



When Human Nature and Science Part Company

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It is perhaps ironic that the never-ending debate on health care reform should be regularly interrupted by reports from two other health-related sectors of import: breast implants and disease entities with tobacco-based etiology. With the human machinations and "science" manipulations going on in these areas, public trust may have been eroded to the point of legitimately questioning the reliability of any medical advice or treatment. Somewhere along the line, human nature and the integrity of scientific investigation have apparently become incompatible. Is this just another symptom of declining discipline in the ongoing process of societal degeneration?

With abundant scientific evidence to support the role of tobacco in cancer and heart disease, some data actually produced in the research laboratories of tobacco companies, it seems unthinkable that these products continue to enjoy passive approval without at least aggressive efforts to ameliorate or eliminate their destructive components. Current reports from the US House of Representatives Energy and Commerce Health Subcommittee suggest that the Council for Tobacco Research may have funded significant independent research, but then engaged in an aggressive public relations campaign to obscure early scientific findings about the dangers of smoking, or as the *Wall Street Journal* called it, "the longest running misinformation campaign in US business history." Obviously, the tobacco industry is at significant risk if tobacco controls are imposed, let alone the loss of government subsidies. Businesses, jobs, and leaf-growing farmers will be compromised. However, with the body of scientific evidence available which incriminates tobacco as an etiologic agent of life-taking disease, the need for controls appears to be no less reasonable than that regulating the "drug" industry. Recent denials by tobacco corporate heads that their products are addictive and injurious to health leave little doubt that in some quarters money has a higher priority than life.

Investigative reports linking tobacco with cancer and heart disease have been available for public consumption since the 1950s. Those who enjoy smoking and/or the use of smokeless tobacco products have generally assumed the risk that, ultimately, continued consumption could cost them their lives. Personal choices and sacrifices are indigenous to a free society. To know the consequences but disregard scientific facts, the individual capitulates to obstinance, unabated desire, or "will to have," common shortcomings in the makeup of human nature. However, today the problem is not just an individual matter, but becomes collective when the costs of treating disease sequelae are considered. States are now providing legislation and support to sue tobacco companies for the costs of treating Medicaid patients with tobacco-related diseases. If successful, these litigious efforts could put the tobacco

earnings in another pocket.

Along with the human element factor in the decisionmaking of businesspersons and consumers is the dilemma once more posed by compromised ethics of the professional researcher. The potential complications resulting from breast implants have been cause for physical suffering, mental anguish, and litigation. Willingness of manufacturers to pay off on a substantial settlement to resolve a class-action lawsuit brought by attorneys for affected patients seems to imply assumption of guilt. Although independent and company research in this area has been incomplete and inconclusive, with the exposure of government testimony, special interests, and aggressive barriers the media have helped win the day, at least for the time being.

On yet another page of this story comes the tale of researchers falsifying data related to breast cancer projects. In particular, a Montreal surgeon changed the dates of patient biopsies, allowing the inclusion of subjects not meeting protocol eligibility criteria. He believed the study participants would get better treatment and follow-up than if they had not been included in the investigation. Furthermore, he volunteered that simply because some of the patients did not meet one of 22 protocol criteria, when he knew this criterion had "little or no intrinsic oncologic importance," why should they be denied treatment? This bit of scientific fraud was embellished by the study's professional coordinator, who suggested that the data falsification had no impact on the results, so there was "no issue of public health." It has since been learned that at least 11 institutions have falsified data in a national breast cancer research project, and others are being investigated.

What motivates this type of professional behavior? Again, human nature and scientific pursuit are seemingly at odds. Inflated egos have been known to factor into the equation. Investigators with preconceived outcomes are not uncommon, nor are those with personal or professional bias. Adherence to strict scientific methodology reduces the propensity for these factors to influence results. Certainly one could cite institutional pressures for research-related publications to enhance academic promotion. To address the problem of inadequate funding for faculty salaries, some institutions have closed their eyes to practices of salary augmentation through uncontrolled intramural private practices or individual exploitation of inventions, drug research/development, or outside corporate-consultation arrangements. Personal ethics in these pressure situations can often be strained and compromised.

The observation here is that the ramifications of these professional insults can be far reaching. Public trust and public health are not deserving of compromise. To be involved in scientific investigation is a privilege relatively few have the opportunity to pursue. Abuse of the scientific process should not be excused by fallacies of human nature. The topic is important because the dental implant arena is not immune to such involvement.