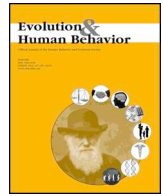




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Commentary

Greater humility can help expand evolutionary social science[☆]

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Now is an ideal time to consider possible futures for evolutionary social sciences (ESS): it's almost a half century after E.O. Wilson's *Sociobiology* first made its splash, and a decade after the problem of WEIRD bias in the behavioral sciences was clearly voiced. Barrett (2020) advises us to slow down, remove our theoretical blinders and to advance with “informed curiosity”. Doing so, he argues, could help expand the breadth of topics and populations studied by ESS. Maybe theoretical blinders and a narrow scope of topics where the “light is better” were helpful in building up ESS in the early years. But doing better now requires more meaningful connections and collaborations across the social and life sciences. I argue here that only if we can appreciate a wider domain of questions as worthy of explanation will any attempt at building a “phenome” of human experience be deemed interesting and worthwhile.

ESS depends on applying evolutionary theory to diverse social, behavioral, psychological and cultural phenomena. Central is the belief that the theory provides novel insight. As the mathematical demographer Nathan Keyfitz (1975) advised, “No theory, no understanding”. And it surely does provide insight and understanding, but at what cost? ESS needs theory, just as it needs a plurality of methods, diverse samples, and most importantly—a rich well-specified bundle of observations to explain. The wide umbrella of ESS may cover a lot of territory – but we can argue about whether we have enough of this or too much of that. Should the “modal” research project be “lab-oriented and experiment-based”? Who and where should we be sampling? How many formal modelers are needed per 100 empiricists? If the number of ESS practitioners were to triple, then perhaps we'd have less of a problem.

Regarding the proper role of theory in ESS, the pejorative label ‘physics envy’ suggests over-quantification and obsession with precise theory-drawn predictions. Quite simply, good formal models and theory help reveal the skeleton of how the world (might) work. They may not be so good as off-the-shelf tools for navigating the messiness of the human phenome that Barrett emphasizes. This messiness is the raw material of behaviors, thoughts, feelings, norms, meanings, identities—including many anomalies and “sins of omission” (Akerlof, 2020) that don't quite fit. Such messiness and particularism are the domain of much of the social sciences and history. Improving ESS requires appreciation and attention to the types of bottom-up (observation-based)

questions common in the social sciences that a top-down (theory-based) approach in ESS tends to ignore. For example, do children learn better in small or large classes? How did U.S. support for same-sex marriage increase from 31% to 61% over a short 15-year period? How do N95 masks, practical PPE for limiting infectious spread, suddenly become viewed as cultural expressions of freedom, civic responsibility, and social control? Why have some religions flourished and others dissolved? Under what conditions does population heterogeneity promote innovation and cultural renaissance versus distrust, conflict and economic harm? How do paternity leave policies in different countries affect the sexual division of labor in households? I believe that some humility is required on our part not just to acknowledge that these types of “descriptive” questions are important, but that they are fundamentally interesting and worthy of study. These types of bottom-up questions are outside the usual reach of “modal” top-down ESS. Answers can perhaps be reconciled with evolutionary perspectives, but that's not the same as having ESS contribute directly. Being relevant is not as good as being necessary.

For ESS to be more central in the social sciences requires that we first acknowledge the accomplishments of other disciplines, and then have something concrete to add. The most exciting directions in ESS right now are not near the modal way of doing things – but in the tentacle-like tails slithering over into other disciplines and into many journals other than *EHB*. For example, nascent subfields like cultural economics and sociocological psychology have picked up the torch initially ignited by ESS decades ago (e.g. Nunn, 2020; Oishi, 2014). These fields are attempting to explain many conundrums of the human phenome.

While identifying adaptations is a central goal of much ESS research, how those express under different conditions, contexts and places is equally important. Much comparative work in ESS is still slanted toward testing for universality, rather than understanding the roots of variation and cultural plasticity. The quest to understand the patterning of on-the-ground daily life once again brings us back to the need to pay closer attention to the human phenome. Aspects of the phenome have been captured in many surveys across the social sciences, large databases like the Human Relation Area Files (HRAF), Ethnographic Atlas, Demographic and Health Surveys, World Values

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Surveys, and the many Big Data waves crashing all around us, as digital footprints of billions of people are increasingly being assembled (Bidargaddi et al., 2017; Lazer et al., 2009).

Scavenging field records of social scientists can provide additional opportunities for learning about the diverse human phenome, especially over the past 50 years (Kraft, Venkataraman, Endicott, & Endicott, 2020). Such information can be useful for understanding which aspects of the phenome change rapidly and which are fairly resilient, as populations experience varying degrees of socioeconomic, political and cultural change. The Hadza should not be viewed as no longer worthy of study if they grow crops, invite tourists, interact with pastoralist neighbors (Gibbons, 2018), but instead lifestyle and environmental change provide a nice opportunity to explore adaptive decision-making under contemporary conditions. Concepts like phenotypic plasticity, reaction norms, and mismatch may be relevant, but need not be blinders for studying the current situation of many indigenous populations – who too often appear in ESS only to represent the Environment of Evolutionary Adaptedness (EEA), non-WEIRD, or generic small-scale society. The most boring use of these samples is a simple contrast with Americans or Western Europeans. Longitudinal studies of these populations, using ethnography to complement traditional psychological experiments, will be vital to improve understanding of the psychological determinants of behavioral change (Gurven, 2018). Expanding the breadth of topics studied in indigenous and other non-WEIRD populations – e.g. consumer choice, identity, norm changes – will also help guard against critiques of a colonial research mindset.

A pluralistic approach from multiple social sciences working in teams can greatly increase the scope and breadth of topics studied, and at multiple levels – from beliefs, attitudes, behaviors, norms—addressing universals, variation, and changes over time. One example serves to illustrate the potential. Hunter-gatherers experience frequent sickness or injury, and so rely on cooperation via reputation and social networks to buffer against risks (Gurven, Allen-Arave, Hill, & Hurtado, 2000; Sugiyama, 2004). Even high producers need social insurance because disability affects all. Sickness is often viewed as being beyond one's control, and therefore deserving of widespread support. On the other hand, production shortfalls in the past, and unemployment in the present, may be due to laziness, bad choices, or bad luck. From this more top-down approach based on logic and ethnographic study, a deservingness heuristic was proposed to guide the psychology of beliefs and attitudes about the poor, and especially the need for health care (Jensen & Petersen, 2017). While universal health care is widely supported across high income countries, attitudes about government subsidies for unemployment vary widely across countries. Yet institutions centered around health insurance coverage vary widely across countries. And these have changed over time. Why? Pre-existing advantages like wealth do not explain one's attitudes toward taxes and redistribution nearly as much as beliefs about whether luck or effort is the more

important determinant of fortune and misfortune (Fong, 2001). Where do these beliefs come from? Why are views about unemployment so much more variable? Addressing these questions will point toward aspects of the phenome needing direct study. It bridges the evolutionary framework, psychological mechanisms, behavioral manifestation, institutional design, role of context and history – drawing in perspectives from anthropology, psychology, economics and political science.

While division of labor among the social sciences has its advantages, greater consilience oriented around common questions from diverse perspectives would improve ESS. For better grounding, all ESS could benefit from greater experience with the phenome beyond the familiar: e.g. fieldwork (from jungle to city) and broad reading (e.g. not just classic and contemporary ethnographies, but in history, cultural studies, memoirs, etc.). Skeptics might respond that trying to understand historical trajectories, population variability, and individual differences is outside the scope of evolutionary analysis or is too distant from efforts to reveal the general architecture of human nature. To be relevant to important issues in the 21st century, a mature ESS cannot ignore these basic observations.

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