability. Of course, the idea that dynamics of dominance and counter-dominance relate to economics is hardly new (cf. Marx & Engels 1867/1990). However, we now know that even preverbal infants use cues of formidability – body size (Thomsen et al. 2011), coalition size (Pun et al. 2016), and previous win—lose history (Mascaro & Csibra 2012; 2014) to predict who will dominate in conflict, and that they represent dominance hierarchies as transitive (Gazes et al. 2017). Indeed, whereas infants generally expect equal resource distributions between third-parties (cf. Blake et al. 2014), they expect dominant and subordinate agents to receive unequal resources reflecting their rank (Enright et al. 2017). Inferences of formidability-based dominance also drive attitudes towards societal income redistribution among adults (Petersen et al. 2013).

Aside from limiting their account of folk-economic beliefs to a subset of the social relations that regulate resources, B&P focus on articulating the way everyone's attitudes (e.g., concerning welfare support) are affected, on average, by situational changes in evolutionarily relevant information (e.g., potential free-riding). Enduring ideological preferences, which might shape how any one individual responds to a situational cue differently to how another would, are treated as the product of cultural factors, which provide a background "noise" through which the workings of evolutionary dynamics can nevertheless be discerned (sect. 5.3). Yet stable individual differences, in notions of how people should relate to each other and who should get what, are critical to understanding the interaction between evolved cognition, macro-structural economical context, and economic and political beliefs.

The socio-political construct of egalitarianism provides a case in point. B&P argue that "although the notion that people generally prefer equal to unequal distributions of resources (...) has been popular, recent research suggests people are much more concerned with a fair distribution" (sect. 5.3, para. 6), in which proportionate contribution and effort matter. But in fact individuals vary systematically in whether resource inequality is seen as fair or unfair (Jost et al. 2009; Kandler et al. 2012; Pratto et al. 1994; Ho et al. 2012; 2015; Sidanius & Pratto 1999). This, in turn, has pervasive consequences for the kinds of actions and policies people support and engage in order to bring about a societal distribution of resources that matches their relational preferences, including social welfare, taxation, affirmative action, discrimination, criminal justice, and immigration (Green et al. 2009; Ho et al. 2012; 2015; Kteily et al. 2014; 2017; Sidanius et al. 2016; Thomsen et al. 2008; 2010). Intriguingly, individual differences linking whether people will personally share resources with others and their attention to unequal resource distributions among third parties manifest together already in infancy (Ziv & Sommerville 2016), supporting our proposal of an evolved, motivational system for equality.

Seen through an evolutionary psychology lens, individual traits such as egalitarianism are likely facultative adaptations (see Tooby & Cosmides 1990), the product of the interaction between considerations of genetics and embodied capital (e.g., physical strength), current social standing (personal or group), and exchange- and dominance-related structural dynamics (e.g., economic inequality) (see Sidanius & Pratto 1999). For example, individual dominance motives mediate the effect of macro-structural economic inequality (i.e., the Gini coefficient) on individual support for phenomena such as social welfare, racism, and the persecution of outgroups (Kunst et al. 2017); and individual dominance motives further moderate the coalitional aggression provoked by perceptions that immigrants take our resources (Thomsen et al. 2008). An ambitious framework that (1) considers a full set of evolved, early-developing relational primitives regulating the distribution of resources, and (2) theoretically embraces systematic variation across both individuals and context, can reveal how evolutionary dynamics play out in economics and politics, across societies and over time.

## References

- Blake, P. R., McAuliffe, K. & Warneken, F. (2014) The developmental roots of fairness: The knowledge-behavior gap. *Trends in Cognitive Sciences* 18(11):559–61. [JS-S]
- Brown, D. (1991) Human universals. McGraw Hill. [JS-S]
- Cummins, D. (2005) Dominance, status, and social hierarchies. In: *Handbook of Evolutionary Psychology*, ed. D. Buss, pp. 676–97. Wiley. [JS-S]
- Enright, E. A., Gweon, H. & Sommerville, J. A. (2017) To the victor goes the spoils: Infants expect resources to align with dominance structures. *Cognition* 164:8–21. [JS-S]
- Fiske, A. P. (1992) The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review* 99(4):689. [JS-S]
- Gazes, R. P., Hampton, R. R. & Lourenco, S. F. (2017) Transitive inference of social dominance by human infants. *Developmental Science* 20(2). [JS-S]
- Green, E., Thomsen, L. & Sidanius, J., Staerkle, C. & Potanina, P. (2009) Reactions to crime as a hierarchy-regulating strategy: The moderating role of social dominance orientation. *Social Justice Research* 22:416–36. [JS-S]
- Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K., Foels, R. & Stewart, A. (2015) The nature of social dominance orientation: Theorizing and measuring preferences for intergroup inequality. *Journal of Personality and Social Psychology* 109(6):1003–28. [JS-S]
- Ho, A. K., Sidanius, J., Pratto, F., Levin, S., Thomsen, L., Kteily, N. & Sheehy-Skeffington, J. (2012) Social dominance orientation: Revisiting the structure and function of a variable predicting social and political attitudes. *Personality and Social Psychology Bulletin* 38(5):583–606. [JS-S]
- Jost, J. T., Federico, C. M. & Napier, J. L. (2009) Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology* 60:307–37. [JS-S]
- Kandler, C., Bleidorn, W. & Riemann, R. (2012) Left or right? Sources of political orientation: The roles of genetic factors, cultural transmission, assortative mating, and personality. *Journal of Personality and Social Psychology* 102(3):633–45. [JS-S]

- Kteily, N. S., Cotterill, S., Sidanius, J., Sheehy-Skeffington, J. & Bergh, R. (2014) "Not one of us" predictors and consequences of denying ingroup characteristics to ambiguous targets. *Personality and Social Psychology Bulletin* 40(10):1231–47. [JS-S]
- Kteily, N. S., Sheehy-Skeffington, J. & Ho, A. K. (2017) Hierarchy in the eye of the beholder: (Anti-)egalitarianism shapes perceived levels of social inequality. *Journal of Personality and Social Psychology* 112(1):136. [JS-S]
- Kunst, J. R., Fischer, R., Sidanius, J. & Thomsen, L. (2017) Preferences for group dominance track and mediate the effects of macro-level social inequality and violence across societies. *Proceedings of the National Academy of Sciences USA* 114(21):5407–12. [JS-S]
- Liu, S., Ullman, T. D., Tenenbaum, J. B. & Spelke, E.S. (2017) Ten-month-old infants infer the value of goals from the costs of actions. *Science* 24:1038–41. [JS-S]
- Marx, K. & Engels, F. (1867/1990) *Capital: A critique of political economy*. Penguin Books. (Original work published in 1867). [JS-S]
- Mascaro, O. & Csibra, G. (2012) Representation of stable social dominance relations by human infants. *Proceedings of the National Academy of Sciences USA* 109(18):6862–67. [JS-S]
- Mascaro, O. & Csibra, G. (2014) Human infants' learning of social structures: The case of dominance hierarchy. *Psychological Science* 25(1):250–55. [JS-S]
- Petersen, M. B., Sznycer, D., Sell, A., Cosmides, L. & Tooby, J. (2013) The ancestral logic of politics: Upper-body strength regulates men's assertion of self-interest over economic redistribution. *Psychological Science* 24(7):1098–103. [JS-S]
- Pratto, F., Sidanius, J., Stallworth, L. M. & Malle, B. F. (1994) Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology* 67(4):741–63. [JS-S]
- Pun, A., Birch, S. & Baron, A. S. (2016) Infants use numerical groups size to infer social dominance. *Proceedings of the National Academy of Sciences USA* 113:2376–81. [JS-S]
- Sapolsky, R. M. (2004) Social status and health in humans and other animals. *Annual Review of Anthropology* 33:393–418. [JS-S]
- Sapolsky, R. M. (2017) *Behave: The biology of humans at our best and worst.* The Bodley Head. [JS-S]
- Sheehy-Skeffington, J. (2016) Human nature in society. *British Academy Review* 28 (Summer 2016), pp. 46-49. [JS-S]
- Sidanius, J., Cotterill, S., Sheehy-Skeffington, J., Kteily, N. & Carvacho, H. (2016) Social dominance theory: Explorations in the psychology of oppression. In: *Cambridge handbook of the psychology of prejudice*, ed. C. G. Sibley & F. K. Barlow, pp. 149–87. Cambridge University Press. [JS-S]
- Sidanius, J. & Kurzban, R. (2013) Toward an evolutionarily informed political psychology. In: *The Oxford handbook of political psychology*, 2nd edition, ed. L. Huddy, D. O. Sears, & J. S. Levy, Part I, Ch. 7, pp. 205–236. Oxford University Press. [JS-S]
- Sidanius, J. & Pratto, F. (1999) *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge University Press. [JS-S]
- Thomsen, L. & Carey, S. (2013) Core cognition of social relations. In: *Navigating the social world: What infants, children, and other species can teach us*, ed. M. Banajii & S. Gelman, pp. 17–22. Oxford University Press. [JS-S]

- Thomsen, L., Frankenhuis, W. E., Ingold-Smith, M. & Carey. S. (2011) Big and mighty: Preverbal infants mentally represent social dominance. *Science* 331(6016):477–80. [JS-S]
- Thomsen, L., Green, E. G., Ho, A. K., Levin, S., van Laar, C., Sinclair, S. & Sidanius, J. (2010) Wolves in sheep's clothing: SDO asymmetrically predicts perceived ethnic victimization among white and Latino students across three years. *Personality and Social Psychology Bulletin* 36(2):225–38. [JS-S]
- Thomsen, L., Green, E. G. & Sidanius, J. (2008) We will hunt them down: How social dominance orientation and right-wing authoritarianism fuel ethnic persecution of immigrants in fundamentally different ways. *Journal of Experimental Social Psychology* 44(6):1455–64. [JS-S]
- Tooby, J. & Cosmides, L. (1990) On the universality of human nature and the uniqueness of the individual: The role of genetics and adaptation. *Journal of Personality* 58(1):17–67. [JS-S]
- Ziv, T. & Sommerville, J. (2016) Developmental differences in infants' fairness expectations from 6 to 15 months of age. *Child Development* 88:1930–51. [JS-S]