

Evaluating Discussions and Conclusions

What we will cover:

1. Consider what a discussion section is for
2. Discuss elements we expect to see
3. Identify statements that should be avoided



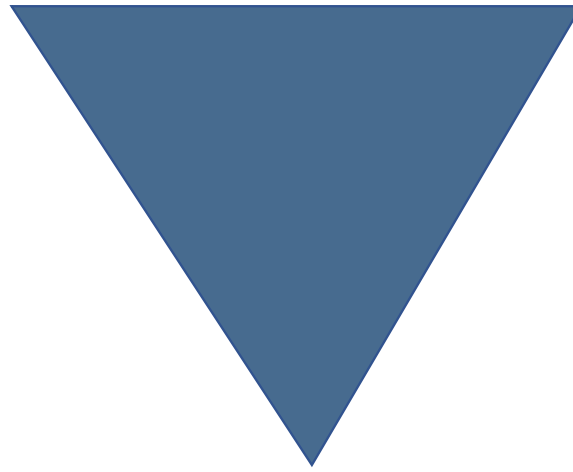


1. Purpose

The purpose is to...

- Explain how the results address the aims
- Fill the gap of knowledge
- Suggest future research
- Assess the impact of the research





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2. Five Main Themes

1. **State findings**

2. Explain importance

3. Relate findings

4. Limitations & Alternate explanations

5. Take-home message

- Explicit statement of findings
- First statement in Discussion
- Followed by key findings



Discussion

This paper reports marked sex differences in the distribution of Darwin Award winners, with males much more likely to receive an award. This finding is entirely consistent with male idiot theory (MIT)^{16 20} and supports the hypothesis that men are idiots and idiots do stupid things.

However, this study has limitations. One of the weaknesses is the retrospective nature of the data collection. One alternative explanation for the marked sex difference in Darwin Award winners is that there is some kind of selection bias. Women may



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- Judge whether new references are useful
- Does the discussion restate the data?
- Does it offer interpretation?
- Do you have your own interpretations?



1. **State findings**
2. Explain importance
3. Relate findings
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5. Take-home message

- Operational research question is crucial
- Look for:
 - Focussed interpretation
 - Creative critical thinking
- Include your own suggestions



1. State findings
2. **Explain importance**
3. Relate findings
4. Limitations & Alternate explanations
5. Take-home message

- Meaning, relevance and importance
- Are you required to comment on the novelty?
- Does the paper further the journal's goals?



1. State findings
2. **Explain importance**
3. Relate findings
4. Limitations & Alternate explanations
5. Take-home message

- What is the meaningful value of a:
 - Statistically significant result
 - Small effect size
- Give the Editor your thoughts



1. State findings
- 2. Explain importance**
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- Are the conclusions evidence-based?
- Are the stated aims addressed in the discussion?
- Create a checklist



Discussion

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However, this study has limitations. One of the weaknesses is the retrospective nature of the data collection. One alternative explanation for the marked sex difference in Darwin Award winners is that there is some kind of selection bias. Women may be more likely to nominate men for a Darwin Award, or there may be some selection bias within the Darwin Awards Committee. In addition, there may be some kind of reporting bias. Idiotic male candidates may be more newsworthy than idiotic female Darwin Award candidates.

Despite these limitations there can be little doubt that Darwin Award winners seem to make little or no real assessment of the risk or attempt at risk management. They just do it anyway. In some cases, the intelligence of the award winner may be questioned. For example, the office workers watching a construction worker demolishing a car park in the adjacent lot must have wondered about the man's intelligence. After two days of office speculation—how does he plan to remove the final support to crash the car park down safely?—they discovered, on the third day, that he didn't have a plan. The concrete platform collapsed, crushing him to death and flattening his mini-excavator.

In addition, alcohol may play an important part in many of the events leading to a Darwin Award. It is conceivable that the sex difference is attributable to sociobehavioural differences in alcohol use. Anecdotal data support the hypothesis that alcohol makes men feel “bulletproof” after a few drinks, and it would be naïve to rule this out. For example, the three men who played a variation on Russian roulette alternately taking shots of alcohol and then stamping on an unexploded Cambodian land mine. (Spoiler alert: the mine eventually exploded, demolishing the bar and killing all three men.) Unfortunately the data on alcohol consumption are incomplete and do not permit testing for sex differences after adjustment for differences in alcohol consumption between the sexes.

While MIT provides a parsimonious explanation of differences in idiotic behaviour and may underlie sex differences in other risk seeking behaviours, it is puzzling that males are willing to take such unnecessary risks—simply as a rite of passage, in pursuit of male social esteem, or solely in exchange for “bragging rights.” Northcutt invokes a group selectionist, “survival of the species” argument, with individuals selflessly removing themselves from the gene pool. We believe this view to be flawed, but we do think this phenomenon probably deserves an evolutionary explanation. Presumably, idiotic behaviour confers some, as yet unidentified, selective advantage on those who do not become its casualties. Until MIT gives us a full and satisfactory explanation of idiotic male behaviour, hospital emergency departments will continue to pick up the pieces, often literally.

We believe MIT deserves further investigation, and, with the festive season upon us, we intend to follow up with observational field studies and an experimental study—males and females, with and without alcohol—in a semi-naturalistic Christmas party setting.



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2. Explain importance
3. **Relate findings**
4. Limitations & Alternate explanations
5. Take-home message

- Relate the findings to previous studies
- Are references relevant and comparable?
- Are the claims greater than the results?



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4. **Limitations & Alternate explanations**
5. Take-home message

- Are limitations stated?
- Are the authors aware of any limitations?
- Can you think of any?
- Is future research suggested?



*“Don’t let the perfect be the
enemy of the good”*



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- Are the limitations 'fatal'?



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- Is there a clear conclusion?
- What knowledge have we gained?
- Is it useful?
- Can we build on it?



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3. Summary

We want to see...

- An accurate statement of major results
- Meaning, relevance and importance of the results
- Comparisons to similar studies
- Alternative explanations of the findings
- Limitations to the study
- Suggestions for future research



We do not want to see...

- Statements of data
- Over-statement of the importance of findings
- Unwarranted speculation
- Conclusions that are not supported by the data
- Issues not directly related to the research

