

2012 Russell Ackoff Doctoral Student Fellowship Proposal

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Project Title

A Test of the Availability Heuristic: The Impact of Media Attention Devoted to Celebrity Cancer Diagnoses on Cancer Screening Rates

Descriptive Summary

Clinical evidence shows that early detection helps effectively fight cancer (see for example Zauber et al., 2012). However, the percentage of people who are following the recommendations of the U.S. Preventive Services Task Force for getting regular screening tests falls short of the desirable level (Klabunde et al., 2012). The discrepancy calls for research on identifying efficacious means to improve screening test coverage. Prior work has documented the integral role that mass media plays in planned promotional campaigns of screening tests. However, the potential for the media to *unintentionally* motivate actions beneficial to both individuals and society has not received much previous attention. Past psychology research has found that people overestimate the severity of risks with high mental “availability” or salience (due, for instance, to recent media attention) relative to equally likely risks with lower mental availability (Gigerenzer, 2004; Lichtenstein, Slovic, Fischhoff, Layman, & Combs, 1978). Following this work, the current project hypothesizes that media coverage of a celebrity suffering from a common cancer (e.g., breast cancer), whose risk should already be well understood by the general population, significantly increases the availability or salience of the disease. This research aims to extend past studies of the availability heuristic in an important field setting by investigating how publicity associated with celebrity cancer diagnoses influences ordinary citizens’ decisions to take available detection tests.

Some studies in communication and medicine have found that the public quickly responds to a celebrity’s diagnosis of or death from cancer, for example, by calling cancer information centers, seeking information on the Internet, and utilizing early detection tests (e.g., Brown & Potosky, 1990; Metcalfe, Price, & Powell, 2010). However, those studies were limited to exploring data at an aggregate market level and simply compared health-related behaviors before and after an incident over a short span.

Acknowledging that many important questions are left unanswered by this line of research, we plan to collect long-term (over 10 years) individual-level data on a daily basis from Penn Data Store and to quantify media coverage with the *LexisNexis* database and Google Insight Search. The richer data sources will allow us not only to examine the impact of celebrities’ cancer experience on screening test coverage for multiple incidents and multiple types of diseases, but also to explore underlying mechanisms, the long-term influences, and moderators of the proposed effect.

Underlying Mechanisms and Secondary Predictions

The first possible mechanism is that media reports of a celebrity's cancer episode increase the perception of susceptibility to the same disease among the population. This is consistent with the finding that "newsworthy" causes of death were rated as more likely than other causes of death (Lichtenstein et al., 1978; Combs & Slovic, 1979). Therefore, we will test two secondary predictions aligned with this potential mechanism: (1) People who are from the same age and ethnicity group as the portrayed celebrity are more likely to be influenced than those who are dissimilar to the celebrity in age and race; (2) The experience of a younger celebrity should have a stronger impact than that of an elder celebrity due to the feeling that "this disease can strike anyone."

The second possible mechanism is that media attention leads to heightened awareness of the severe consequence of a disease, which implies a secondary prediction: a celebrity whose media reports focus more on his/her psychological stress and physical affliction will lead to a more significant rise in the utilization rates of screening tests than a celebrity whose media reports cover little about his/her suffering.

The third mechanism is that people become more knowledgeable about the cancer at issue and available detection techniques after the publicity of a celebrity's misfortune, which suggests two secondary predictions: (1) Cancer-related information searching behaviors on the Internet will follow the same temporal pattern as that of test-taking (2) Celebrities whose misfortune attracts follow-up media coverage on educational information will increase screening test coverage to a larger extent than those whose misfortune does not lead to increases in educational material.

Influences in the Long Term

Prior studies only investigated the "celebrity effect" over a short time period, but long-term implications are also worth examining. Particularly, we ask the following questions:

- How long will the rise in test-taking caused by a celebrity's cancer-related publicity be sustained, and will this vary as a function of a celebrity's public stature?
- Will news coverage about a specific type of cancer increase screening tests for other types of cancer as well and over what time period?

Moderators

We are interested in some more factors that might influence the hypothesized "celebrity effect":

- Characteristics of potential test-takers (e.g., education level, age, marital status)
- Factors that influence the public's sympathy towards the portrayed celebrity (e.g., popularity of the celebrity, whether individuals are from the same region as the celebrity)
- Stage and value of the celebrity's diagnosis (e.g., whether the celebrity is diagnosed at an early stage, whether early detection is likely to lead to his/her survival)
- The amount of associated media coverage and how long media attention remains intense

Unanticipated public events provide rich opportunities to encourage health desirable behaviors. However, we believe that much work still needs to be done before valuable suggestions can be proposed to both policy makers and health agencies about how to make the best use of these "random" incidents and assess the impact they have on consumers' risk estimates due to the availability heuristic. Our project

aims to fill this gap in the literature, and we anticipate our results will be of great interest to a broad audience including economists, psychologists and physicians. I hope to share my results and get feedback at two relevant conferences: the Association for Consumer Research North American conference in Vancouver, BC, Canada and the Society for Judgment and Decision Making conference in Minneapolis, MN. The Russell Ackoff Fellowship will be used to support conference attendance, data collection and the purchase of statistical software. I appreciate your consideration of my proposal and welcome any questions related to the currently proposed research.

Advisor
Professor Katherine L. Milkman



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