

 [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 particularly 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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 [Comment by Anand Paranjpe](#) by Louise S. [2013, Nov 11]  
Dear Risa:

Influence of culture, like that of language, is deep. As we rely largely on English, the terms we use are naturally infused and loaded with layers and layers of meaning making over a couple of millennia of Western cultures. The word man has several connotations that inevitably come with its long history: from the Biblical belief of man being made by God in His image through Lock's view of the person as a "forensic" (legal/moral) to the Darwinian implication of man as product of evolution. The word Aadmi in Hindi conveys a different notion of man - as a descendent of Adam - and the Sanaskit word MAnava a yet different connotation as a descendant of the mythical Manu and so on and on.

In contemporary psychology, our colleagues in Cross-cultural Psychology want to be "scientific" and wish to have a UNIVERSAL science, an "etic" framework fashioned after the idea of phonetics, the science of sound, rather than exploring culturally shaped views of mind and personhood as cultural psychologists (e.g. Shweder et al.) do. The latter perspective highlights the varied shades of meanings and psychological functions and its theorization rather than glossing over the differences in the name of a UNIVERSAL science. In that contexts, "indigenous" psychologies resonate more with cultural rather than Cross-cultural psychology.

Speaking of vocabularies: yes, languages shape worldviews deeply. But that should not rule out MUTUAL understanding across languages and cultures. Translations may remain only approximate, but that is inevitable. As long as we do not presume universality and RESPECT distinctive cultural shaping of words, behaviors, and ways of understanding - called theories - we need not make too much of the limitations, focusing instead on the commonalities based on mutually COMPATIBLE beliefs and values.

I wonder if this makes sense to you.

--Anand

 [Comment by Risa Permanadeli](#) by Louise S. [2013, Nov 11]

Dear Anand,

It is always easier for us to understand the time and space in Western conception rather than our own since we have adopted those notions and incorporated to our academic thinking (even economic and political activities). It is clear that time and spaces work differently here in Asian society.

Time can be circular or cyclic, but the problem is how we elaborate that character to the production of knowledge about many subject that we learn in academic setting. Space can be material as it is named in Greek -Topos, but do we have the awareness that perhaps all the terms or the vocabularies we use in this setting come with different meanings for pointing the same object or subject? Then how we scratch and identify these meanings that mentally we built from our own experiences and use it without any necessity for borrowing the Western vocabularies that somehow misleading for understanding our indigenously?

Let's the discussion continue...

 [Comment by Louise S.](#) by Louise S. [2013, Nov 11]

Dear All,

The discussion on Psychosocial Contexts and Reductionism is taking on a new theme--the trajectory of knowledge, thanks to the recent posts of Risa Permanadeli and Kiran Kumar Salagame. Below is the discussion on this theme.

Enjoy,  
Louise

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From: Anand Paranjpe

Hello Risa and Kiran:

Thanks for starting an interesting dialogue. There is no single point to start. For me, having

been raised like Kiran in India, I share his views almost totally: the deep effect of a shared world view. Risa has raised the issue of time and space. Like Kiran I would like to say let me add my two paise (the smallest in Indian currency), but having been naturalized Canadian I have little trouble talking of cents in the same way.

#### ABOUT TIME;

The modern Western concept of time as a one-way trajectory from past to future was consolidated with the discoveries of historical development of layers of earth as in sedimentary rocks such that the UPPER layers represented LATER origin. What is important to recognize is that this “scientific” discovery confirmed the theme of EVOLUTION: metaphysically in Hegel, biologically in Darwin, and this convergence deepened the post-medieval CULTURAL them of unending PROGRESS. In psychological terms its counterpart is an emphasis on Becoming over Being; change over stasis, self-actualization as a matter of continued progress in human life – a theme initiated by Aristotle and revived by Malsow. A deeper implication of this is a world-wide prevalence of the notion that we must keep getting more and more of everything, for having more money, comforts and luxury is not only good in itself, but also a matter of expectation. As an individual I must have a growing pay-check, profits, and every increasing net worth even as every nation must keep having a greater GPA. Against this background, the ideal of desirelessness promoted by Buddhism, Hinduism and other Eastern world views would appear as a throwback on past, a form of defeatism and sour grapes. The notion of “progress” meaning greater material wealth feeds consumerism, leading to increasing exploitation of nature, pollution, etc. etc.

The most typical and traditional Indian perspective on time is that it is not linear but circular and cyclical; there is a perennial cycle of creation, sustenance, and followed by dissolution – again and again and again. Moreover, within each eonic cycle, societies as believed to start with a pristine, positive and healthy state – an age of truth or satya yuga, and from there is continual decline in social ethos leading to what Weber would call anomie, a state of lawlessness. People of many societies today may think of this as true, although an undying optimism may suggest otherwise. But then, what are the criteria for the measurement of progress or regress? Modernism has meant progress largely in materialist sense. Perhaps we as psychologists need to recognize that this is essentially an issue of ethics, of values, which differ from individual to individual and most of all, culture to culture. Value-free science won’t help.

#### SPACE

In a fundamental way space is a matter of physics; as Descartes would have it extension in three dimensional space is an essential feature of physical entities: of the body and not of mind. Our dreams may be big or small in a figurative way, but dreams, thoughts, ideas, ideals and other important psychological entities are NOT measurable in length, breadth and height.

We must recognize that Einstein, the quintessential scientist taught us about the relativity of both time and space. It is interesting that his thought experiments focused on how a person traveling up in a fast elevator may PERCEIVE time. The elasticity of time and space depends on how one perceives, what and from where. Have we as psychologists taken the

PHENOMENOLOGY involved in this view of a physicist?

### MODERNITY

Risa has referred to modernity. But then we are supposed to be in a post-modern era. When I and my students started talking about postmodernism in our department of psychology many of our colleagues thought of us a weird folks who did a lot of talking of such “philosophical” issues. I would be useful to recognize that an essential feature of what is now called modernism is logical positivism: a world view that emphasizes physicalism, molecularism, empiricism – or observation as the ONLY criterion of truth, and so on. Laurence Smith has pointed out how logical positivism and Skinnerian behaviorism developed side-by-side on parallel lines. It seems to me that although behaviorism is thought to have been “dead” and philosophers like Passmore formally declared the death of logical positivism, much of psychology today works within the framework of logical positivism. The positivist view of physics as the ideal form of the pursuit of knowledge is now replaced by the increasing prestige of neuroscience and a reductionist view of consciousness. As Kiran pointed out, the traditional Indian world views have viewed consciousness as more fundamental and non-reducible into matter. The differences between worldviews based on the primacy and primordiality of consciousness versus matter are radical and fundamental, and they have very wide ranging implications for how we live our lives – individually and socially.

### TRAJECTORY OF KNOWLEDGE

As Kuhn forcefully pointed out, the pursuit of knowledge in all branches of science, and he mostly focused on the natural sciences, is guided and circumscribed by prevalent PARADIGMS: sets of axiomatic beliefs and values. As sociologists of knowledge have pointed out, all scientific paradigms function within more widely shared world views in various CULTURES. Many of the shared assumptions and values are matter of tacit knowledge that is rarely spelled out. The TRAJECTORY of the pursuit of knowledge must be understood in the tacitly viewed and culturally shared notions of time, space, and most importantly VALUES: values such as “progress” often to the neglect of what constitutes progress.

Finally: let a thousand flowers (of ideas, perspectives) bloom. Let us not buy into the notion of psychology in search of ONE single, universal paradigm – like physics, the so-called ideal science, is supposed to have.

Anand Paranjpe