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WORLDVIEWS, SCIENCE, AND THE POLITICS OF SOCIAL CHANGE

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by Mary E. Clark

Let me begin with an anecdote -- a true one. Last month, a woman I know, a specialist on Africa who is often asked to comment in the media when an African nation is in the news, was recently asked "Why is it so difficult for West African countries to develop?" Her reply went something like this: "It's their culture. You see, if a man does particularly well for a year or two, earning a good income, he soon finds himself obliged to support all his relatives, to share his wealth. **And so, there never develops a Middle Class.**"

In those three sentences is encapsulated a whole bundle of assumptions that underlie the Western capitalist worldview. Now "worldview" is the first word in my title, and I want to talk about it a bit. A "worldview" is that internalized map of "how the universe is" that each of us carries in our heads and uses as a guide to our actions, and especially in our communications with those others whose inner map is similar to our own. It is a shared map: communally, ethnically, nationally. It is the map by which we belong. It defines our social identity. We are designed, by nature, to be emotionally attached to our worldviews; they provide us the essential security of knowing how to negotiate successfully in our total environment. Without a working worldview, we are lost!

Let me analyze my African expert's worldview further. She assumes that to "develop" means becoming industrialized and Westernized. This, she assumes, necessitates the acquisition of wealth by a few, who -- driven by desire for even more gain -- do not consume that wealth, but instead invest in machines and other "capital" that will make it easier to produce even more wealth. These better-off persons, the "Middle Class", are seen as necessary to generate the social investment needed; and, by definition, they become differentiated from those left behind, the "Lower Class." A further assumption implicit in her argument is that spending wealth on this Lower Class would not lead to the kind of "development" envisioned by the Western Worldview.

Her vision carries another assumption or two: First, it assumes that

capital for investment is only to be acquired through the greed of better-off individuals. The notion that capital for investment might be acquired through taxes, or, as in parts of Sicily, through people volunteering time and materials toward a shared capital goal, is not posed as an alternative possibility. Second, it assumes that investing in the poor by giving them better food, health care, and education, is not a "real" investment. Third, it assumes that in the economic hierarchy being created, the investments of the wealthy will sooner or later trickle down to the abandoned relatives. Fourth, it assumes that this whole process of socially disruptive "development" can be brought about amicably and without violence.

Now our African expert did not invent all this out of thin air. She was simply stating what a whole culture -- the Euro-American -- says is true. **The future of all humankind lies in becoming "like us" -- we are the "cutting edge,"** the model for others to copy. Most probably, the majority here today would not agree. Most of us see things differently, but we face a huge monolith of resistance -- a billion or more people, living well-off lives in the North or in the suburbs of the South, believe that the worldview our African expert holds really is the only option for humanity. Moreover, that worldview is apparently supported by "science."

Which brings me to the second word in my title: "science." Every worldview, subconsciously, is based on a set of authoritative assumptions about "how things are." Until a couple of centuries ago, the assumptions made by most cultures generally arose from a combination of **tradition** -- of remembered tribal experience -- and of **myth** -- of heroic stories by which each generation passed along workable principles for living. Myth slowly changed and evolved with collective experience. Worldviews could thus adapt to new circumstances over time without being destroyed in the process -- which would be a disaster for the societies concerned. At each step in social change, which is what the evolution of a worldview is, some appeal to authority is always necessary to support new assumptions.

Until recently, the locus of that **authority** was the "ancestors," the "gods," a "prophet," a "revelation," even a "natural event." Only in the West, in recent centuries, have such long-standing authorities been replaced by that supposedly totally "objective" authority called "**science**."

Now I have spent nearly 50 years studying science, doing science, and teaching science. I have published several dozen scientific papers in refereed journals; I have written introductory biology texts; I was author of the Biology Panel Report for AAAS's Project 2061 -- what every high school graduate should know about science. I have been in the midst of science, and have gradually become more and more aware of its extraordinary authority in bolstering up the Western worldview -- the worldview that gave rise to it in the first place.

Over the decades, "science" has in fact become a two-edged sword: We consciously use it to learn how to live better lives, that are more in tune with our natures and with the natural environment. And we unconsciously use it to reinforce our deepest assumptions and values; we use it to "prove" those "facts" that we wish to be true, not noticing that our supposedly value-neutral methodology can, in fact, fool us if we are not extremely careful. This happens not because of any particular political biases of scientists, but because science is socially embedded in the **Western worldview**. Ideas and assumptions framed long before modern biological and social sciences came into being still frame how scientists today "see" the world, and they define the "proper" questions to ask. Modern Western science, moreover, is being offered to (imposed upon?) cultures globally, as a problem-solving device, dragging along with it its particular set of assumptions and its selected, and biased, vision.

Some of these biases, I believe, have now become highly destructive of both our planet and our societies. Let us delve into the deeper assumptions underlying those of our African expert, assumptions about evolutionary selection and human nature itself. Given the great authority of science, by misleading us in such fundamental areas of our thinking, it is making the future worse, not better.

In Crime and Punishment, Dostoevsky observed that science sees selfishness as the explanatory principle of life:

"Science, however, says: love yourself first of all, for everything in the world is based on personal interest. If you love yourself alone, you will conduct your affairs properly and your cloak will remain whole."

Now it is true that Darwin, in explaining how the evolution of so many diverse forms of life might have occurred, noted that more offspring were produced than could survive, and so, other things being equal, those variants that were "best adapted" were more likely to survive. And he did use terms like the "Struggle for Life" and said in the very last paragraph of The Origin:

"Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows."

(No doubt the violence in his language was not unrelated to the social misery he saw about him in Victorian England!)

The short-hand phrase, "survival of the fittest" has, over time, been narrowed down to mean that living organisms are in **constant competition** in a world of **universal scarcity**! It is a "war of all against all." With the all-too-common habit among scientists of mock-anthropomorphizing, it is even commonplace today to attribute intentionality to genes -- and of course, they are "naturally" **selfish**! Life is nothing but a war, with winners and losers, the latter, by definition, being "less fit." "Winning genes" endow their owners with such competitive attributes as power, aggressiveness, cleverness, or ability to deceive. It is then easy to invent "games" with "rules" to test which are the winning strategies; all you have to do is arbitrarily assign numerical values to different attributes! (This unfortunate bad habit is one scientists more and more resort to whenever they want to make an argument look "more scientific.")

Now no doubt there is competition within species in Nature (although what counts as "competition" is never nailed down!) and sometimes between

species. But the picture painted by most evolutionists, that selfishness is everything, that violence and/or deception are the pathway to survival, is simply a gross distortion. As evolutionist George Gaylord Simpson said:

"To generalize that natural selection is over-all and even in a figurative sense the outcome of struggle is quite unjustified...Struggle is sometimes involved, but it usually is not, and when it is, it may even work against rather than toward natural selection. Advantage in...reproduction is usually a peaceful process in which the concept of struggle is really irrelevant. It more often involves such things as better integration into the ecological situation...more efficient utilization of food, better care of the young, elimination of intra-group discords...that might hamper reproduction, [and] exploitation of environmental possibilities that are not the objects of competition or are less effectively exploited by others."

Despite the patent truth of that statement, evolutionists in general persist in writing about -- and looking for -- instances of competition! Of course, if we selectively look for examples of competition, we will find them. But what are we ignoring? What are we not seeing?

And why does all this matter here today? Let me tell you, briefly. This idea of Nature as competitive permeates the entire thinking of Western culture. It spills over into our thinking about our own species. It justifies an image of human nature as "naturally" selfish, greedy, aggressive; the Hobbesian image of man, invented in the 17th century, is being "proved" as evolutionarily inevitable by 20th century science! Moreover, cultures that "win", are "fittest"!

Let me give you one supposed "proof" that abounds in the current literature: If one could in fact demonstrate that other primates are behaving "as if they were selfish," then it would explain why human beings are "naturally nasty" on occasion. Individuals join societies basically out of self-interest, and any "nice things" they do for each other are merely part of an elaborate accounting system, called "reciprocal altruism." I quote from two primate ethologists:

"The theory of reciprocal altruism is of particular relevance to work on social intelligence because the evolution of reciprocity seems to require a number of complex mental operations, including individual recognition, memory, calculation of the costs and benefits of different interactions and, perhaps most important, the ability to detect cheaters. Consequently, reciprocal altruism may have exerted strong selective pressure on at least some aspects of social intelligence, both in non-human primates and in other species." (Cheney and Seyfarth, p. 43)

What this incredible paragraph implies is that vervet monkeys (the species being studied by the authors) -- and by extension all social primates -- are genetically endowed with a whole spectrum of behaviors that allows them to scheme, calculate, and even cheat, in order to insure that self-interest is being served! The authors even go so far as to wonder "whether monkeys possess a concept of reciprocity like our own." (emphasis added. p.97)

This is but one example from a growing literature. Do you see what is happening here? Western assumptions about "human nature" are being applied to studies on other social primates who, although they do not have consciousness nor intentionality (the authors admit) are reported to behave **as if they did!** Ergo, we humans must also have a similar genetic substrate that drives us to behave in similar ways. Western social theory, especially economic and political theory, but also much psychological theory, is hereby "proved" correct! We are really designed to be isolated, self-centered atoms after all. Our social propensities are nothing more than enlightened self-interest, buoyed up by a subconscious cost/benefit analysis system. Now there is a whole new area for economic theorists to expand into! Garret Hardin would applaud!

My point here today is to show how insidious "science" as an authority can become. Many evolutionists and ethologists are promoting an absurd distortion of primate and human social behavior, one that neglects masses of evidence regarding the nature and importance of bonding and of group cohesion for primate

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survival. This distortion, furthermore, is being used to reinforce the supposed "adaptive correctness" of a highly competitive economic system, one based on possessive individualism and personal greed. It is being touted as a system that provides "individual freedom," and which the whole planet should embrace.

Yet I think one could amass an even more convincing body of evidence to show that the real nature of humankind is quite different and that the image promoted by the current Western worldview is a major cause of our problems! Growing psychic alienation, especially among the young; the growing social problems: drugs, crime, poverty; growing environmental destruction; growing financial instability; growing disillusionment with government; growing disillusionment in the Third World. Indeed, I think a good case can be made for saying that the Western worldview, in its assumptions about Nature and about humanity, is, in fact, pathological. Indeed, it is becoming a self-fulfilling prophecy! By promoting competition and individualism, it is destroying the bonding, the sense of belonging, the social meaning that our basic natures require.

And what do our natures require? What are our universal needs? Those are big questions, and they do not have unique answers. Many cultures, past and present, have done a better job than the modern West has of living amicably together, of allocating wealth in socially non-destructive ways, and of living more-or-less benignly off their natural incomes. In fact, many of you are studying societies that approximate to those ideas. It seems to me that our job, as "scientists" or "scholars" or whatever we label ourselves, is to identify the attributes of the social patterns that seem to promote these things. Urgently needed is another "mirror" of humankind than the one the mainstream Western disciplines now provide. Not only those people living in other cultures, but also the disaffected youth and the discontented adults that are accumulating in every industrialized society need an alternative image of themselves, one that offers a new description of human nature and new possibilities for human society. There needs to be another voice, speaking with a **new kind of authority**,

to offset outdated scientific paradigms that belong to a now maladaptive worldview.

Such a **voice** will not come from one person, or one culture, or one discipline. Helping to find and develop that voice seems to me a charge to the members of IASCP. Note that the authority of good research, good listening and observation, and careful thinking will ultimately supercede the currently "preferred," but incorrect interpretations. But the road will be difficult, since to generate social change through changing our basic assumptions about ourselves will be resisted on three counts: (1) by the socially powerful, who benefit under the present worldview; (2) by the human psyche, itself, which tends to resist adjustment to its internal map; and (3) by the sheer physical costs of rebuilding the social infrastructure to fit new patterns of social activity. The last clearly will be easiest in the less developed parts of the world, where less has been invested in the major mistakes of the now-outdated 20th century.

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I end with two quotes from "non-Westerners", both in the August 31, 1992 issue of The Nation:

Mariana Katzarova, a recent refugee from Bulgaria:

"In Bulgaria, they arrested me because I went against the rules of the Communist society. here, they arrested me for trespassing [in an unposted, private park] -- a crime against the main rule of capitalist society, the sanctity of private property. Maybe something is wrong with both societies -- or with me?"

Eduardo Galeano, a Latin American writer:

"I confess that I don't understand why U.S. politicians are bad if they have amorous relations with beautiful and inoffensive women, but good if they have amorous relations with the great corporations that sell arms or poison....And I can't see why the countries that produce drugs and people who consume them are bad, while the way of life that creates the need to [produce and] consume drugs is good."

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