

WHAT MAKES FOR RATIONAL EXTENSION CONVERSATIONS?



Having meaningful conversations is critical for progress in any field. This requires critical thinking. D. Alagu Niranjan writes on some common fallacies that hamper good conversations in the extension discipline, based on his personal experience.

CONTEXT

What could inspire an extension researcher to write on “rational” extension conversations? Maybe a WhatsApp group full of extension academicians arguing with each other, or a casual chat with co-workers or friends, or perhaps both. Rational conversations happen only when the participants can think rationally without biases and argue without committing logical fallacies. In short, the participant should be a critical thinker.



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WHY IS CRITICAL THINKING IMPORTANT FOR EXTENSIONISTS?

Critical thinking is important not only for extension academicians but also for extension practitioners, as both work with human subjects. An extension practitioner performs advisory, advocacy, facilitation, education, capacity development, networking, mobilization, and group formation activities. All these activities aim at enhancing the decision-making ability of the clientele, so that they make good decisions. Good decisions need critical thinking. Since it is the job of the extension practitioner to instill critical thinking in clients, the practitioner must be endowed with that skill as well.

CRITICAL THINKING AND ITS VIRTUES

Norris and Ennis (1989) define critical thinking as "reasonable and reflective thinking focused on deciding what to do or believe". According to Pascarella and Terenzini (1991), critical thinking is an individual's ability to identify central issues and assumptions in an argument, recognize important relationships, make correct inferences from data, deduce conclusions from information or data provided, interpret whether conclusions are warranted based on the data given, and evaluate evidence or authority. To be a better critical thinker, an individual should have some important virtues/traits.

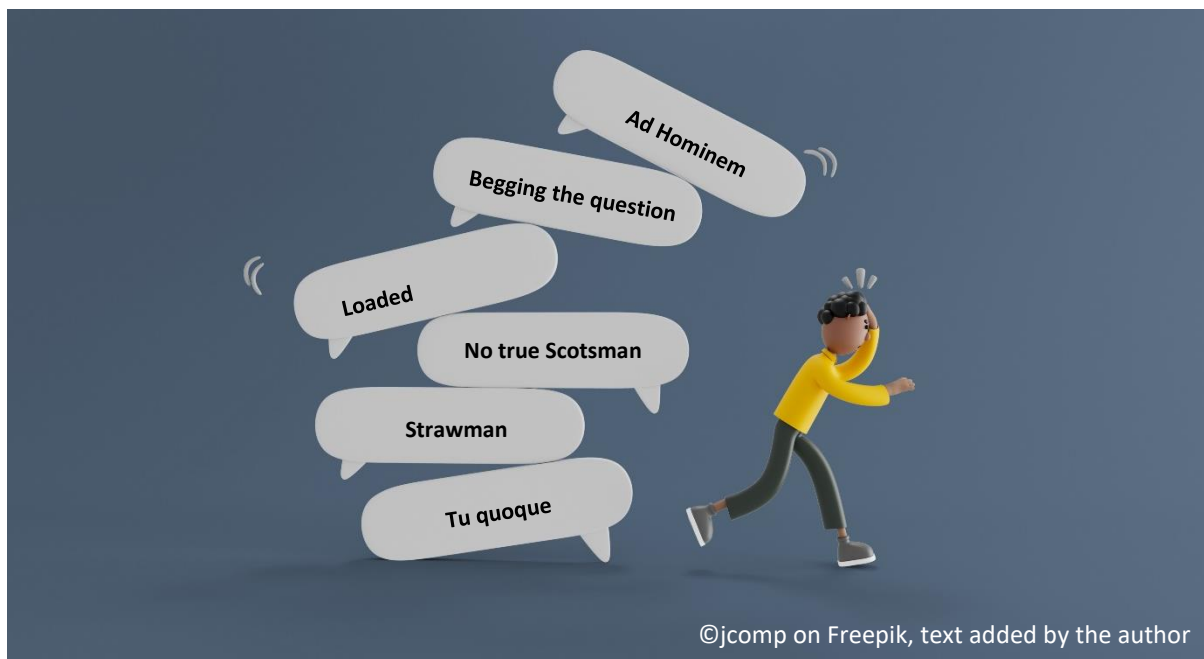


The American Philosophical Association (1990) identified 15 virtues of a critical thinker: habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit.

A detailed account of critical thinking and its integration in extension programs can be found in a five-part series on integrating critical thinking in extension programs by Alexa J. Lamm and Ricky Telg (<https://edis.ifas.ufl.edu/publication/wc206>). This blog focuses on fallacies, one of the barriers to critical thinking.

BIASES AND FALLACIES

Both biases and fallacies are barriers to critical thinking as they inhibit right decision making and argumentation. But they are not the same. The distinction between a cognitive bias and a logical fallacy is that cognitive biases are rooted in the way the brain actually works, whereas logical fallacies are errors made in an argument with the sole purpose of winning or displaying an upper hand in the conversation. A person who is sensitive to cognitive biases may also commit a fallacy in arguments while making his or her point. One can be trained to avoid logical fallacies, but cognitive biases are trickier. Here, the common fallacies (non-exhaustive) that extensionists should avoid in their arguments are presented in order to sensitize them. An extensionist might have committed any one of the following fallacies or might have encountered them in conversations. Knowing fallacies will help extensionists avoid using them in their arguments and also to spot them in the other person's argument.



Logical fallacies tailgating rationality

1. **Ad Hominem:** Instead of attacking the argument, attack the person.
 - **Example:** The so-called liberals destroyed extension discipline in the name of curriculum refinement.
 - **Explanation:** Here, the arguer could not argue on the merits and limitations of the new extension curricula; hence, the attack on the designers of the curriculum.
2. **Ambiguity (equivocation):** Using double meaning or unclear description.
 - **Example:** Some farmers are poor adopters of innovations. I wonder why extensionists expect poor farmers to adopt costly innovations.
 - **Explanation:** This statement misleads the listener by invoking two different meanings of the word "poor" in the arguments.
3. **Anecdotal/hasty generalization:** Using one's personal experience or an isolated example as evidence.
 - **Example:** 1) I visited the agricultural extension office last week and observed that no one was working for the farmers. So, extension officers don't work for the farmers. 2) My batchmate from the extension discipline at the university filled out his survey forms from the hostel; so, extension students do not do proper research.

- **Explanation:** In both cases, one's personal experience is used as evidence for the claim.
4. **Appeal to authority:** Using source credibility to strengthen an argument.
 - **Example:** The evolution of extension need not be studied in the changing global landscape because Dr. K.N. Singh, who is the father of agricultural extension, did not envision extension this way.
 - **Explanation:** Instead of explaining why extension's evolution should not be studied in the changing global landscape, this argument appeals to the authority of Dr. K.N. Singh to reject the discussion.
 5. **Appeal to emotion:** Making claims based on emotion or sympathy, not based on logic.
 - **Example:** The government should create more jobs for extension graduates. If it doesn't, many graduates will be unemployed and suffer.
 - **Explanation:** Instead of arguing why the government should create more jobs in the extension discipline, the argument appeals to emotions by invoking unemployment and suffering.
 6. **Appeal to tradition:** Claiming that something practiced for ages is true or the best.
 - **Example:** Extension work is traditionally carried out by public institutions in India. Therefore, public extension workers are better than extension workers from NGOs and private companies.
 - **Explanation:** This argument ignores the present state of pluralistic extension work in India and claims public extension workers are the best only because they have been doing the work traditionally.
 7. **Appeal to nature:** Mentioning that something that occurs naturally (often spontaneously) is true.
 - **Example:** Female farmers should take care of their children and home rather than taking decisions on the farm because women are natural caretakers than decision-makers.
 - **Explanation:** This argument rejects decision-making by women on the farm by appealing to the motherhood role of female farmers.
 8. **Appeal to popularity (bandwagon):** Using popularity to support an argument.
 - **Example:** No other theory explains innovation diffusion better than Roger's Theory of Diffusion of Innovation because it is the most referred theory in extension research works.
 - **Explanation:** The argument uses the popularity of Roger's theory as a strength rather than its actual content.
 9. **Burden of proof:** Making the opponent prove or disprove your argument.
 - **Example:** Person 1: He got this project because of his friendship with the director. Person 2: Do you have proof for this? Person 1: Can you prove that it isn't due to the friendship?
 - **Explanation:** The one who associates project approval with friendship with the director does not provide evidence. Instead, he asks the other person to disprove it.
 10. **Circular reasoning (begging the question):** Occurs when one's reasoning begins with a claim they are trying to conclude with.
 - **Example:** Policymakers should use this important research finding because it has important policy implications.

- **Explanation:** Instead of saying which results have policy implications, this argument claims the presence of policy implications in the premise itself.
11. **Fallacy fallacy:** Based on false claims, but is logically coherent.
- **Example:** Overusing the Theory of Innovation Diffusion in extension research is fallacious because it appeals to popularity. Therefore, I will not use it in my innovation research.
 - **Explanation:** Though this statement seems logically correct, it is fallacious because the popularity of the theory should not be a criterion for not using it in a study, that too related to innovation.
12. **Fallacy of composition and division:** Assuming one part of something will apply to the whole or that the whole must apply to all the parts.
- **Example:** 1. I met an IPR researcher from NDRI. So, NDRI must be doing great IPR research (composition). 2. Kerala is a highly literate state. Tomorrow, I am interviewing a person from Kerala; she must be literate (division).
 - **Explanation:** 1. Assuming NDRI is doing great IPR research based on meeting a single researcher is fallacious (composition). 2. Similarly, expecting a person from Kerala to be literate based on the state's literacy status is fallacious (division).
13. **False cause and attribution:** Correlation is causation; appealing to irrelevant, biased or unqualified information.
- **Example:** 1. Women farmers cook food for the whole family. So, they must be healthier than male farmers (false cause). 2. This PhD scholar is not completing her PhD because she has a fellowship (false attribution).
 - **Explanation:** 1. Women farmers cook food for the whole family because it is a gender role imposed on them. Their cooking food does not ensure that they consume it and are healthier than the male farmers. 2. The PhD scholar may have any number of reasons for the delay in PhD completion, but attributing it to a single reason (fellowship) is fallacious.
14. **False dilemma/dichotomy:** Presenting two alternatives as the only possibilities.
- **Example:** As you have enrolled in a PhD in Extension, you should either become a scientist or an assistant professor.
 - **Explanation:** This statement argues as if only two career options are available for one with a PhD in Extension.
15. **Gambler's fallacy:** Assuming that separate and independent events can affect the likelihood of another random event or that if something happens often it is less likely to occur in the future.
- **Example:** I always win on my third attempt. This is my third project proposal after two consecutive failures, and this is going to get approved.
 - **Explanation:** Winning a project proposal is an independent event that depends on various factors. Clearly, the sequence has nothing to do with the approval of a proposal.
16. **Genetic fallacy:** Judging the information based on the arguer's origin and not based on the argument itself.
- **Example:** These results come from a study conducted by extension scientists. Extension scientists do not conduct good studies. So, we cannot accept these results.

- **Explanation:** Instead of finding the merits and limitations of the results, the results are rejected because the study was carried out by extension scientists.
17. **Loaded question:** Asking a question that presupposes a claim so that it cannot be answered to without sounding guilty.
- **Example:** Are you still plagiarizing? When did you stop reporting false data? How does it feel taking home a salary without doing any work?
 - **Explanation:** These questions cannot be answered without admitting to plagiarizing, reporting of false data and taking a salary without working.
18. **Middle ground:** A compromise between two extremes must be reached to satisfy a situation.
- **Example:** According to person 1, climate change is happening right now. According to person 2, climate change is not happening. According to person 3, climate change must be happening intermittently.
 - **Explanation:** Instead of arguing about the evidence each party presents, the third person finds a middle ground, which is fallacious.
19. **No true Scotsman:** Appeals to the purity of an ideal as a way to dismiss relevant criticisms or flaws in your argument.
- **Example:** A good extension professional would never work for rich farmers. True extension professionals would only work for poor farmers.
 - **Explanation:** This argument assumes extension work is only for poor farmers, and that rich farmers do not need extension support. Then, the arguer states that those who work with rich farmers are not good extension professionals, which is fallacious.
20. **Personal incredulity:** Occurs when one finds a concept difficult to understand and goes on to conclude that it is likely to be untrue.
- **Example:** The policy course in the new extension syllabus is very difficult to understand for an experienced extension professor like me. How can a student understand it? Therefore, this policy course is useless.
 - **Explanation:** Just because the professor can't understand the contents of the course, he rejects the whole course as useless.
21. **Red herring:** Focuses on arguing on an irrelevant topic to distract the audience; usually happens when the orator finds another topic easier to outline.
- **Example:** I might not have submitted the report on time, but I never came late to the office.
 - **Explanation:** The argument is about the submission of the report, not about office punctuality which is used as a distracting strategy and an easy topic to discuss compared to report submission.
22. **Slippery slope:** If A were to happen, then B will eventually occur. So, A should be stopped or happen.
- **Example:** If you are choosing a PhD and not studying for ARS, you will never get a job and will always remain a burden to your parents.
 - **Explanation:** This argument presents a chain of events, starting from choosing a PhD to being a burden to parents. And it assumes that these events happen in sequence and are true.
23. **Special pleading:** Ignoring certain elements that are unhelpful to one's claims or asking for special considerations.

CONCLUSION

Extensionists often make fallacious arguments in seminars, conferences, classrooms, fieldwork interactions, research proposals, research papers, and even in informal WhatsApp conversations. These fallacies are committed due to two reasons: The lack of critical thinking and the intention to manipulate and win an argument or make a point. Either of these are detrimental to the advancement of science and extension work. Following are a few ways in which one can enhance critical thinking:

1. Be curious and ask more questions (always remember to use 4 Ws and 1 H).
2. Be well-informed through active reading and listening (you need not have an opinion and speak on everything; sometimes read, listen and think).
3. Be open to different perspectives.
4. Beware of biases and fallacies and avoid them.
5. Do not adopt anything from others without examining it (remember the Tamil *Thirukkural* No. 423 which says, “*Though things diverse from divers sages' lips we learn, 'Tis wisdom's part in each the true thing to discern*”, meaning that the ability to discern the truth in everything, by whomsoever spoken, is wisdom).

Readers are encouraged to share their experiences with and examples of fallacious arguments in the comment section below.

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