

Paper Discussions

General advice to all participants:

- Note the major objectives of the study and after you have finished critically evaluating the paper determine whether these objectives were met.
- Note and distinguish between major/minor flaws of the research.
- Consider the experimental design and the statistical techniques employed (e.g., replication, sample size, biological realism of the treatments, etc.).
- Determine whether the hypotheses that were tested were valid tests of the stated null hypotheses.
- Judge whether the presentation of results accurately represents what data actually say. Ask yourself, “Am I convinced by the story the authors created based on the data? Have the authors taken too much latitude in interpreting their data?” (Note: the data and the story authors create based on data don’t always come to the same happy ending.)
- Look for points that were glossed over or were buried that should have been more fully presented or developed.
- Identify what the next step in the research program should be.
- Ask yourself “What didn’t I understand about this paper?” A lot of what is learned in seminar discussions originates from discussion of the grey areas of our understanding of the research.
- Try to identify reasons for the above: (1) poor writing and explanations; (2) incomplete description of methodologies; (3) unfamiliar experimental and/or statistical techniques.

Advice for presenters:

- A brief introduction, history, or context of the work is good, but limit introductory comments to a few minutes.
- Make a summary or outline of the paper and use this to guide your presentation where necessary.
- Be fair to the author’s arguments. Present the author’s position first before providing any counter-arguments to their claims.
- Discuss why the paper is important in a larger scientific context.
- Be thoroughly familiar with the paper (this will require multiple readings of the paper)
- Be prepared to initiate and direct the discussion; engage your peers.
- Read the paper as if reviewing it for a journal. Think about what is new, what is good, what is bad, and what sort of errors there are.
- If the discussion begins to leave the topics you are discussing, or if you feel the need to move to other aspects of the paper, don’t hesitate to redirect the attention of the class.
- Be prepared to support your arguments. You may need to consult additional, outside readings for opposing views or to clarify points made in the assigned readings

Advice for non-presenters

- Read the paper well in advance of class. (Note: glossing over a paper is not a substitute for reading it.)
- Read the paper more than once, separated in time by one-two days
- While reading the paper write down your comments for discussion, (e.g., questions, insights, or clarifications needed) and bring them to class.
- Do not wait until class begins to look for something to talk about.