Wag the Dog

January 2, 2004

The political season is heating up and the spin doctors are working overtime. As Michael Moore offers his "factual" look at 9/11 and Fox News offers "fair and balanced" coverage, it is an opportune time to consider the role of spin and politics in social science, particularly the field of addictions.

Politics and social opinion uniquely affect the social sciences. Physical science concerns itself with providing information about how the natural world works. In physical science, the political and ethical debate usually comes after the science. Do we use our knowledge of atomic theory to create nuclear plants, our knowledge of DNA to develop cloning, or our knowledge of the regenerative properties of stem cells to develop stem cell transplant technology? Social sciences concern themselves with providing information about how the social world works - how people behave and interact. Because the social sciences study the same issues the government legislates, and because we have everyday experience with those issues (when is the last time you heard someone object to quantum theory on the grounds that he had a brother once who suffered from superposition?), the politics and spin often come before the science. Politicians, media, and businesses pick and choose their statistics to make the point they want. The media presents only selected highlights of research studies, and legislators often ask government agencies to present only a narrow array of information. In the field of addictions, the debates and stances that emerge prior to the evidence are particularly heated and passionately held. They can often guide both the course addictions research takes and the interpretation and acceptance of results.

However, the influence of politics and social opinion on social science and on the field of addictions is not limited to the role politicians and advocacy groups play. This past year, the WAGER series on attribution theory pointed out the errors people make and biases they have when processing information that is relevant to their own beliefs and values. Researchers, even the researchers who study attribution biases, are not immune. Every individual's (researcher and research consumer, alike) own beliefs, politics, and emotional reactions can influence the information he or she pays attention to, retains, and reports. This is possible in the physical sciences, but more likely in the social sciences and particularly likely in the field of addictions because our experiences and emotions relate to the issues being studied.

Gambling problems and other addictions are issues mired in controversy, passionate debate, and strongly held convictions. Gambling disorders can devastate the individuals, families, and friends who struggle with them, and they exact a huge toll on society – directly, through health care costs, and indirectly, through factors like crime and poverty. Because of their precarious position between the legal world and the medical world, addictions are subject to debates about causality and cure, punishment and prevention, the moral and the mechanistic.

Given the politics and opinions that surround the field of addictions, what possible objective role can science play? Aren't we all liable to fall prey to unconscious biases, cater to the social mores of our times, and pander to the perspectives of our funders? The answer is that science is the only means by which we can begin to separate reality from bias, and fact from fiction. Sure, conscious and unconscious biases might influence science initially – in the hypotheses researchers choose to consider, the data they choose to analyze, and the interpretations they choose to present. But science is transparent and self-correcting, two characteristics that cannot be as readily ascribed to politics or public opinion.

Science, both social and physical, stands apart from other methods of inquiry because of the standardized methodology and procedure by which it operates. For any study, it is possible to brush away the layers of interpretation, assertion, and slant, look critically at the methods, and determine the validity of the research being conducted. For any study, it is possible to replicate the study, collect new information to answer the questions raised by the study or design a new study to test alternate interpretations. If acknowledged and critically analyzed, the starting point does not have to meet unobtainable standards of objectivity for science to lead us toward greater and more refined understanding of the issue at hand, whatever the politics and opinions surrounding it.

The truth can be spun and data can be manipulated to tell almost any story one would want. No argument – as we all know, "there are three kind of lies: lies, damned lies, and statistics" (Disraeli, ?)1. But that is why we as scientists and consumers of research need to be more vigilant, more thorough, and more precise, not less. As researchers and consumers of research, we need to be aware of the context in which research is conducted and interpreted, and at the same time, be willing to step outside that context. In evaluating any work, others' or our own, we need to consider what questions aren't being asked, what alternate explanations haven't been considered. In the field of addictions, which can be greatly influenced by the beliefs and policies of the times, we need to carefully consider the historical and longitudinal context within which our current findings

fit. Finally, through such awareness of bias and context, we can strive to let the science drive our interpretation of the results, instead of letting our convictions influence the science we adopt or report.

Good science speaks for itself, but we have to listen carefully.

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