Editorial

A Legacy of Interdisciplinary, Biosocial Science with More Work to Be Done

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Thirty years ago, Jane B. Lancaster (1990) penned her inaugural editorial, “An Interdisciplinary, Biosocial Perspective on Human Nature.” With this, she launched an innovative journal that was instrumental to the nascent years of a maturing discipline. She outlined numerous urgent social issues of the time, all still topical, including climate change, social inequity and feminization of poverty, global hunger, and nuclear war. Any possibility of enacting solutions, she contended, requires an understanding of the very substance of our species. After all, famine appears irresolvable through agricultural innovation alone, and the threat of nuclear war is more than a technological issue. These socio-cultural, -political, and -ecological quandaries must be approached with an unblinkered view of our nature, as collectively expressed in human behavior. Since its inception, *Human Nature* has become the vehicle that Jane envisioned, and in her retirement, she has left a gift to our field—an enduring beacon devoted to human diversity in its myriad forms. (See Hitchcock 2020 for an invited contribution on her pioneering work in evolutionary anthropology.) I am grateful for the opportunity to carry on this proud tradition while expanding our scope to align with current directions in the discipline.

My vision for *Human Nature* remains concordant with the journal’s distinct identity and specialization in human evolutionary ecology, while branching further into three areas of immediate consequence: (1) increased cross-cultural representation, with special attention to smaller scale and subsistence populations; (2) adaptive perspectives on population health; and (3) nonhuman primate research with comparative implications for human behavior. I believe that triangulating along these emphases will cultivate a broader readership while retaining the interest of our dedicated readers.

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Cross-Cultural Representation in Evolutionary Social Sciences

In 2010, Henrich, Heine, and Norenzayan advanced an argument regarding a long-standing criticism of the social sciences—stark overreliance on “WEIRD” population samples (Westernized, Educated, Industrialized, Rich, and Democratic). They quoted a striking statistic from a survey of leading psychology journals: 96% of social and behavioral research is conducted on WEIRD populations that constitute only 12% of the world population. They argued that this sampling bias perpetuates flawed assumptions for a wide variety of purported human universals, including economic behavior, moral reasoning, spatial cognition, and IQ heritability. The authors appealed for more inclusive study to contextualize our inferences of human variation. While compelling and well received, nearly a decade has passed with little change since Henrich and colleagues’ (2010b) initial plea. Proportions of study samples drawn from WEIRD societies remain largely unchanged.

As a conceptual model, WEIRD is measured in broad strokes (critiqued in Clancy and Davis 2019), but this does not belie its explanatory utility. Acknowledging heterogeneity among and between WEIRD societies does not change that WEIRD, or subsets thereof, cluster as outliers in observed ranges of global variation for many of the most meaningful life history characteristics (e.g., birth weight, growth trajectories, and adult stature; age of sexual maturation; first reproduction; parity; patterning in and sources of morbidity and mortality across the life course). Yet along with criticism of the WEIRD concept, further umbrage is reserved for its emphasis on comparative work with smaller scale and subsistence societies (Clancy and Davis 2019). However, if we compare WEIRD groups with traditional and smaller scale populations, we both expect and observe distinct lifeways from populations with attenuated physical activity and energetic stress, and greater access to modern medicine and public sanitation. To illustrate, where I have had opportunities to work collaboratively with life history data collected from Hadza foragers (Alvarado et al. 2019; data collection by Martin Muller), key elements of life history remain vastly different from any subdivisions of WEIRD demographic. In a sample of Hadza men, descriptive statistics would include a sample mean of 158.3 cm height, 48.6 kg weight, 19.3 BMI, and 9.9% body fat—no formal education, and little access to medical care. All except one father in the sample had experienced the death of a child, with an average of nearly two deceased children per parent. This sample, while small, is not unlike larger samples of Hadza foragers (e.g., Marlowe 2010) or even data reported for other foraging peoples (e.g., Panter-Brick et al. 2001) when contrasted with WEIRD societies. Such contrasts do not imply equity in wealth, health, or education among WEIRD groupings, nor do they deny that some groups are “WEIRDer” than others. But even with rampant wealth disparity among the WEIRD, does poverty in, say, either the US or UK truly resemble poverty in the Congo? Voter suppression, too, is widespread with entrenched structural barriers in the US, but does any aspect of American democracy really resemble that of China more so than other WEIRD nations? We cannot lose sight of the forest by discounting why the model was first developed, an unabating dearth of representation within the social science literature.

For researchers working to understand the adaptive function of life history strategies under socioecological conditions that predominated throughout human evolutionary time (e.g., natural fertility, intensified microbial exposure, and nutritional constraint), it

is instructive to contemplate lifestyles of peoples with less market integration, without controlled fertility, lacking public sanitation or regular medical access, and who are less sedentary (e.g., Chagnon 1983; Ellison 2001; Hill and Hurtado 1996; Howell 1979; Kaplan et al. 2000; Marlowe 2010). In his landmark ethnography of Hadza hunter-gatherers, Frank Marlowe (2010) details why “living fossil” portrayals of contemporary foragers as frozen in time and isolated from the outside world are misguided. He also notes the importance of examining adaptive behavior in more naturalistic environments: “The Hadza have clearly had considerable contact with agricultural tribes for some time, yet it has not changed their daily lives in such a way that undercuts their relevance for thinking about the past. . . . Societies that continue to hunt and gather with bows and arrows resemble the societies our ancestors lived in more than industrialized societies do—that is an inescapable fact. It makes them interesting; it makes them valuable for evolutionary research; it does not make them any less respectable” (2010:12). Complementary insights of life history features and population health come from transitioning groups who are experiencing shifts away from traditional lifestyles, subsistence, and cultural practices (e.g., Crittenden et al. 2017; Gurven et al. 2017; Henrich et al. 2010a; Liebert et al. 2013; Urlacher et al. 2016; Veile and Kramer 2015)—in some cases, permitting tests of evolutionary hypotheses with more specificity than otherwise possible from observations of hunter-gatherers, or even comparative data of Westerners and subsistence groups (e.g., Alvarado et al. 2015, 2019; Gibson and Mace 2006; Jasienska et al. 2006; Mattison and Sear 2016; Valeggia and Ellison 2009; Walker et al. 2006).

Human Nature is a trailblazer in disseminating cross-cultural research in a way that expands views of human variation while elucidating the functional significance of human biological and behavioral diversity. In welcoming study of all human variation, we are particularly vested in learning more from life histories, sociality, and behavior of the most underrepresented, subsistence, and transitional populations steadily evaporate, a concerted effort to document these unique lifeways is in order. I propose a regular installment of special issues that, distinct from our special issues organized as topical contributions, would instead highlight responsibly conducted fieldwork from an array of anthropological sites. This series will remain ongoing as part of our fundamental commitment toward cross-cultural representation in biosocial perspective. Each of these special issues will be devoted to a research program from an individual field site in which contributed manuscripts would together offer a comprehensive treatment of the behavioral, biological, and demographic corollaries of population history and socioecology. I will begin accepting proposals for the special issue series with hopes that such an enterprise accrues substantive dividends in the literature and toward our discipline.

Adaptive Perspectives on Population Health

Another fascinating example of the consequences for oversampling WEIRD groups, this time with health implications, comes from an influential study of cardiovascular physiology and health by Hillard Kaplan et al. (2017). Cardiovascular disease (CVD) is the leading source of human mortality, with epidemiological investigations implicating

systemic inflammation as an associative, or possibly causative, risk factor. Recent data collected from Tsimane forager-horticulturalists, however, have complicated this interpretation (Kaplan et al. 2017). Remote Tsimane communities who inhabit Bolivian Amazonia have little access to modern medicine or public sanitation and are subject to chronic exposure to infectious disease, exhibiting inflammation to an extent that is unprecedented among Westernized populations. Despite this, Tsimane have slowed cardiovascular aging so the overwhelming majority show little appreciable hardening of the arteries. Moreover, Kaplan et al. report that average “vascular age” of an 80-year-old Tsimane is comparable to an American in their mid-fifties. The authors posit that CVD and its association with inflammation may represent a mismatch from naturalistic conditions and traditional lifestyles to which cardiac physiology would be adapted, conditions more akin to that of the Tsimane in contrast to lifestyle sequelae of modernization. These surprising results underscore the necessity for a conceptual grasp of evolutionary processes and human variation to understand clinical manifestations of CVD and human health more broadly.

Interdisciplinary research at the intersections of evolutionary biology, human variation, and health has attracted considerable attention (e.g., Blackwell et al. 2015; Jasienska et al. 2017; Kaplan et al. 2017), and I believe that *Human Nature* is situated to become a prime venue for this innovative research. We would be distinct from other journals that focus on publishing health-related research within these areas. Some venues primarily feature biocultural research, which can be nebulous in terms of organizing theory and not necessarily subsumed under an evolutionary framework (Wiley and Cullin 2016). Others emphasize evolutionary medicine, employing an explicitly evolutionary perspective, but one that is oriented toward clinical science. *Human Nature*’s niche specialization in human behavioral ecology and biosocial science in evolutionary perspective, along with our thematic foci on biodemography, phenotypic plasticity, and human diversity, provides a robust theoretical framework to examine population dynamics that underlie health transition. We welcome submissions covering these and related topics, which have historically fallen under the purview of field anthropologists, who represent a key constituency of our readers and contributing authors. In the coming years, my hope is to foster a critical mass of submissions to bolster *Human Nature*’s visibility as a viable venue with an engaged readership for this burgeoning field.

Comparative Primate Models

Evolutionary anthropology and psychology have extensive histories of drawing comparisons with our closest living relatives to delineate both continuities and divergences with humans. Rigorous application of the comparative method has proven invaluable in elucidating distinctly human characteristics as well as deeper, shared structures—traits such as aging and menopause (Alberts et al. 2013; Emery Thompson et al. 2007); attraction, mate choice, and sexual behavior (Dixson 2009; Hrdy 1981; Muller et al. 2006); cognition, culture, and communication (Dunbar 1998; Lancaster 1975); kinship, parental investment, and cooperation (Chapais 2008; Hrdy 2009; Silk et al. 2005; Tomasello and Gonzalez-Cabrera 2017); male aggression and sexual coercion (Hrdy 1997; Muller and Wrangham 2009; Wrangham and Peterson 1996); chimpanzees as a

comparative model for our last common ancestor with *Pan* (Muller et al. 2017). This nonexhaustive sample nevertheless exemplifies a demonstrable influence of primate studies on the human social sciences. *Human Nature* remains an advocate of primate behavioral research. Indeed, our founding editor, Jane Lancaster, was among the first field primatologists, whose work with vervet monkeys was foundational to future studies of human and nonhuman primate behavior. (See Kelley and Sussman 2007 for a historical overview and academic lineages of field primatologists.) We have a strong presence of primatologists among our consulting editors, and although we actively publish primate research, we are underutilized by researchers in this domain. We hope to make further inroads and encourage submissions for primate research that has clear implications for human evolutionary ecology, behavior, and psychology.

In closing, my proposal, while extending our scope, is in keeping with *Human Nature*'s underpinnings of biosocial, interdisciplinary science. The agenda is fittingly broad, as investigations of human variation should be when contextualized across cultures and species and throughout evolutionary history. I am especially pleased to propose, as a component of the editorial agenda, a platform to pair theoretical contributions with practical applications for human health and well-being. Our editorial board retains the expertise of leading scholars within the outlined areas and is well-equipped to support these emphases. I am greatly appreciative of their efforts, experience, and erudition. My own involvement with *Human Nature* spans more than a decade when I began as an editorial assistant to Jane Lancaster. Given *Human Nature*'s legacy and impact, my work with the journal is a great source of personal pride and I am indebted to Jane for her mentorship. I am filled with excitement and optimism in contemplating the promise of all the meaningful work that remains to be done.

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