## Drinking Water Quality is Unrelated to Public vs. Private Ownership

There is a passage in Richardson Dilworth's "Privatization, the World Water Crisis, and the Social Contract" (*PS*, January 2007, 49) that requires careful attention. Prof. Dilworth writes:

> Key to a successful social contract, then, is a system of incentives appropriate to a given state of nature, or, in other words, incentives premised on a reasonably accurate appraisal of human nature. 'Human nature' is of course a construct of a specific place and time, which thus requires a different social contract in different contexts (cf. Macpherson 1962).

In a discussion of the human need for pure water, this use of theoretical language familiar in the works of Hobbes, Locke, and Rousseau is as anachronistic as the citation that follows the passage's second sentence. Over the last decades, research in fields as diverse as human genetics, ethology, primate research, cognitive neuroscience, and social psychology have revolutionized the understanding of human biology and its relation to social behavior (i.e., "human nature"). Prof. Dilworth is free to dismiss sociobiology insofar as some statements associated with this term are not fully supported by empirical evidence. But to recycle Macpherson's explicitly ideological critique of early modern philosophic concepts of human nature is misleading if not flatly FALSE.

Several examples may help.

1. The need for water is a biological necessity for all human beings (and mammals more generally). To view this need as a "construct of a specific place and time" is absurd.
2. Dilworth's statement shows lack of familiarity with research in human biology and toxicology—that is natural sciences with direct relevance to the nature of normal human development and behavior.
3. In defining "human nature," advances in genetics show the anti-scientific implications of over-extending the concept of the "social construction of reality." The capacity to learn in a spoken language is innate, as illustrated by species typical localization in the human brain of the language centers that perceive and express speech (see Steven Pinker, *The Blank Slate*).
4. Variable human traits have also been traced to human nature. For instance, genes associated with ADHD have recently been identified as well as evidence that bodily absorption of lead has similar effects on behavior. Even if "hyperactivity" is sometimes misdiagnosed, to deny all biological information on ADHD would result in failures to treat and understand a naturally occurring condition that—from a scientific view—was probably the most adaptive human phenotype among early hominid hunter-gatherers. Evidence of change doesn't eliminate objective knowledge of human nature and the conditions conducive to a decent human life: even physicists now emphasize the contingencies of time and place (as is especially evident in astrophysics: see Tucker et al., "Black Hole Blowback," *Scientific American*, March 2007, 42–9).
5. Given lasting harm to infants and young children from lead or other toxins in public water supplies, Prof. Dilworth's apparent dismissal of scientific evidence concerning water quality is shocking. Those affected by water pollution would have every reason to see it as an ideological defense of all private industries whose releases of toxins enter water supplies.
6. I have personally documented the harmful effects of polluted slag piles from old copper mines that are poisoning both the children of the OujéBougoumou Cree community on Lake Chibougoumou in northern Quebec and the population of Silver Valley, Idaho. Even though corporations had a responsibility for the original pollution, in both cases actions of public officials also raise serious questions. Given the harm to children that's involved (e.g., asthma found in 40% of the children in Silver Valley), I feel a moral responsibility to express outrage at the potential injustices associated with the premises established in Dilworth's article.

Toward the end of his article (pp. 52–3), Prof. Dilworth claims that "the anti-privatization literature . . . is based on an antiquated construct of human nature derived from folk society in which the corporation is an interloper. A more realistic model of the world water contract would acknowledge that the corporation is a structure inherent to, and thus a legitimate part of, urban society." Has Prof. Dilworth ever heard that corporations in other industries have often been guilty of polluting public water supplies, which provide a classic case of the problem of public goods (which in this case concerns a resource necessary for the survival of individuals and societies)?

Equally important, Prof. Dilworth seems unaware that problems due to decisions of local or federal governmental agencies often create problems consistent with his own position. To cite an example on which there are a number of publications in scientific journals, substantial harm arises from the use of hydrofluorosilicic acid and sodium fluoride as chemicals replacing sodium fluoride for the fluoridation of public water supplies. This is hardly "an antiquated construct of human nature derived from folk society"—and it has nothing whatever to do with thinking "the corporation is an interloper." In this case, the issue is due to decisions by the U.S. Federal Government with identical effects whether the owner of a municipal water system is public or private.

The issue of silicofluoride use is a legitimate question for political science. Published data suggest that these chemicals have effects on brain chemistry and behavior that include increased absorption of lead from the environment and increased rates of learning disabilities, substance abuse, and violent crime in communities using these chemicals. A biological consequence like acetylcholinesterase inhibition (found by the German chemist Westendorf) is hardly "an antiquated construct of human nature." Quite the contrary, that phrase more accurately would apply to Prof. Dilworth's article, which shows a blatantly anti-scientific bias.

With regard to toxins like lead, manganese, and the silicofluorides, one consequence of failure to prevent pollution of a water supply—be it public or private—is tantamount to criminal negligence. Moreover, whether the administration of a local water supply is in public or private hands, a failure to consider the

 DOI: 10.1017/S1049096507070886 

https://doi.org/10.1017/S1049096507210881 Published online by Cambridge University Press

regulatory issues with regard to an element on which human survival depends is shallow and unprofessional.

To see that the public/private and national/local dichotomies Prof. Dilworth emphasizes are irrelevant to the concrete issues facing human use and access to water, all that's needed is to see *The Painted Veil*, a film in which the problem of local water pollution and cholera in rural China is central. That film provides extensive evidence of harm arising from water under local community control by a population unaware of scientific knowledge. Because similar kinds of pollution can also be a problem for privatized water in many places, *The Painted Veil* shows that evidence against "folk society" can cut against industrial corporations as well as urban governments. The major issues related to water supplies concern technology and science rather than the form of ownership.

To make matters worse, there's another water problem that is truly international in scope. Global warming poses increasing risk of melting ice in both the Arctic and Antarctic, with the consequence of substantial increases in global sea levels. Industrial pollution is one factor in global warming, but governmental actions are another. Since ice melt may cause a rising sea level that floods New York City, the problems of New Orleans after Katrina should make the point (even after flood waters have receded, the local water supply is terribly polluted). These contemporary events should convince Prof. Dilworth to think of water in a scientific context that renders his focus on public versus private ownership and operation secondary to issues of quality as well as quantity that are genuine matters of life and death to individuals and societies.

Prof. Dilworth should revise his article to reflect the literature on mammalian biological needs (cows, horses, dogs, and cats also need water) as well as the scientific evidence of the harmful effects of the pollution of water supplies (whether owned or administered by a private corporation, a local community, or a national government).

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## References

Dilworth, Richardson. 2007. "Privatization, the World Water Crisis, and the Social Contract." *PS: Political Science and Politics* 40 (January): 49–54.

Macpherson, C. B. 1962. *The Political Theory of Possessive Individualism: Hobbes to Locke*. New York: Clarendon Press.

Pinker, Steven. 2002. *The Blank Slate: The Modern Denial of Human Nature*. New York: Penguin Group.

Tucker, Wallace, Harvey Tananbaum, and Andrew Fabian. "Black Hole Blowback," *Scientific American*, March 2007, 42–9

## Reply to Prof. Masters

I'm happy to report that I agree wholeheartedly with Roger Masters that we humans have a biological rather than a socially constructed need for water. In fact, Prof. Masters and I are so much in agreement on this point that I don't feel it necessary to consult "the literature on mammalian biological needs" as he suggests. As a mammal myself, I firmly believe that I would die were I denied water for a sufficient length of time, though I plan on keeping this an untested hypothesis.

I'm also happy to report that I agree with Prof. Masters that water pollution, and its myriad causes, is a serious issue that adversely affects the lives of millions of people. Had water pollution been the subject of my article, Prof. Masters would have seen that we do in fact agree that it's a problem. My article (*PS*, January 2007, 49–54) was instead a critique of a specific literature that regards water privatization as a threat to the human right to water. Prof. Masters' contention that privatization is irrelevant to water quality is itself somewhat irrelevant to the literature I addressed in my article, though I would direct him to the excellent article I cite by Jennifer Davis (2005), which finds that "Case-based evidence in several OECD countries suggests that privatization has helped utilities achieve compliance with water quality and wastewater treatment standards" (163).

Prof. Masters' main critique of my article appears to be that, if the need for water is conceived of as a social construct and thus entirely relative, it provides no solid moral ground upon which we can say that it is bad to pollute water. This is a gross misrepresentation of my original article, but it does raise some interesting questions, since the ostensible solution to water pollution—establishing water quality standards and a regulatory body to enforce those standards—rests upon a definition of "quality" water that is in fact socially constructed.

An excellent case-in-point is the controversy surrounding the Environmental Protection Agency's decision at the end of the Bill Clinton administration to change the permissible level of arsenic in drinking water from 50 to 10 parts per billion, and the incoming George W. Bush administration's decision to postpone that decision for further study. The controversy involved not only the likely effects of low levels of arsenic on human health, but also the cost, particularly to small water companies, of system upgrades to meet the new standard, relative to the benefits of reduced cancer rates in susceptible persons, who could conceivably be supplied with bottled water at a relatively low cost.

Regardless of one's opinion about how much arsenic should be permitted in drinking water, the larger point is that binding definitions of permissible levels of any pollutant are socially constructed definitions of "quality" water. Arsenic is particularly instructive as an example because it is an element that occurs naturally and is used in various ways in industry, mining, and agriculture. Thus, depending on the source of the arsenic, lowering permissible levels can be either a process of altering "natural" water to create a socially-defined form of "quality," or a process of reversing the effects of human actions to bring water back to its "natural" state. In either case, water becomes inextricably tied to definitions of "nature" and "quality" that are only partially related to mammalian biological need. If Prof. Masters is making an argument for better water quality standards, he is just as guilty of engaging a social construction as am I.

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https://doi.org/10.1017/S1049096507210881 Published online by Cambridge University Press