out that Bras *et al.* mention only selected opinions in favor of the proposed project. One could equally cite opinions against the project, such as those of the Italia Nostra (the main heritage organization in Italy), the WWF, and other environmental organizations in Italy. Locally, a working group commissioned by the Venice City Council found the environmental impact study prepared by the Consorzio (*1*) to be seriously flawed (*5*). Presently, there is no consensus about the merits of the proposed gates.

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References and Notes
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2. *Report on the Mobile Gates Project for the Tidal Regulation at the Venice Lagoon Inlets* (Collegio di Esperti di Livello Internazionale, Venice, 1998).
3. *Interventi alle bocche lagunari per la regolazione dei flussi di marea* (Ministry of the Environment, Rome, 1998).
4. A. J. Ammerman *et al.*, *Antiquity* **73**, 303 (1999).
5. *Opinion of the Working Group on the Environmental Impact Study On the Preliminary Design for Tidal Flow Control Barriers at the Lagoon Inlets* (Venice City Council, Venice, 1997), pp. 1–41.

Ethical Behavior as a Stakes Game

WHEN READING "HOW PREVALENT IS FRAUD? That's a million-dollar question" by Eliot Marshall (News of the Week, 1 Dec., p. 1662), I was stunned to find that researchers and policy-makers seem to consider fraud in original research to be the same as or at least on par with undergraduate student cheating in science laboratory courses. I think many faculty who teach at predominantly undergraduate institutions would consider the two to be entirely different phenomena.

The Office of Research Integrity within the U.S. Department of Health and Human Services, according to the article, was about to spend $1 million "to investigate the prevalence of fraud, data fabrication, plagiarism, and other questionable practices in science." Surely this money will not be wasted on studying whether undergraduates—particularly freshmen in required science classes—cheat. They do. Marshall mentions a study at Arizona State University by Elizabeth Davidson that supports my statement, in which more than 80% of students in basic biology and zoology courses admitted to manipulating data to get a higher grade. I have even known students to admit to data manipulation to defend their arguments about why they feel they deserve a better grade. For example, a student in a freshman-level chemistry lab e-mailed me, after finding I had awarded him zeros for handing in labs that had data totally different from his lab notebook: "I knew my data was way off for most of my labs, so I used data that I knew would be more accurate, that's all."

Ownership of the results of research is at the heart of the matter and is the main reason why undergraduate cheating is common, whereas data manipulation in true, original science research remains, I hope, very rare. Undergraduate students, particularly freshmen, don't care about ownership of their results—they just want a grade, as Davidson also suggests. They consider the lab and any results they obtain merely one more ticket to punch on their road to something else. Honor codes and expulsions for cheating no longer exist at all but a handful of universities, for a variety of reasons including fear of litigation, the desire to retain paying students, or the belief that a single infraction is not serious enough to warrant expulsion, so students have little fear of serious reprisal.

"There are some noble battles that people must fight, even if it is known beforehand they will be defeated. This is one such battle."

The attempted remedy that Marshall mentions—namely, a course on science ethics—can also be viewed as money wasted. One course, encompassing perhaps 40 hours of contact time and twice that in independent study, will not change the attitudes about required classes and labs learned in the first two decades of a person's life. However, unlike my criticism of spending $1 million to investigate scientific fraud that might encompass undergraduate cheating, I maintain that ethics classes should still be taught even if it might be money wasted. We must try to show our students what is ethical in a variety of situations, even if we suspect it will have little effect, as some research mentioned in the article indicates. There are some noble battles that people must fight, even if it is known beforehand they will be defeated. This is one such battle.

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In a Map for Human Life, Count the Microbes, Too

THE COMPLETION OF THE HUMAN GENOME sequence is, without question, a crowning achievement in biology. The commemorative issues of *Science,* 16 February, and *Nature*, 15 February, provide superb chronicles of this event and I, for one, will keep them as mementos of the occasion. However, accompanying articles with statements such as "the blueprint for human life" seem somewhat exaggerated.

"Our existence is...dependent on...bacterial species...living in and on us"

I would like to point out that we depend on more than the activity of some 30,000 genes encoded in the human genome. Our existence is critically dependent on the presence of upwards of 1000 bacterial species (the exact number is unknown because many are uncultivable) living in and on us; the oral cavity and gastrointestinal tracts contain particularly rich and active populations. Thus, if truth be known, human life depends on an additional 2 to 4 million genes, mostly uncharacterized. Until the synergistic activities between humans (and other animals) with their obligatory commensals has been elucidated, an understanding of human biology will remain incomplete.

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Defining Distress

DISTRESS—"A STATE IN WHICH AN ANIMAL cannot escape from or adapt to the internal or external stressors or conditions it experiences, resulting in negative effects on its well-being." This working definition, drafted by the Animal and Plant Health Inspection Service (APHIS), is under consideration by the U.S. Department of Agriculture (USDA). But, according to a letter to USDA from the Federation of American Societies for Experimental Biology, this definition of stress is "vague and could lead to widely varying, highly subjective interpretations" (News of the Week, 24 Nov., p. 1474).