ENVIRONMENTALLY SPEAKING

Peter Schwartzman

Our assumptions need examination

There are many assumptions operating in our culture that need to be reexamined. They are powerful and they often lead us to have opinions and make/support decisions that do us a great deal of harm. In this situation, it is very important that we challenge these general beliefs in hopes that we can come to a heightened awareness of the basis of our actions, both individually and collectively. Let's consider just three of these assumptions here.

One of the biggest assumptions is the dominance of linearity in our thinking. We often assume that subjects/objects in the world interact primarily in a linear fashion. For instance, many assume that if a little bit of a chemical is safe (i.e., shows no apparent effects) then a little bit more is probably safe as well. It assumed that the effects of a chemical will grow incrementally with the dose of exposure—e.g., twice the exposure will have twice the damage.

Another example of how linear thinking works in our society pertains to changes being made to the environment. Some would say that since we are annually adding only an extra few parts per million of carbon dioxide to an atmosphere that has ~400 parts per million (of this greenhouse gas) to begin with, resulting changes will be inconsequential for quite some time. That is, we won't see catastrophic changes soon. Rather, the Earth will get warm very slowly in response to these new gasses.

A last way in which linear thinking rears it head is in terms of looking for one-to-one relationships between cause and effects. It assumes that there is *one* ultimate reason for all outcomes. For example, if a destructive hurricane hits a coastline, it either occurred because of "global warming" or some other cause. And if it didn't occur because of "global warming," then some see this as support for increased skepticism concerning global warming's existence.

All three forms of linearity have a place in our society. There are likely a multitude of reasons (sorry, no linear reasoning here) for this—among them, we believe what the media tells us (and they are often looking for simple solutions to complex problems) as well as our educational exposures which also emphasize linear, single-factor relationships (for sake of simplicity as well). The problem with linear thinking occurs when we assume that most interactions are of this form. It turns out that science is learning more and more than linear models are not representative of the bulk of interactions among species nor the governing mechanisms that control the climate or other complex processes found on Earth. Hence, there appear to be thresholds or tipping points that are often not predictable when it comes to understanding important questions, such as, "How many trees can be cut in a forest before it loses its ability to maintain its ecological integrity?," or, "At what global temperature will the polar ice sheets melt?" Thus, by avoiding the uncertainty inherent in some non-linear relationships, linear thinking leads us to feel much more comfortable about future changes on the planet than alternative forms of thinking might. Additionally, linear thinking fails to consider the multitude of contributing factors (many unknown or, even, unknowable) that are operating on this planet. For instance, toxins affect us differently depending on the "soup" of other toxins in our bodies at the time of exposure—some chemicals act synergistically (cooperatively) and can do much more/different damage when working in tandem with other ones. In addition, some scholars now recognize how incredibly important the diversity of soils (the creatures **and** the chemical components) is to the maintenance of life that we observe above ground. Thus, understanding this one additional factor, might lead us to consider our current industrial agricultural model antithetical to the health and vitality of soil, and life in general. Ultimately, dominating our thinking with linear modes might give us the allusion of being safe and secure but it does so by tricking us rather than allowing us to contemplate the full scope of relevant contributors and outcomes.

Economics has a huge role to play in our lives. Literally, today, we cannot not live without engaging in economic transactions with people and corporations. Think about it, how long could you stay alive on this planet today without buying something (or using something that has already been bought)? Thus, we routinely engage with others in economic forms and one of the most regularly referenced principles underlying these interactions is known as "supply and demand." In this model, the price of an object (say, a car) will fluctuate until it brings equilibrium between the supply and demand (of said car). The problem with this model is that it fails to explain why certain commodities aren't found in the marketplace, particularly commodities that seemingly have a role to play in our healthy future.

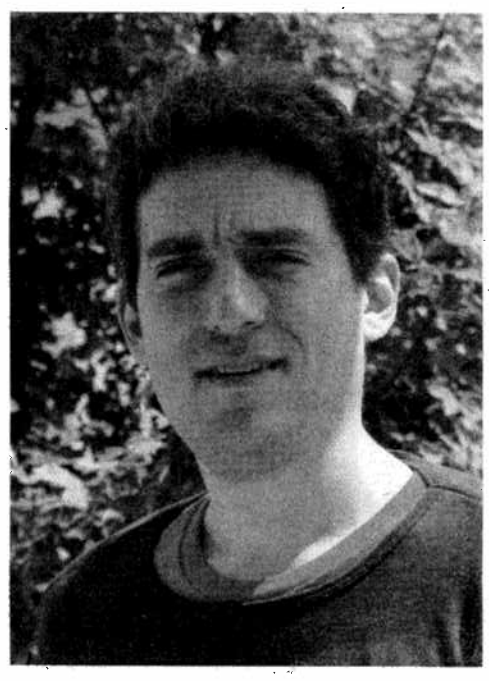
For example, electric cars and efficient public transportation options would seem to be highly desirable products today (especially with gas at $4 a gallon) but yet they are largely unavailable to most people; the same could be said for large-scale access to renewable energy. Yet, many people think, based on a simple understanding of "supply and demand," that as soon as more people come to desire a particular product, manufacturers will do their darnedest to supply consumers with it. Realistically, however, the powers that be (here the auto manufacturers and the oil multinationals that benefit from personal vehicles that are inefficient) have a great interest in keeping certain products off the market. As was vividly exhibited by electric cars made for California drivers earlier this decade, the demand for them was large but the company supplying them decided to remove them from the roads (as well as lobby to make sure that zero-emission vehicles were removed from state mandates). (The movie, *Who Killed the Electric Car?*, describes the entire sequence of events that led to this horrendous outcome). One can buy electric cars from small manufacturers but the big guys have all but decided that these alternatives must be eliminated as an option (for most passengers). (Stories of this type should not surprise us here in Galesburg. Roughly eighty years ago, several large corporations "worked" together to ensure that Galesburg's electric street cars were eliminated.) Patents on batteries (which can and have been monopolized historically) make it more difficult for small producers to provide the most technologically advanced products as well.

Additionally, "supply and demand" often assumes that demand is coming from well-informed consumers. This perspective ignores the incredible power of influence of the advertising industry. When was the last time that you saw a fuel-efficient automobile promoted as sexy, powerful, and edgy? Ultimately the consumer (and the environment) suffers when these products are kept out of the market. Where did supply and demand principles go? Don't always assume they are operating. Find out what other factors are acting. There are many other useful products that are banned in the United States for frivolous reasons, such as, hemp and stevia. Check these out as well. The truth about them may prompt you to reconsider what the current economic and political rules and structures are really operating in 2008.

Lastly, what assumptions do we make around the concept of intelligence? I contend that while our society puts great value on intelligence, its narrow range of recognized forms is not in keeping with a healthy society. High levels of intelligence are associated with high scores on standardized tests, advanced academic degrees, and the ability to recall lots of factual information. As someone who has excelled at these standards (at least the first two) and, by profession, who is surrounded by others who do, I'd like to see a serious reworking of the concept of intelligence.

There are lots of skills that come in handy as a human. Being able to solve complex math equations and read esoteric literature may be useful for some of us. Others find great utility in the areas of construction, art, music, cooking, teaching, etc. All of these abilities give us ways to solve problems and means to derive satisfaction and enjoyment. As such, they must require a great deal of intelligence as well. Yet the dominant "intelligence" tests of today do not assess a person's ability in these areas. More importantly, the way intelligence is promoted today, it isn't whether what one knows is being used for good, honorable aims, but rather whether one has assimilated a certain list of recommended skills (here, a mastery of complex math forms and high-falutin language is esteemed). Unfortunately, in a society that gives so much privilege and power to its "intelligent" members, it is very destructive to define intelligence so narrowly.

Not only would we benefit from expanding the skill sets that are associated with intelligence, we would greatly benefit if we acknowledged that knowledge and know-how in subject areas that are key to our individual and collective survival (such as, ecological and historical ones) should be privileged in our society, especially given current environmental trends and challenges. Is it not more important to know which plants are edible than what albums have gone platinum or which soils are fertile than what batting average The Babe had in 1929? Yet, which of these questions will most likely be asked in our cultural games that stock our cupboards? Based on these games and many standardized tests, which



realms of knowledge are being privileged? At what cost?

There are members of our society that have a deep sense of connection to the Earth and its cycles. These people, who, in my experience, disproportionately come from indigenous communities, are the true intellectuals. It is time that we started listening and learning from them rather than the "intellectuals" that stream through our cable wires or satellite beams. Language is a dynamic entity in culture; perhaps we can begin transforming the term "intelligence" so that it is more useful to our survival than to our egos.

So there you have it—three assumptions that deserve review. Where do you stand on these? What other assumptions are you eager to deconstruct? What are you waiting for?

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