

Chapter 1

Scientific Abstraction in Presidential Debates

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ABSTRACT

This chapter takes a Cultural Indicators approach to link a large-scale increase in IQ, known as the Flynn Effect, to a specific cultural product, televised presidential debates. James R. Flynn has shown that IQs of persons living in industrialized societies have increased steadily over the past century, averaging a three-point gain per decade. Flynn suggests that the IQ gains are attributable to an increasingly conceptually complex social environment. According to Flynn, an important cause of this enriched cognitive world is the increasing permeation of scientific categories into cultural products such as literature, news, and even video games. The authors test whether the use of abstract scientific terms and the employment of such terms in causal and logical analysis has increased over time in presidential debates. No evidence that the discourse in these debates has become scientifically richer is found, and it is suggested that scientific discourse with respect to economics has actually declined.

Linking Social and Cultural Indicators

A key goal of mass communication research is to link media content to some social outcome, usually attitudes or behaviors. However, mass communication research often fails to consider the actual content of media, or focuses on the content without linking it to some outcome. For example, numerous studies have found that media use, including news media use, is related to lower political efficacy, knowledge and participation.

Understanding the relationship between political attitudes, behaviors and affects and the media has become a central challenge to communication scholars. While an important body of research describes how traditional newspaper content and television news programs portray politics in ways that invite political cynicism and distrust (Cappella & Jamieson, 1997; Iyengar, 1991; Patterson, 1994), little attempt has been made to lay out what specific features of television news affect civic engagement. In this chapter, we take a different approach to “effects” research.

DOI: 10.4018/978-1-4666-5003-9.ch001

In the late 1960s, Gerbner began a project designed to examine the social role of television. The project included a call for the development of indicators to measure culturally important shifts in society. Gerbner (1973) believed that the traditional way of “taking stock” of society using economic and social indicators could be improved with the addition of cultural indicators. Such indicators would not only enhance our understanding of society, but also might result in better-informed public policy. According to Gerbner (1973), “The social and cultural transformations of our society have made economic and labor statistics and census information less than adequate to meeting our national needs with knowledge and reason” (177).

For Gerbner, television presented itself as a repository of images, narratives, conceptions and presentations that could be used as cultural indicators. He argued that by the 1960s television had eclipsed interpersonal communication as the dominant way of understanding and representing the world. It did so by disseminating broadly shared messages that could shape perceptions or recognitions of power distributions. Television was not simply a reflection of culture but also a producer of it. Understanding television’s impact on culture, and perhaps, regulation of its content, would be better informed if television’s messages were tracked in the same manner as economic and social issues. Gerbner intended cultural indicators to monitor the message system, particularly in the context of short-term policy debates about issues such as sex and violence. However, he also wanted these indicators to track changes in the broader production of culture, and to inform understanding of social and economic indicators.

The Flynn Effect

One example of a social indicator that has been carefully tracked over time is Intelligence Quotient, or IQ. It turns out that the American public is getting smarter, at least as measured by I.Q. tests. Over

the past 100 years, Americans’ I.Q.s have risen by an average 0.3 points per year (Flynn, 2007). The I.Q. score of a typical American is now some 30 points higher than that of his or her counterpart at the beginning of the last century. Similar I.Q. gains are evident throughout the developed world.

The cause of the increase— the so-called Flynn effect— is a matter of much scholarly debate. James Flynn, who originated the effect, offered an intriguing explanation of the rising I.Q. scores in his recent book, *What Is Intelligence?* (2007). After arguing persuasively that certain plausible factors, such as improved nutrition or test-taking skills, cannot account for the increases, Flynn proposes that changes in the social environment are the primary cause of the Flynn effect. But, what are the changes? He notes that the improving I.Q. scores are mostly attributable to improvements on two of the ten components of the standard I.Q. tests (namely, the WISC and Stanford-Binet tests). These two components are the Ravens’ Progressive Matrices test and the Similarities test. The former presents the test taker with a sequence of abstract symbols and asks him or her to predict the next symbol. This component is designed to assess ability to detect the underlying logic governing the sequence (Raven, Raven & Court, 2003). The Similarities section asks the test taker to explain why two items are related to each other. For instance, a question from this section might ask the test taker to explain in what way dogs and cats are similar.

According to Flynn, the Ravens’ Matrices and the Similarities test both measures an individual’s ability to think in terms of abstract concepts and categories, especially those provided by modern science. Flynn (2007) calls thinking in terms of the abstract categories of science putting on “scientific spectacles” (24). Those who don such spectacles are “liberated from the concrete” and are thereby given much greater ability to reason hypothetically and counterfactually. The ability to engage in such abstract thinking is imperative to flourish

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