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Bio-ethnography, a view from philosophy

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Full frontal disclosure: I am not an anthropologist (by training). But my work is informed by historical research, ethnographic methods, and critical anthropology of science. And as someone who has –Developmental Systems Theory willing- taken on the inquiry of scientific research exploring gene-disease associations, I side with [Liz Roberts' want](#) for a “synthetic, symmetrical analysis that understands environment-body interactions as always relational and constructed phenomena”. This is no easy thing to achieve. My way into discussing her proposal is more philosophical than anthropological, and deals with what I identify as three core concerns of her bio-ethnographic approach: integration, symmetry, and interaction. I will try to show briefly why I think bio-ethnography is on the right (yet somewhat beaten) integrationist path, why it is at risk of collapsing causal parity with explanatory symmetry, and why it can and should steer clear of any form of interactionist consensus.

Roberts' description of the ELEMENT project places it as one that tends to situate “key mechanisms for health and disease inside individual bodies.” Also, ELEMENT has recently appropriated some tenets of epigenetic analysis in the examination of chemical interactions in specific environments and their effects on health. ELEMENT's recognition of a looping effect between organisms and environments hints at its being suitable for a “collaborative, methodological experiment” in which biological data gathered by ELEMENT's biomedical researchers might be *integrated* with ethnographic data “about the larger histories and life circumstances that shape health,” gathered by Roberts and her team. As I see it, the very attempt at developing a meaningful collaboration between both teams necessitates the adoption of a *symmetry* thesis whereby causal factors traditionally located either on the “biological” or the “cultural” end of the “bio-cultural synthesis” do not, in principle, contribute distinctively towards human development in terms of health or disease. Roberts' point is that we cannot genuinely distinguish whether one causal factor resides in the bio or the cultural side: “by maintaining culture as distinct from biology, bio-cultural synthesis remains asymmetrical”. This idea—or one very similar to it- is a central tenet of Developmental Systems Theory (DST), a critical and constructive project addressing genocentric accounts of biological development, and whose intellectual mission is a principled resistance of dichotomies such as

gene/environment, nature/nurture, and biology/culture. Because I take Roberts' project to be similarly motivated, I'd like to examine this further, and perhaps problematize it a bit.

First, it is useful to analyze Roberts' symmetry thesis in terms of causal parity and explanatory symmetry. Causal parity is an ontological claim that denies that some factors (such as genes or molecules) possess, in principle, "special directive, formative or informative power" (Oyama 2001, p. 178). Causal parity does not claim that all sources of causal influence play the same role; it does not imply that all causes are equally important, nor does it discard the possibility of distinguishing between different types of causes (such as genes or toxic metals). Given "the ELEMENT project support of a looping approach," and evidence of their use of epigenetic analytics, I am inclined to think that ELEMENT researchers and anthropologists probably both already agree to there being symmetry at this level, but agreement on causal parity does not produce "a complex conditioning entanglement [causal] model, which takes into account factors such as household gendered economies, geography and kinship" in shaping disease among ELEMENT participants.

Explanatory symmetry is an epistemological claim that denies the attribution of a privileged role in explanations to some causal factors (be they genes, toxic metals, or project participation) –in short, "the treating of some causes as more equal than others" (Oyama 2001, p. 178). The symmetry thesis, then, is not that we cannot assign causal importance to various parts of a biological system, but rather, that in assigning causal importance we should not forget that assignments are often heuristic and may or may not reflect the nature of the relevant causes. Citing Susan Oyama once again, "symmetry is neither a platitude about multiple influences nor a denial about useful distinctions, but a powerful way of exposing hidden assumptions and opening up traditional formulations to fruitful change (Oyama 2000). Bio-ethnography invites a particular kind of boundary work that should also not be confused with seeking to corroborate the truism that bodily states of health and disease are influenced by environmental factors both inside and outside the individual organism.

This is where I think the usefulness of the bio-ethnographic approach resides, as well as its integrationist flair. By putting biological samples in conversation with participants' life trajectories and environments, Roberts and collaborators will be telling us not what the *scramble* (c.f. Michael Montoya) really looks like, but how to bring the system back into view. Misunderstanding causal parity, and collapsing it with explanatory symmetry confuses these two tasks.

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See also:

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