

## Responsible research and the media trap

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**Abstract:** This commentary on the target article by Hook (2009) which discussed the issues and implications of the “Warrior” gene debacle extends some of the issues raised in his paper and discusses the need for better social responsibility from scientists and the media; the need for ethical training of scientists and researchers; and the need for social impact studies for scientific research.

**Keywords:** ethical research; ethnicity; genetics; Māori; social impact

### Introduction

The “Warrior” gene hypothesis refers to the proposed identification of a variation in a subtype of the *MAO* gene which was found in Māori men, which predisposes them to aggressive characteristics (Hall, Green, Chambers & Lea, 2006). The *MAO* or Monoamine oxidases are a type of enzyme responsible for breaking down neurotransmitters such as serotonin and dopamine. These can therefore be capable of affecting mood (Lea & Chambers, 2007). Studies have indicated that different subtypes of *MAO* are associated with psychiatric disorders and behavioural traits. However most neuropsychiatric and behavioural conditions depend on multiple factors including non-genetic environmental factors (Lea & Chambers, 2007). The announcement of the “Warrior” gene which was coined by popular science journalist Gibbons (2004) at an anthropological conference, led to a media frenzy, where a public debate ensued. Great offence was taken by many Māori and the public alike.

A scientific rebuttal of the research was provided by Merriman & Cameron, 2007. They heavily disputed the results of Hall et al. (2006). In which they state that they believe this conclusion is based on science with insufficient investigative rigor, both in interpreting and applying the relevant literature, and in generating new data. They further argued that no direct evidence to support the “Warrior” gene qualities to Māori males was evident and they refer to the sample size of 17 individuals as not representative of the general Māori population.

In an attempt to clarify and justify their findings, Lea & Chambers (2007) stated that much of the controversy was unjustified and stemmed from the combination of mis-quotes and misunderstandings of the original article. They further stated that: “...the ‘warrior’ gene hypothesis is a retrospective, yet scientifically plausible explanation of the evolutionary forces that have shaped the unique *MAO-A* gene patterns that our empirical data are indicating for the Māori population.” (Lea & Chambers, 2007)

They then follow by stating that the extrapolations and negative twisting of their results used by others to describe non-medical anti-social issues had no scientific basis and should be ignored. They also said that many lessons had been learned and that an Environmental Science and Research (ESR) policy working group was formed following the controversy. This group comprised Māori academics, iwi members, researchers, and scientists (Lea & Chambers, 2007).

Hook (2009) also critiques the findings of Lea & Chambers (2007) and describes the issues and implications of the results and the ensuing media frenzy that followed. Much of his discussion raised important issues including the dangers for Māori to be associated with a

gene which has various other abnormal behavioural disorders associated with it; with the fear that some may speculate that Māori violence can be placed in the same category as mental health concerns. He also raises concerns that being Māori could then be placed in the abnormal category of a syndrome and disease and subject to therapeutic intervention. He further discusses the issues surrounding eugenics and the “Warrior” gene. While this discussion is interesting it seems to be rather distant from the current situation. Of more relevance to the present is the perpetuation of stereotypical profiling and the effect not only on Māori but also on the public. This sort of negative publicity reinforces already problematic stereotypes creating fear in an already fearful and distrustful public.

Hook's article leads to some topical debates, such as the lack of ethical rigour in the research process. The other is the responsibility of the media to act ethically and portray events accurately. The media however has been known on many occasions to not abide to their ethical codes of conduct and put little thought into what the social impact might be from their publications. Therefore it lays on the shoulders of researchers to be responsible and insightful enough to know what the implications of their research are, especially on the very group they may be investigating or reporting on. It can at times, be difficult to understand the implications of one's research work; especially when working with ethnic groups that are not one's own. The scientific emphasis on objectivity is important but it can carry the risk of sometimes being diverted from the reality of the end result and the impacts on the group being investigated.

In the “warrior” gene research, the social impact of the work was not obviously accounted for. Many scientists lack the foresight to consider the cultural and social impacts of such research. If this research had gone through the process of first seeing whether it was necessary, and with a valid assessment of ethical and social impacts, the situations that occurred may not have arisen. Lea & Chambers (2007) defend their position stating that the media was responsible for the debacle and they further state that more rigorous ethical and cultural protocols are now in place. This is seen as a positive step towards responsible research, however many other organisations and institutions may lack such ethical rigour. There is also an apparent lack of ethical training incorporated in the study required for many scientific degrees. There seems to be little emphasis on this area and a consequence is that it creates generations of scientists that lack the understanding, ability and conscience to consider impacts on the very group they are investigating.

One other aspect of Hook's article is the recognition that many descriptions of pre-colonial contact with Māori are characterised by fantasia, where Māori are described as being fierce and courageous warriors, being in constant war, and voyaging over the vast distances of the ocean (Hall et al., 2006). Of course there were these sorts of people, however there were also ones that were more inclined towards philosophy, knowledge, religion and education in pre-European contexts. I wonder how the theories of the “warrior” gene also deal with the descriptors of these aspects of the pre-contact population.

## **Conclusion**

The “Warrior” gene debacle is an example of a research endeavour that probably began with the best intentions, but ultimately ended up having a severe negative impact on an already vulnerable group. Lea & Chambers (2007) describe their “Warrior” gene hypothesis and attempt to defend their results and state that much of the controversy was unjustified and stemmed from the combination of mis-quotes and mis-understandings of the original article. In this commentary, it is suggested that there is a need for more social responsibility from media and from scientists. In addition, I have suggested that scientists and researchers could do with more training in ethical matters as well as becoming more attuned to the social impacts of scientific research.

## References

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## Author Notes

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