# COLLABORATIVE DISCUSSION: CASE STUDY: ACCURACY OF INFORMATION PEER RESPONSES

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#### MY PEER RESPONSES TO OTHERS

Peer Response: To Initial Post by Hainadine Chamane (2024)

Hainadine, thank you for your analysis of Abi's behaviour in your initial post, and for posting first again. You raise the necessity for Abi to maintain professional integrity and trustworthiness (Chamane, 2024). The Association for Computing Machinery (ACM) (2018) directly references trustworthiness in section 1.3 of its Code of Ethics and Professional Conduct, while the British Computing Society (BCS) (N.D.) explicitly names professional integrity in section 2 of its Code of Conduct. Sempa et al. (2024) more deeply elaborates on research integrity and "Questionable Research practices (QRPs)" which would include Ali's falsification or omission of negative outcomes.

While you mention that the provision of both positive and negative results is a fundamental principle of the BCS (N.D.), it would be clearer for the reader to understand which principle or principles you are referring to. For instance, principle 1.a. relates to public health and well being of others, while 2.f. describes avoiding injury due to falsification (British Computing Society, N.D.). Although 2.f. prevents injury to public health, full disclosure is likely to damage the reputation of Whizzz, which may lead to their modification of the results.

You have addressed the professional impact of Abi's choices, but I would be interested to see more on the legal and social impact, including any legislation that may help Abi. If they modify his full results, what recourse does Abi have?

ACM (2018) ACM Code of Ethics and Professional Conduct. Available from: https://ethics.acm.org/ [Accessed 3 May 2024].

British Computing Society (N.D.) *BCS Code of Conduct for members - Ethics for IT professionals* | *BCS*. Available from: https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct [Accessed 3 May 2024].

Chamane, H. (2024) *Initial Post (RMPP Collaborative Discussion 2)*, *UoEO*.

Available from: https://www.mycourse.co.uk/mod/forum/discuss.php?d=235548#p425646 [Accessed 25 June 2024].

Sempa, J.B., Patil, R., Mathewson, J.D., Kabelka, H., Yaghmaei, N., Coleman, H., Sohoni, P., Straetemans, M., Gopalakrishna, G., Wienia, M., Kombe, F. & Alba, S. (2024) Aligning the principles and practice of research integrity and research fairness in global health: a mixed-methods study, *BMJ Global Health* 9(3): e013917. DOI: https://doi.org/10.1136/BMJGH-2023-013917.

#### Peer Response: To Initial Post by Michael Botha (2024)

Michael, thank you for your breakdown of research ethics in your initial post. While you speak abstractly about ethics, I am curious to see the application to Abi specifically. Which specific points of Dawson's is Abi in risk of breaching, and why? For instance, Dawson's (2015) section on ethics explicitly discusses honest reporting and omission of results which do not conform to the hypothesis.

I am confused by your reference of 2(b) of the British Computing Society (BCS) (N.D.). You mention it in association with criticising truthfully, yet 2(b) is about falsely claiming to have capabilities. From my reading of the BCS Code of Conduct, principles 1(a) on public health and well being, 2(f) on avoiding injury through false claims, and especially 3(e) on misrepresenting of product performance seem most appropriate.

In your final paragraph, I do not see the questions you presented that you believe can be answered. The previous paragraph contains general statements on impact, bias, truth and ethics committees, not questions. Furthermore, what do you mean by approach? Which approach?

I would also like to see an explanation as to what points were raised by Bradley et al. (N.D.) that led to your conclusion that the approach is naïve. For instance, from Bradley et al.'s (N.D.) paper, it appears that at least 'outcome switching' and 'questionable research practices' could apply to Abi's ethical dilemma.

Bradley S.H., DeVito N.J., Lloyd K.E., Richards G.C., Rombey T., Wayant C. & Gill P.J. (2020) Reducing bias and improving transparency in medical research: a critical overview of the problems, progress and suggested next steps, *J R Soc Med.* 113(11): 433–443. DOI: https://doi.org/10.1177/0141076820956799.

British Computing Society (N.D.) *BCS Code of Conduct for members - Ethics for IT professionals* | *BCS*. Available from: https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct [Accessed 3 May 2024].

Dawson, C.W. (2015) *Projects in Computing and Information Systems*. 3rd ed. Harlow: Pearson.

#### Peer Response: To Initial Post by Steve Fisher (2024)

Thank you, Steve, for your post discussing Abi's ethical considerations and potential recourse for misuse, as well as the applicable regulatory law for your region. While you succinctly raise valid points, some changes would strengthen your argument.

I think you mean Abi's suggestions of different analytical techniques to attain specific results are 'unethical' as opposed to 'ethical' (Fisher, 2024). (My personal trick is to use Microsoft Word's 'Read Aloud' under the 'Review' tab to catch these.) It would also be stronger if you named the numbered code of conduct which Abi might breach. For instance, the British Computing Society (BCS) (N.D.) Code of Conduct principle 3(e) mentions product performance misrepresentation. Furthermore, your assertion that adherence to ethical requirements by Abi's report is sufficient to protect him from enforcement would be better substantiated by a citation.

While your observation that the Advertising Standards Authority, Food Standards Agency, or Trading Standards could be used is helpful, it would be strengthened by citations to those organisations and inclusion of region. For example, the Food Standards Agency (N.D.) is the United Kingdom's (UK) regulatory authority for reporting food quality and safety misrepresentation. This would be further strengthened by an academic source on reporting ethical breaches.

Similarly, your conclusion on the European Union (EU) regulation and UK law is insightful, however, it too would benefit from citation.

British Computing Society (N.D.) *BCS Code of Conduct for members - Ethics for IT professionals* | *BCS*. Available from: https://www.bcs.org/membership-and-registrations/become-a-member/bcs-code-of-conduct [Accessed 3 May 2024].

Fisher, S. (2024) *Initial Post (RMPP Collaborative Discussion 2)*, *UoEO*. Available from: https://www.my-course.co.uk/mod/forum/discuss.php?d=236967#p429315 [Accessed 25 June 2024].

Food Standards Agency (N.D.) *Homepage* | *Food Standards Agency*. Available from: https://www.food.gov.uk/ [Accessed 16 June 2024].

Peer Response: To Steve Fisher's Response to my Peer Response on his Initial Post (2024)

Hi Steve,

Re: 1: Interesting. We each interpreted the assignment wording differently. I think both of our interpretations are valid. I read it as he was presenting multiple conclusions, solely because he thought other correlations would be more positive towards Whizzz, which seems unethical. Whereas, when I reflect on how you could view his behaviour as 'ethical', it seems that you interpreted it as there are multiple perspectives and it is best to share the full range of analysis (Fisher, 2024).

Re: 4 and 5: I see now that you mention the UK. Unfortunately, my focus was drawn to the bullet points, and not the sentence above it (Fisher, 2024). Yours was my last peer response and past midnight, so I apologise for missing it.

Fisher, S. (2024) *Initial Post (RMPP Collaborative Discussion 2)*, *UoEO*. Available at: https://www.my-course.co.uk/mod/forum/discuss.php?d=236967#p429315 [Accessed 25 June 2024].

PEER RESPONSES TO ME

Peer Response: From Michael Botha (2024)

Hi Maria, thanks for your post. Do you believe some form of research governance

should be put in place to prevent incorrect reporting like in the case you mention

(Bradely et al., 2020)?

References:

Bradley, S., DeVito, N., Lloyd, K., Richards, G., Rombey, T., Wayant, C., Gill, P.

(2020) Reducing bias and improving transparency in medical research: a critical

overview of the problems, progress and suggested next steps. J R Soc Med. 2020

Nov 113(11):433-443. DOI: 10.1177/0141076820956799.

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#### **Peer Response: From Hainadine Chamane (2024)**

Hi Maria,

Your post effectively outlines the ethical obligations of individuals when presenting statistical data supported by multiple references. Concealing relevant findings is deemed unethical, and your mention of Berenson et al. (2019) further underscores the importance of transparency and integrity in data reporting. Your critique of Abi's behaviour rightfully focuses on the selective consideration of favourable correlations and disregarding harmful ones. While your post cites Berenson et al. (2019) as a strong point, it could be further strengthened with more specific details about Abi's actions and the context, as Veetikazhi et al. (2020) note.

Your reference to the ACM (2018) Code of Ethics is a powerful reminder of the principles we should uphold in our work, particularly those related to human well-being, avoiding harm, and honesty. This framework bolsters the argument that Abi must report findings honestly and comprehensively. The mention of the Andrew Wakefield Case, a stark example of the consequences of unethical reporting (Masic, 2020), serves as a solid cautionary tale.

Your post rightly emphasises the importance of ethical guidelines and best practices in statistical analysis, particularly regarding the potential misrepresentation of statistical details, as Tractenberg (2020) points out. It suggests the necessity of reporting such unethical behaviour to appropriate regulators (Wiśniewska, 2022), underlining the urgency of maintaining the integrity of our field.

While I agree with your findings, integrating Abi's actions within the context of the case study and the questions presented would further enhance your analysis.

#### References:

ACM (2018) ACM Ethics. [online] ACM Ethics. Available

from: <a href="https://ethics.acm.org/">https://ethics.acm.org/</a> [Accessed June 20, 2024].

Berenson, M., Levine, D., Szabat, K. & Stephan, D. (2019) *Basic Business Statistics, Global Edition*. 14th ed. Harlow: Pearson International Content.

Masic, I. (2020) Unethical Behaviors of Authors Who Published Papers in the Biomedical Journals Became a Global Problem. *Medical Archives*, 74(1), p.4.

DOI: https://doi.org/10.5455/medarh.2020.74.4-7.

Tractenberg, R.E. (2020) Concordance of professional ethical practice standards for the domain of Data Science: A white paper.

DOI: https://doi.org/10.31235/osf.io/p7rj2.

Veetikazhi, R., Kamalanabhan, T.J., Malhotra, P., Arora, R. & Mueller, A. (2020)

Unethical employee behaviour: a review and typology. *The International Journal of Human Resource Management*, 33(10), pp.1–43.

DOI: https://doi.org/10.1080/09585192.2020.1810738.

Wiśniewska, M. (2022) Just culture and the reporting of food safety incidents. *British Food Journal*. DOI: <a href="https://doi.org/10.1108/bfj-12-2021-1316">https://doi.org/10.1108/bfj-12-2021-1316</a>.

#### Peer Response: From Sahr Solar Sumana (2024)

Hi Maria, your post details the ethical implications and risks that could be the result of data misrepresentation. Your post also states where ethical considerations arise which is when the researcher is deciding which results to include in a report (Berenson et al., 2019), it was a good idea to include the types of consequences that Abi could suffer as a result of manipulating results which can include fiscal and criminal retribution.

The key comparison to the Andrew Wakefield case is an ideal real-world example on the long-term damage that can be caused by fraudulent research. It was found that Wakefield had a conflict of interest when conducting this research as he had involvement with a lawsuit against the manufacturers of the MMR vaccine in which he wanted financial gain (Godlee, Smith and Marcovitch, 2011). With this knowledge do you think there is a control that could be put in place that could eliminate conflict of interest within researchers or do you think that this is a confounding variable?

Lastly, I like how your initial post goes into systematic methods in which Abi can avoid misrepresentation of the results produced from their research. With methods such as indicating sample sizes, confidence levels, interval limits, sampling errors, and interpretations, Abi can ensure transparency (Berenson et al., 2019). This shows that Abi's responsibility reaches beyond just presenting data to the company, they must ensure that their findings are used ethically.

#### Reference List:

Berenson, M.L., Levine, D.M., Szabat, K.A. and Stephan, D.F. (2019). *Basic Business Statistics : Concepts and Applications*. Harlow, England Pearson.

Godlee, F., Smith, J. and Marcovitch, H. (2011). Wakefield's article linking MMR vaccine and autism was fraudulent. *BMJ*, [online] 342(jan05 1), pp.c7452–c7452. doi:https://doi.org/10.1136/bmj.c7452.

## Peer Response: From Steve Fisher to my Peer Response on his Initial Post (2024)

Hi, Maria. Many thanks for your response and here are my thoughts:

- 1. You are incorrect in your assumption that I meant 'unethical'. I was pointing out that it his responsibility to analyse the data in all possible ways. Do you think that by omitting the method which would put the data in a more favourable light Abi could be accused of bias?
- 2. I agree that citing the relevant code violations in more detail would enhance my argument.
- 3. I also agree that if I could find specific, relevant case law, my point regarding Abi's defence would be enhanced. Unfortunately I was unable to find any within the time constraints I had.
- 4. Regarding your comments about Abi's options, I do make it clear that these organisations are in the UK '...he has several options in the UK depending on the manner of misuse...". I didn't feel a citation was required in this context in text hyperlinks to the relevant websites would have been useful. I agree.
- 5. I am confused about your comment regarding citation of the UK legislation. It is cited and referenced although perhaps the fact that it is in italics is the crux of your objection?. If you disagree, please feel free to expand on your comment.