Rethinking the Concept of Fallacies in Argumentation Instruction

Guy Smith
English for Liberal Arts Program
International Christian University

Abstract

Traditionally in critical thinking and argumentation instructional approaches groups of general argument patterns have often been listed and taught as fallacies, for example ad-hominem, slippery slope, and black and white. The definition of a fallacy is that it represents a general argument that applies invalid or faulty reasoning. However, the implication of listing groups of argument patterns as fallacies is that the problem with the argument is seen to be in the inherent form of the argument. Previous work, however, has pointed out that it is not the form but the content, the weakness or strength of the claim itself and the perspective being brought to the claim that determines the reasonableness or appropriateness of the claim, or whether it may display invalid or faulty reasoning. Building upon this body of work and my own experience, I develop a position arguing against using a traditional approach of instruction that describes groups of argumentative patterns as fallacies due to their inherent form. I also argue that the traditional approach has some potentially serious drawbacks for student attitudes and critical thinking dispositions. Finally, an alternative approach for how these argument patterns could be used as teaching materials that reflect a more real-world oriented paradigm is discussed.

At International Christian University (ICU) in Tokyo, traditionally a portion of the spring term of the English for Liberal Arts (ELA) Academic Reading and Writing program (ARW) has been devoted specifically to developing a deeper understanding of argumentation and critical thinking. This time has been dedicated to learning about, exploring, and applying general argumentative principles and elements of critical thinking. The content of this has been largely decided by the individual teacher but typically includes elements such as addressing assumptions, understanding rhetorical appeals especially logos and ethos, and the role of counterarguments in building a position. Fallacies have also been commonly used as part of the ELA argumentation instruction following the general practice of including sections on fallacies often found in textbooks on argumentation and critical thinking.

A broad definition of a fallacy is that they are groups of arguments that display faulty or invalid reasoning. In critical thinking textbooks, lists of fallacies commonly include the post hoc, ad hominem, argument from ignorance, genetic, naturalistic, and strawman fallacies. *The Little, Brown Compact Handbook* (LBH) which was used as a common textbook in the ELA program by all students until 2017 describes fallacies as, "Fallacies - errors in argument - either evade the issue of the argument or treat the argument as if it were much simpler than it is" (Aaron, 2012, p. 110). Fallacies are also conventionally put into general groups. For example, in the book *Critical Thinking* fallacies are described as, "a

flawed general type of argument that establishes a faulty connection between premises and conclusion" (Chatfield, 2018, p. 173).

After the discontinued use of the LBH in the ELA, a new argumentation resource was put together that also contained a module on fallacies. This fallacy module was based on materials that had been developed by and shared among ELA teachers and was passed on to new teachers. The general pattern of the resource was to define the fallacies, look at examples, and then identify the fallacies in arguments. Thus, we can say that in the ELA the practice of teaching fallacies as part of learning about argumentation has been considered generally common practice, time has been allocated to this in the syllabus, and a range of materials have been available. Furthermore, looking at the teaching materials and considering the previous use of the LBH as a common textbook, the teaching of fallacies in the ELA has been generally influenced by the traditional perspective of fallacies as faulty or invalid arguments and grouped into lists (such as the slippery slope and ad-hominem fallacies). But, might there be a better way to view and teach these so-called fallacies?

I now believe that the traditional approach of giving students lists of argument patterns under the title of fallacies, and that are said to be inherently invalid or faulty in form, is arguably not the best way to educate students in effective argumentation. It seems likely that this traditional approach will confuse students, make them more judgmental, and weaken their ability to evaluate arguments. As a starting point for this discussion, I would like to look at my own change in perspective; that it is not the specific form, e.g., black and white, that is inherently faulty or invalid but instead the content of each discrete claim that needs to be examined for appropriateness or reasonableness. I will then look at some other studies indicating a similar conclusion.

First Steps Towards a New Perspective

In one of my classes on argumentation, an ARW student asked me about fallacies. The question went something like this, "So, if I add evidence to or expand on, these weak arguments, these fallacies, then, now, they would be okay?" I replied that adding a source or updating the claim with some other kind of reasonable support, or context, would add confirmatory power and appropriateness and therefore often transform a "faulty" argument into a "reasonable" one. The student nodded, and accepted my answer.

However, was my answer a good one? I found myself thinking about the implications of this question more and more. Was a fallacy magically transformed into a reasonable argument if there was evidence, or good reasons, or context? Who decided when a fallacy underwent such a transformation and what was involved in the transformation to make it a reasonable or intelligent position? Was simply labelling arguments as fallacies, even seemingly unfounded claims, without considering context and audience really a good way to approach fair argumentation?

I had to overcome some personal resistance in revising my views on this. Prior to joining the ELA, I had not taught fallacies but I had been teaching them for a number of years in ARW courses. Influenced by the LBH and common ELA materials, I had been approaching teaching fallacies the traditional way, i.e., distribute lists of fallacies, learn about the main fallacies, then practice identifying and labeling fallacies in an argument, e.g. as a black and white fallacy. My first reaction in defense of fallacies was that it was useful to understand what makes a weak or illogical argument. This improved ability to spot faulty or invalid reasoning is a reason typically given in textbooks as a purpose to learn fallacies (Boudry, Paglieri & Pigliucci, 2015). My assumption was that, when students spotted them in

real-life situations, they could "call them out". They could also take steps to avoid them in their own reasoning and construction of spoken and written arguments.

However, the more I thought about this, examined the literature and explored historical and recent developments in approaches to argumentation, fallacies, and persuasion, the less convinced of the actuality of my previous beliefs I became.

Some Examples to Consider the Content Over Form Perspective

Firstly, often so-called fallacies can appear in real life as perfectly viable and readily accepted arguments and claims. For example, the "black and white" fallacy refers to a situation in which the argument tries to force a choice between two options when a third may be viable. "You are either with us or against us!" How many times can this be heard in movies or TV dramas? Or something similar, "Save yourself or save the (insert child, wife, friend etc.)". This is often accepted by the audience as a perfectly appropriate argument depending on the context, even when there are other apparently viable options and the movie itself often provides them by allowing both the heroine and (child, husband, friend) to survive. Another real-life example is when a doctor tells a patient that they have to either cut down on sugar or face a real danger of developing diabetes. While there could be conceivable alternatives to these two options, it seems that in the context of the expert opinion this black and white claim would be generally accepted. Thus, it seemed to me that the black and white claim can be on one hand a perfectly acceptable argumentative move that in certain contexts would not be labeled as inappropriate, while plainly in others it could be an oversimplification and inappropriate. Is it justified to assert that black and white itself as a form is an invalid argument or rather that the context, viewpoint, and audience will determine whether or not the claim is unreasonable? It seems prudent to be more cautious and explore the reasonableness or otherwise of each black and white claim in its context and function in appealing to a specific audience or performing a purpose.

Following are some of the examples that have been used to introduce and explain fallacies to ARW students. These were part of common resources used in the ELA and given to new teachers. I would like to look at whether it seems to be the form itself which is the inherent flaw or whether it could be the content which can be identified as being invalid or faulty. The first example is a fallacy described as a "sharpshooter" fallacy.

> I think abortion is wrong so I am going to look for statistics that show how dangerous it is.

On the face of this claim without any context, it seems reasonable to describe this as a fallacy. Looking at and selecting only one side of the evidence appears wrong and biased. However, people commonly construct arguments this way in real life all the time. A parent looks up some data to support an opinion given to their children. An expert produces evidence to support one side of the issue in a TV debate. A writer goes back to their article to add some extra supporting evidence after they have largely developed their claim. Two friends argue a point in a discussion and one of them accesses the Internet to provide some evidence to support their preferred claim.

Sharpshooting plays such an important part of everyday life that to describe the form itself as a fallacy is to not recognize real-world interaction. In some evolutionary psychology viewpoints, this bias to have a preference to look for and select information that supports one side of an issue, has been argued for as a constructive force in discussion (Mercier & Sperber,

2017). In fact, we often specifically practice sharpshooting as a skill in debates. A debate is generally a competition for the pro/con teams to find and present the strongest evidence maintaining one side of an argument or attacking the other. The best sharpshooter usually wins. In different contexts, sharpshooting can have good and bad intentions and good and bad outcomes. This would imply that in a similar way to the black and white argument pattern already discussed, it is not the form but rather the specific content of each sharpshooter context that needs to be examined for appropriateness, or faulty and invalid reasoning.

Finally, this is another claim from an ARW resource used to demonstrate a fallacy in that the premise does not logically imply the conclusion.

a) She can't be very intelligent because the university she attended is not so prestigious.

The fallacy perspective has been altered to look from a different angle.

b) She must be very intelligent, because she attended a prestigious university.

The above forms of the claims are the same.
Claim A) She must not be intelligent – because she went to A school
Claim B) She must be intelligent – because she went to B school

For both of these statements, we could imagine falsifying arguments. For example, she might be very academically smart but want to take classes from teacher X at A school. Or, she may not be that academically smart but was quite lucky on the entrance test, she guessed a number of the answers and was by chance correct and gained entrance to B school.

Our initial reaction with Claim A is that we are uncomfortable because of the hurtful and potentially unfair implications of the claim. We do not feel morally comfortable calling people unintelligent because of the school they went to. All kinds of particular factors might be behind the reason the person went to the school. On the other hand, we do not have any special discomfort with Claim B which reflects a positive moral claim. Describing people as intelligent does not contain the problematic moral position for us that emerges in Claim A. Thus, we feel that Claim A is a fallacy; however, we would be less firm in also identifying Claim B as a fallacy. This shows again that it appears to be the content and what the reader/listener brings to the content that influences whether the claim is considered faulty or invalid, and not the form itself.

This examination raised some confusing questions for me about fallacies. Does a fallacy depend on whether it reflects a majority opinion? Does it depend on context? Does it depend on the moral implications of the words themselves? Does it rest on a subjective decision about whether the premises of a statement fit or agree with one's personal beliefs, culture, opinions, experiences, knowledge, or preferences?

I am not an expert in the field of argumentation; however, it seemed to me that I was able to come up with examples that appeared to, at the least, question the idea that we can designate groups of certain argument patterns as fallacies. It also seemed to me that labeling claims as fallacies may occur when there is some personal or social investment in calling something wrong.

As I continued my research on the area, it led me to some thorough and comprehensive criticisms of the traditional view of fallacies by experts in the field which will be reviewed in the next section.

Previous Research on the Nature of Fallacies

In their 2015 paper, Boudry, Paglieri, and Pigliucci comment, "Interestingly, although the standard view of fallacies as defective inferences is still predominant in the popular literature, argumentation theories have moved beyond it already several decades ago" (2015, p. 432). Further, the online Stanford Encyclopedia of Philosophy comprehensively reviews the historical back and forth on the difficulty of clearly defining a fallacy. It concludes that the current situation is still an uncertain one in that, "A question that continues to dog fallacy theory is how we are to conceive of fallacies". This would suggest that, firstly, fallacies are still popularly viewed as faulty or invalid arguments despite the move away from this in the field of argumentation and, secondly, that there is still much disagreement about how to even define a fallacy.

Boudry, Paglieri and Pigliucci look at a range of well-known fallacies and discuss the problems found in labelling such sets of arguments as fallacies in the traditional sense as being flawed arguments (2015). They examine closely commonly taught fallacies including the post hoc, ad hominem, argument from ignorance, genetic, naturalistic, and strawman fallacies. Their observation was that in real life, "the strength of the arguments instantiating the scheme will depend on a host of contextual factors that are not captured by the scheme itself" (p. 435). On paper, a claim may seem to be a fallacy; however, when placed in a real-life context, it now seems to be no longer invalid. Or, we can find nuanced claims from real life that fit the fallacy scheme but are patently reasonable or appropriate arguments. They provide a large range of examples in their paper. They further quote other research in the field of argumentation, "Research in the pragmatics of argumentation, reasoning heuristics and ecological rationality has shown that almost every known type of fallacy (both formal and informal) is closely related to forms of reasoning that are acceptable moves in a debate" (p. 434). Hahn and Oaksford found a similar outcome regarding the ambiguous nature of the fallacies, commenting that an "analysis reveals that these 'fallacies' may be best regarded as everyday informal argument forms that can be differentially strong dependent on their content" (2007, p. 725).

These sources point out that it is questionable to designate inherent argument patterns as faulty or invalid, and rather that it is the content of each claim that needs to be examined for invalid or faulty reasoning.

The Possibility that We are Confusing and Polarizing Our Students

If we accept the line of argument so far, then we can speculate that teachers may be confronted by three problems that stem from the teaching of fallacies in the traditional sense i.e., as groups of arguments that are invalid or faulty. The three potential problems are summarized below.

a) Students may be confused about seeing apparently obvious fallacies on paper but then finding them as valid arguments in certain contexts in the real world.
b) By slightly changing the perspective, even though the form of the claim matches a designated fallacy, it no longer seems to be fallacious.
c) There is a concern that minority or marginalized positions are not taken seriously and engaged with, and are instead dismissed and labelled as fallacies because they do not fit a certain individual, societal, or cultural perspective.

Implications for the Classroom

In relation to the unresolved problems regarding the nature of fallacies and practical classroom considerations, the online Stanford Encyclopedia of Philosophy comments, "Another consideration about the value of the fallacies approach to teaching good reasoning is that it tends to make students overly critical and lead them to see fallacies where there are not any". At the end of their paper investigating fallacies, Boudry, Paglieri, and Pigliucci, give some useful direction for what could be a better goal for fallacies in the teaching of argumentation. They state, "What if the notion of fallacy, instead of being wielded like a sword of judgment against opponents, was used for more amicable purposes, e.g., suggesting ways to clarify arguments that, without being necessarily flawed, stand in need of substantial elaboration?" (2015, p. 452).

I thought that this sounded like a practical and valuable goal to rethink the role of my use of fallacies in teaching argumentation in the ELA. Teaching students to find and label fallacies seems to be missing something important in real-world argument analysis. Rather it would be more realistic to look at each individual claim separately and on its own merits (or lack of), and examine the context and intentions of the writer or speaker, the perspectives, and the implications.

Some Thoughts on More Effective Ways to Use Fallacies in Teaching Argumentation

The argument patterns that have been labelled as fallacies do provide useful frameworks for analyzing and talking about arguments, and are an important part of Western thought and critical thinking that it would be useful for students of English to have knowledge of. If the teacher uses them and introduces them as patterns of arguments, rather than as fallacies, there may be many useful applications of these argument patterns to develop better argumentation skills.

In order to more effectively teach argumentation, I think we need to look at some ways that real-world argumentation skills can be applied. Firstly, being able to spot a weak or unsubstantiated claim, or a claim that is not well supported or inappropriate is important for effective critical thinking skills. This is what spotting and avoiding so-called fallacies typically aims to do but there may be more effective approaches. Moreover, when building an argument, being able to present nuanced and believable claims is important for connecting with a critical and intelligent audience. The fallacy patterns themselves make up very convenient groupings of arguments that lend themselves to classroom instruction and could be used without presenting the forms themselves as faulty or invalid. I suggest one approach teachers could try would be to look at how an argument pattern can gradually become more or less nuanced and reasonable.

Teachers could look at various gradations of, for example, ad-hominem patterns starting from strong claims at one end to more nuanced and persuasive forms of the same argument pattern at the other end. Students could look at the gradations and decide when they felt it was now a reasonable and appropriate claim and when it was not. As students bring different values, knowledge, experience, and beliefs to the classroom teachers can expect some differences in this leading to discussions of why students thought the claim was reasonable at this point but not at this point. Below is an example of a task presenting several ad-hominem patterns that students could look at and decide at what stage it was presenting a reasonable and acceptable claim and when it was not.

Task
Ad-hominem pattern or claims attacking the person – look at a, b, c, d, and e below. At what point do you think the claim could be reasonable and appropriate?
a) X is paid by the ABCD institute and does whatever they tell him to do. His opinion is complete rubbish. He is not trustworthy and nothing but a biased mouthpiece.
b) X is a member of the ABCD institute, therefore it follows that his opinion is biased and he is not trustworthy on this issue.
c) X is a member of the ABCD institute, his opinion is not unbiased and he has been known to show some tendency to selectively ignore the facts regarding the issue in the past.
d) X is a member of the ABCD institute, therefore it is not completely implausible that his opinions and views are to some extent biased by his research done for the institute.
e) X has published research for the ABCD institute and is known for his personal support of the ABCD institute's mission, which means that his integrity on this issue and his opinions on this issue are at the least, open to more question and debate.

All of the above arguments make an attack on the person in some form, but at some stage most people will feel the argument was to some extent reasonable. Exploring the nuance of arguments and debating the line of when the argument is a reasonable claim is an extremely useful real-world skill that ELA students would benefit from. The extent to which an argument is reasonable and appropriate can be seen being debated in talk shows, news interviews, and on YouTube in exchanges on various topics by diverse groups of people.

This kind of task introducing patterns of arguments with gradations of nuance could be done for just ten or fifteen minutes at the start of class for four of five classes. If teachers have time and want to go further, then students can be introduced to a less passive and more active task. This can be done by giving them a claim at one end of the scale and then asking them to revise the claim to make it more, or less, nuanced and reasonable. Students can share these with class members leading to dialogues looking at how other class members took measures to adjust the argument strength or reasonableness. Teachers could then go one step further and demonstrate some useful techniques, approaches, and language for doing this.

Conclusion

In summary, I have argued that presenting groups of arguments and describing them as fallacies and thus being faulty or invalid arguments potentially raises some problematic issues for teachers and students. Studies and articles have demonstrated via many examples and analysis that it is the content and not the form that decides the appropriateness or inappropriateness of the claim. By presenting the fallacies in the traditional style as faulty or invalid arguments, teachers run the risk of seeing some unwanted outcomes in student thinking. Students may be confused by seeing the fallacies being used as valid and effective claims in real world contexts and that slight changes to fallacies can result in claims sounding reasonable. Students may also fall into the trap of labeling personally objectionable claims as fallacies.

Through training, students can be encouraged to look at discrete arguments and evaluate these arguments on their own merits in specific contexts and aimed at specific audiences. In real-world arguments, understanding and negotiating the line of when a claim is reasonable and appropriate and when it is not is a skill that is useful in a wide range of situations. Practice of this skill promises to be of value to students in becoming more sensitive to and engaged with differing points of view to their own.

Acknowledgements

References

Aaron, J. E. (2012). *The little, brown compact handbook*. Pearson/Longman

Boudry, M., Paglieri, F., & Pigliucci, M. (2015). The fake, the flimsy, and the fallacious: Demarcating arguments in real life. *Argumentation*, 29(4), 431-456.

Chatfield, T. (2018). *Critical thinking*. Sage Publishing.

Hahn, U., & Oaksford, M. (2007). The rationality of informal argumentation: A Bayesian approach to reasoning fallacies. *Psychological Review*, *114*(3), 704.

Mercier, H., & Sperber, D. (2017). *The enigma of reason*. Harvard University Press.

Stanford Encyclopedia of Philosophy. (2020). Fallacies. In *Stanford Encyclopedia of Philosophy*. Retrieved, August 27, 2021, from https://plato.stanford.edu/entries/fallacies/#DouAboFal