

 [IP-Psychosocial Contexts and Reductionism by Anthony Marsella](#) by Louise S. [2013, Nov 03]

Comments welcome.

Anthony J. Marsella, Ph.D., Professor Emeritus, University of Hawaii, Honolulu, Hawaii 96822.

Show, by your actions, that you choose peace over war, freedom over oppression, voice over silence, service over self-interest, respect over advantage, courage over fear, cooperation over competition, action over passivity, diversity over uniformity, and justice over all.

Adapted from Bessie Anderson Stanley (1905): To laugh often and love much, To win the respect of intelligent people and the affection of children, To earn the appreciation of honest critics and endure the betrayal of false friends, To appreciate beauty, To find the best in others, To leave the world a bit better, whether by a healthy child, a garden path, or a redeemed social condition, To know even one life has breathed easier because you have lived. This is to have succeeded. [Monument inscription, Lincoln, Kansas. I found the quotation, as written, posted in a Quaker Meeting House. There are many versions -- the words differ, but the sentiment and wisdom are the same]

 [Psychosocial Contexts and Reductionism](#)

 [Comment by John Xuexin Zhang](#) by Louise S. [2013, Nov 02]

Dear Louis,

Thanks for sharing!

This piece of writing from Prof. Marsella is great! This word 'reductionism' attracted me as I did not expect it to appear this context of mental health. But my reading told me that the author used the right word and on the right target. Yes, the scientific circle is too much into the micro-levels. They emphasize too much of the p value, but ignore the effect size, which is much more meaningful. Macro-levels factors can just be many times more important.

I recently proposed a new argument I referred to as 'The echo argument'. It is a novel and strong argument against reductionism (I attach the abstract below). Basically I argue with it that science (in particular neuroscience) can never explain consciousness (qualia aspect of consciousness).

I would think that reductionism in mental health research would not succeed either. It is not that we cannot gain from studying neurons, genes, it is only that when we add up what we know about neurons, we would still be far away from real life behaviors. Macro-levels

behaviors need to be studied at their own level without necessarily going down.

best,

john

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The Echo Argument: Can Science Explain Consciousness?

John Xuexin Zhang

(Department of Psychology, Fudan University, Shanghai 200433)

Abstract: How can the brain, a collection of physical fundamental particles, give rise to phenomenal consciousness, or qualia that seem totally non-physical? A new argument is proposed identifying a logical difficulty in any scientific explanation of qualia. The present physics theories, though highly abstract and mathematically sophisticated, are built on a small set of fundamental concepts, e.g., mass, space, and time. Comprehension of these concepts requires previous conscious experience with some visual qualia, e.g., perception of size, location, and motion. Such qualia are core to these theories as they constitute the vocabulary to describe and explain all other non-core qualia, e.g., color explained as wavelength variation and sound as molecule vibration. There are more than one possibilities in the selection of the core qualia. For example, an imagined intelligent bat population, with good audition but poor vision, may well build a bat-physics using some of the sound qualia of their echo (e.g., pitch, loudness) as the core units. As different types of qualia are qualitatively distinct and incommensurable, it is circular to use a scientific construct composed of some qualia to explain other qualia. Self-evident and directly-given, qualia constitute our world and the foundation of any sciences.

Key words: Psychology; Consciousness; Qualia; Echo; Scientific description; Understanding; Vision

 [Comment by Louise S.](#) by Louise S. [2013, Nov 03]

Dear all,

I wish to thank Tony Marsella for bringing up an important topic, and John Zhang for taking this further

with his stimulating abstract, on which I would like to make a few comments.

Far reaching implications for cross cultural research can be derived from John's suggestion that bat-physics is contingent upon bat's perception which is fundamentally different from ours. Along this line, different cultures may be considered as different ecological niches constructed or picked out by different sensibilities honed by different cultures. This is a necessarily circular statement, since the causal relationship between an organism and its niche construction is bi-directional. Given the intimate connection between the culture-honed sensibility/perception and the ecological niche out of which these sensibilities are evolved for the population to be adaptive, the current focus on behavior and practice are no longer sufficient tools for cultural analysis. Without taking into consideration the match between cultural sensibility and the corresponding ecological niche, focus on behavior and practice alone can be misleading. A few examples shall suffice:

Heyes and Dawson (1992) studied imitation by placing two rats face to face in adjoining cages. One rat learned to push a joystick to the left to be rewarded with food, a direction which from the perspective of the other on-looking rat, the imitator, would be to the right. Later the imitator was placed in the first rat's cage. Which way would the imitator push the joystick, left or right? The imitator correctly pushed the joystick to the left, just like human imitators do. Can we draw the conclusion that rats and humans use the same perceptual strategy to compute the direction? It turned out that the rat imitator used a very different strategy--sniffing at the side of the joystick where it detected the scent of the first rat. Who, among us humans, would have thought of that? Commenting on this study, Goldstein et al. (2001) wrote: "The specialization of a perceptual system can keep classes of strategies out of the choice set . . . and favor the selection of strategies other organisms might not have at their disposal" (p. 185). Might not difference in sensibilities across cultures function in a similar way in the selection of cognitive strategies that may not overlap, even though the same practice might be observed?

Consider for another example the dots in the attached slide, taken from Gigerenzer, Fiedler, and Olsson (2012, p. 81, Figure 4-1). The concave and convex dots will turn into each other, if we turn the slide upside down. Casting this observation into the dictum of "one mind many mentalities" (Shweder et al., 1998, p. 716), might we not say that some mentalities are evolved to function in an ecological niche that is upside down from the ones familiar to Western psychology? If so, don't we sometimes need to turn our rationality, which is embodied in our measurements, upside down in order to measure properly the rationality of a different culture?

Thanks again for the stimulating postings.

Louise  [Dots](#)

 [Comment by Kiran Kumar Salagame](#) by Louise S. [2013, Nov 03]

Thanks Louise for the postings and your comments on them. Yes indeed your points make lot of sense. When I was a doctoral student in Clinical Psychology working on altered states of consciousness, such cultural differences in mentality were discussed in terms of intellect and intuitive mode of consciousness and similar arguments were made. I remember reading about how in certain cultures even in language structure there were no words for past and future and only present tense was used. If my memory serves

right it was among Trobriand Islanders studied by Dorothy Lee, a cultural anthropologist. At the individual level Jung was very clear in stating that we have different primary functions like sensation, intuition, etc. Such cultural differences both at individual and group level have been discussed in different contexts and it is high time we incorporate them in mainstream research in studying people across cultures.

Thanks once again

Kiran

 [Comment by Michael Bond](#) by Louise S. [2013, Nov 04]

 Louise,

I comment on 2 parts of your eloquent response: 1. “the selection of cognitive strategies that may not overlap, even though the same practice might be observed?” If the same practice is observed, but the cognitive strategies may not “overlap”, how was that practice produced or evinced? Perhaps one’s interest is not on practice and their difference, but rather on cognitive strategies and their overlap, in which case, one is simply documenting degrees of overlap, as shown by the measures involved, whatever their cultural origin.

2. “If so, don’t we sometimes need to turn our rationality, which is embodied in our measurements, upside down in order to measure properly the rationality of a different culture?” How are we going to measure “properly”, i.e., conclude that one culture’s rationality is “proper”, unless we have some behavioral outcome measure for assessing the rationality of our cognitive strategy? With an outcome in place, one can then compare the relative efficacy of the culturally different cognitive strategies.

to re-phrase Gibson, “Thinking is for doing”, and some thinking may be better than others. Probably it will be the locally evolved and fitting strategies, but I’d like to see such claims and presumptions tested rather than merely asserted. Otherwise, we just have assertions of difference or degrees of overlap that do not allow tests of the “so-what” question.

Random thoughts for a Sunday. Now, to go shopping!

Michael

 [Comment by Sayyed Mohsen Fatemi](#) by Louise S. [2013, Nov 04]

 Dear Louise,

Very brilliant observation!

Wonderful!

Your great note indicates how syntagmatic and paradigmatic analysis of cultural phenomena without the grammar of understanding would end up barking up the wrong tree.

Thank you.

Mohsen


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 [Comment by Joan Koss](#) by Louise S. [2013, Nov 04]

 Kiran: Yes, there is an anthropology of cognition! Malinowski first studied the Trobrianders and observed many cultural differences from other groups.

regards, Joan

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