

2009

Media Misinterpretation

James Naples
New York Medical College

Follow this and additional works at: https://touroscholar.touro.edu/quill_and_scope



Part of the [Arts and Humanities Commons](#), and the [Medicine and Health Sciences Commons](#)

Recommended Citation

Naples, J. (2009). Media Misinterpretation. *Quill & Scope*, 2 (1). Retrieved from

This Perspective is brought to you for free and open access by the Students at Touro Scholar. It has been accepted for inclusion in Quill & Scope by an authorized editor of Touro Scholar. . For more information, please contact touro.scholar@touro.edu.



Media Misinterpretation

James Naples

In an age of new and advancing technology it can be difficult to keep up with many of the new scientific advances that are occurring. Many of these new advances are centered around decoding the genome and understanding what role genes play in disease. Medicine, for example, is increasingly headed toward personalized therapies based on specific genetic make-ups. As a medical student, I am eager and excited for these new advances because of the potential benefits they offer.

However, I am slightly concerned that these advances are creating a disconnect between the doctor and patient. The media plays a significant role in exacerbating this disconnect by presenting these advances to the general public incorrectly. The media presents the genome as a machine programmed to control our health. The word that appears often to describe the genome is “hardwired,” and as scientists continue to unravel the genome, I think the media will continue to use this word to describe certain health issues. I am challenging the use of this word because it misrepresents the role of the genome in our health and it creates a public that is medically unwilling to accept responsibility for some of their personal health issues.

With an infinite amount of information on the internet, it is not uncommon for people to search for medical issues by simply “googling” their concerns. I searched the words “hardwired” and “genes” together on Google to see what type of information is being presented by the media. I received about 157,000 hits, and I noticed that the word hardwired is used in association with very different ideas like smiling and frowning, faith, behavior, fat, etc. The articles all seemed to be sensationalized by the use of the word “hardwired.” The headlines seemed to extend beyond the realm of what the scientific research wanted to show and entice their readers to question the stability of their own genome. That is exactly the problem with words like “hardwired.” Many people focus only on the catchy headline, and they allow concessions about their health to be made on the grounds of some misrepresented, sensationalized scientific research. These concessions create a public that is not willing to accept responsibility for their personal health.

I found one article particularly interesting that discussed the possibility of overeating as part of our genetic makeup. Entitled, “Obesity: Gene Discovery Suggests Some People are Hardwired to Overeat,”¹ the article explains how researchers have identified genes that increase the risk of obesity and that people with six new gene variants weigh on average 3.3 to 4.4 lbs more than subjects with no variants. The author then goes on to suggest that the genes, which function in the brain, make some people *hardwired* to overeat. As a medical student, I was skeptical of the way this article was written. Why doesn’t the article say anything about the subject’s diets? Could that not be a potential cause of weight gain? What about other environmental factors that could not be controlled for in the experiment? It is likely that I am attempting to hold this paper up to the scientific standards of articles that I am familiar with reading, but it is also likely that many of the people who read this article are thinking that they may have a genetic factor that is making them overeat and causing them to be obese. This is the way in which the media’s use of sensationalized words can lead to apathy of one’s personal health. They begin to accept

their fate of being overweight and instead of making lifestyle changes, they will continue down the road of health issues. While we have many genes in our DNA to control our weight and metabolism, the public doesn't understand and the media fails to emphasize that it is unlikely that a single gene is solely responsible for causing someone to become obese. In diabetes, for example, the glucose metabolism is defective, yet not all diabetics are overweight.

Another article that relates health issues to a fatalistic genome was an article in *The Economist* entitled "DNA All Over the Place."² It is based on the premise that people may be unorganized today because it benefited our nomadic ancestors of yesterday. It also alludes to fat storage and ADHD as likely genetic traits that were passed down from our ancestors, traits for which we may be, you guessed it, *hardwired*. To quote the article: "The fat, impulsive and the untidy are genetically *normal*..." While I do not doubt that there is a definite relationship between characteristics humans have today and the characteristics that earlier humans had, I am troubled once again by the fatalistic use of the word "hardwired" to describe our biological make-up. It is absolutely a legitimate theory to believe that what we diagnose as untidiness and ADHD may have better suited nomadic individuals, but the article seems to take the point too far. This point is made clear today by the growing number of people clinically diagnosed with ADHD. One would think that over time these genes for inattentiveness and untidiness would have been adapted to fit our newer society, thus slowly reducing the number of cases of ADHD, yet the opposite trend seems to prevail.

I am not questioning the legitimacy of the scientific research in these two articles, however, the way in which the information was translated is rather disconcerting because it undermines the complexities of the research. The media portrays scientific discoveries as very concrete, but what is often misunderstood about science in general is that it is a very dynamic process. It is difficult for the public to understand that science is in part a philosophy that is comprised of many complex systems. Biology, chemistry and psychology are all involved in these studies that search for gene variants. The intricacies of processes like this are simply astounding. Every step that is involved in scientific research offers a new chance to make an error. Every person involved contributes something different to the study that might change the results one way or another. There are a lot of laboratory technicalities that are misunderstood as well. Analyzing genes and DNA is not as straightforward as people may think. Without an understanding of these complexities, it is easy for people to interpret these scientific discoveries incorrectly. A faulty interpretation also makes it easy for people to become complacent with their health issues and blame genetics for their health instead of taking some level of responsibility.

“ *The headlines seemed to extend beyond the realm of what the scientific research wanted to show and entice their readers to question the stability of their own genome.”*

These are just two examples of how the science can use its authority to mislead the public about serious health issues. There is an increasing number of these articles being written and it often makes me wonder whether science is presenting too much information to a public that doesn't appreciate the challenges that the research presents. The media may be doing a disser-

vice by inundating us with facts and scientific language that people may not understand. Unfortunately, the one part of these publications that the public does understand is the sensationalist headlines and words like *hardwired*. I acknowledge that translating scientific language to the public is an overwhelming challenge, however, it is the responsibility of the media to ensure that this information is understood correctly. The health, and sometimes the safety, of the public is at stake. Do not be misled into thinking that because one possesses a gene for a certain behavior, he is destined for a fate of obesity, inattentiveness and disorganization. These characteristics are also under the control of something else: the *individual*.

REFERENCES

- [1] Sample I. "Obesity: Gene Discovery Suggests Some People are Hardwired to Overeat." [guardian.co.uk](http://www.guardian.co.uk). 15 Dec. 2008. Accessed 9 Jan. 2009. <http://www.guardian.co.uk/science/2008/dec/15/nutrition>
- [2] "The curse of untidiness: DNA all over the place." *The Economist*. 19 June 2008: 22.