CHAPTER 1

Introduction to the Study of Fallaciousness

1 Strong and Weak Arguments

Arguments have a range of types and employ a diversity of devices, from those that press a historical case using causal reasoning to those that recommend an economic course of action by appealing to an authority in the field. They will be characterized by a particular structure, where one or more statements (premises) are given in support of a conclusion, and a range of intentions: to persuade an audience, to resolve a dispute, to achieve agreement in a negotiation, to recommend an action, or to complete an inquiry. Because of these different intentions, arguments arise in different contexts that are part of the argumentative situation. Arguments also have a range of strengths, from those that conform to the principles of good reasoning to those that commit some of the more abysmal errors we will be considering in this book. In between are degrees of strength and weakness. In fact, many arguments of a more extended nature will admit of merits and demerits that can make our judgment about the overall quality of the reasoning quite difficult. A 'fallacy' is a particular kind of egregious error, one that seriously undermines the power of reason in an argument

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by diverting it or screening it in some way. But a more precise definition is difficult to give and depends on a range of considerations. One famous definition of 'fallacy' that C. L. Hamblin derives from the Aristotelian tradition states: "A fallacious argument, as almost every account from Aristotle onwards tells you, is one that *seems to be valid* but *is not* so."[1] This raises three central questions about the definition: Are fallacies all and only arguments, because Hamblin's definition is strictly speaking a definition of "fallacious argument"? Are fallacies all a matter of validity, which seems to restrict matters to the relations between the parts of an argument? And are fallacies detected through their psychological effect, because if they *seem* valid they must seem so to someone?

To begin addressing these questions and considering the kinds of problematic reasoning that may be elevated (or demoted) to the status of 'fallacy' we will adopt the approach that will be standard in future chapters and explore two cases:

Case 1A

This is from a letter sent to *Scientific American* (January 2, 2002) and it concerns the so-called Lomborg affair, a controversy that erupted in major scientific publications after Bjørn Lomborg published his book *The Skeptical Environmentalist*, in which he challenged many 'orthodoxies' of the environmental movement.

In the 1970s there was a lot of excitement over two books: one theorized that our planet had been visited by friendly aliens who had helped our ancestors with all kinds of "impossible" achievements, including the building of the pyramids; another proposed paranormal explanations for the Bermuda Triangle, complete with "irrefutable" evidence. I can't remember the titles of these books or the authors' names, but I do remember watching one of them being interviewed on television. Although the interviewer was definitely hostile, the author

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[1] Charles L. Hamblin, *Fallacies* (London: Methuen, 1970), p. 12.

remained confident and self-assured. After 15 minutes or so of well-informed questioning, however, the interviewer had effectively boxed his guest into a corner. At which point the still smiling, recently successful author finally stated, "If I'd said it that way, I probably wouldn't have sold many books."

As far as Lomborg and his book go, I don't think we need look any further than the above statement. Also, growing up and going to school in Cambridge, England, I am extremely disappointed that Lomborg's book was published by Cambridge University Press. I just hope they realize how they have tarnished their reputation by publishing such a work. I think a more suitable vehicle would have been the checkout stand at the local supermarket, which thrives on misinformation and distorted facts.

While the author addresses his comments to the editor of the periodical, his audience will be the general readership. In later chapters we will want to think about the kinds of beliefs and expectations audiences hold and how they may be predisposed to receive or challenge the ideas presented to them. Here we are primarily interested in the position or thesis that the author is promoting and the case he is making for it, because it is in the case that we see a strategy of argument being employed.

Clearly, the writer is antagonistic toward Lomborg's book. He is dismissing its merit as a serious work, judging it rather as a sensationalistic book. He makes this point implicitly rather than explicitly by associating it with two earlier sensationalistic books that made claims about aliens and the Bermuda Triangle. So the case for dismissing Lomborg's work involves associating it with two works that have already been dismissed. They have been judged, we might say, as "guilty" of being nonserious, unscientific work, and the present writer's strategy is to transfer this guilt to Lomborg and his book. Now, sometimes associations do exist and what holds for some partners in an association can be reasonably transferred to others. But we must be given reasons for believing both that an association exists and that a transfer of guilt is relevant. In this

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argument, no such attempt is made. Thus, the reasoning is weak and the conclusion is not supported. Moreover, in this case we have an identifiable strategy of argument that analysts have judged to be fallacious. The fallacy in question is Guilt by Association. You can see further that the same strategy is employed in the second paragraph. This time the claim is made that Cambridge University Press has tarnished their reputation. But the support for this is the transfer of guilt from the association with Lomborg's book. This time, the association clearly exists, but since the previous guilt was never established, there is nothing to transfer.

Case 1B

This is a letter to the Canadian newspaper *Globe and Mail* (June 19, 2003, p. A16) that contributes to the debate over same-sex marriage in Canada:

The liberal government plans to endorse same-sex marriage based on a lower-court ruling in Ontario (Ottawa Backs Gay Marriage – June 18). Once it does, the well-defined definition of traditional marriage in Canada will be forever altered.

   If we allow people to marry without regard to their sex, who is to say that we can't discriminate on the basis of number? It is a small step then to legalizing polygamy.

   Once we open up marriage beyond the boundary of one man and one woman only, there will be no difference based on the Charter of Rights and Freedoms between gay marriage and polygamous marriage. Do we want to erode our societal values based on the whims of a small minority? I hope not, and let's not abuse the Charter in this way.

There is much happening in this argument that a full analysis would identify and evaluate, but we are again interested only in the primary strategy the writer employs in opposing this government initiative. The primary reason given for not allowing same-sex couples to marry is that doing so will lead to undesirable consequences because similar cases, here polygamous marriage, would have to

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be accorded the same right. The writer believes that same-sex mar-
riage will set a precedent for legalizing polygamy. The Appeal to
Precedent[2] is another argument form that must meet strict condi-
tions in order to be legitimate. Where such conditions are not met,
we would judge the argument again to have the kind of serious
weakness that warrants the label 'fallacy'. A precedent is set only
if the cases are sufficiently analogous in relevant respects such that
what holds for one will hold for the other. One weakness in this
argument is that the writer fails to meet a burden of proof to pro-
vide the grounds for such analogical reasoning. More specifically,
relevant *dissimilarities* between the two cases tell against the belief
that legalized polygamy would have to follow. Discrimination on
the basis of sexual orientation is a specific concern of the Charter
and those involved are recognized as a historically disadvantaged
group. No such beliefs or recognition hold for polygamous relation-
ships. More significantly, legislation to permit same-sex marriage
is giving gays access to something that everyone else has a right to, a
legally recognized "traditional marriage." No advocates of polyga-
mous marriage could insist that they were being denied such rights.

These cases reveal two preliminary things about the evaluation
of fallacious arguments. In the first instance, it is not a matter of
simply applying a fallacy label to a piece of text and then moving
on. What is involved is a careful sifting of claims and meanings
against a backdrop of an ongoing debate, and within a wider con-
text. In evaluating the second example, we had to add information
to the discussion in order to appreciate the problem involved fully.
At the same time, each piece involved the employment of an identi-
fiable strategy. Or, perhaps we should say a misemployment, since

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[2] This argument is also a candidate for the fallacy called 'Slippery Slope', in which
one action is advised against because it will lead (downward) toward other unde-
sirable consequences. The 'Slippery Slope' involves a causal relationship between
cases; the 'Appeal to Precedent' involves an analogous relationship between cases.
This distinction will be discussed later in the text.

in each case the argumentative strategy could possibly have pro-
vided a fitting vehicle to make the writer's point if the appropriate
conditions had been met. Hence, as we proceed through our study
of various fallacies we will often ask whether they are the counter-
sides of legitimate argument forms, but the appropriate conditions
have simply not been met or have been specifically violated. This
will force us to be clear about what has gone wrong in each case,
and why, and whether the mistake could have been prevented. This
also begins to answer one of our earlier questions, that regarding
whether fallacies are only arguments. These examples are argu-
ments and, generally, we can see that we are interested in strategies
within argumentative discourse. So for our purposes, fallacies will
be patterns of reasoning within argumentative discourse, and these
will almost always be argument schemes or patterns themselves.
A few candidates for fallacies that are not identifiable argument
schemes or patterns will arise in the chapters ahead.

2   Some Historical Conceptions of Fallacy

Having this preliminary sense of how we might approach falla-
cious reasoning has taken us closer to understanding how the term
'fallacy' should be used. To refine this understanding further and
to appreciate some of the difficulties that arise when defining and
discussing fallacies, we will look briefly at something of the history
of this field and the controversies it has engendered.

The story really begins with Aristotle. While there was certainly
an appreciation of such mistakes in reasoning earlier, Aristotle was
the first to begin categorizing them in a systematic way, first under
the title of 'sophistical refutations', in a work of that title, and later
with a revised list in the *Rhetoric*.[3] The *Sophistical Refutations*

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[3] There is also a treatment of fallacy in the *Prior Analytics*, although scholars find
no clear doctrine there, nor much that is new. We will take note of this treatment
in Chapter 3.

provides a list of thirteen errors. To understand what he meant by a 'sophistical refutation' we need to appreciate something of the dialectical reasoning that was popular with Aristotle and his contemporaries. Many of you may be familiar with Socrates' famous way of proceeding in Plato's *Dialogues*. In search of some important definition, such as the meaning of 'courage' or 'friendship', Socrates would seek out alleged experts who could provide the information required and engage them in discussion. These discussions would have a structure to them whereby a definition or thesis was put forward by the "expert" and Socrates would then ask questions by means of which he gradually demonstrated that the definition failed, or 'refuted' the definition. In Plato's Academy, where Aristotle received his formal training, this model was the basis of a number of structured games or exercises in which one disputant tried to refute the thesis put forward by another. The inquiry would follow certain accepted patterns and be governed by rules. If the right processes were followed, then any resulting refutation would be judged a real one. But Aristotle also recognized that there could be refutations that appeared real but were not so. These he called 'sophistical', thereby associating them with the argumentative practices of the Sophists.[4]

The first six members of the list of thirteen in the *Sophistical Refutations* belong to his classification of refutations that depend on language: Equivocation, Amphiboly, Combination of Words, Division of Words, Accent, and Form of Expression. The remaining refutations are placed in a category that does not depend on language: Accident, *secundum quid*, Consequent, Noncause, Begging the Question, *ignoratio elenchi*, and Many Questions.

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[4] The Sophists were itinerant teachers in fifth-century Greece. Various doctrines and practices are attributed to them, but the picture is less than clear, in part because of our need to rely on the testimonies of Plato and Aristotle (both firm opponents of the Sophists) for much of our information about them. It does seem, though, that to consider all of their reasoning fallacious would be doing a great injustice to the complexity of their thought.

To illustrate the treatments of this list, we can take as an example the fallacy of Amphiboly, or "double arrangement." As generally interpreted, this fallacy involves an ambiguity arising from the way language is structured. So, a sign in a shop window reading, "Watch repairs here," would seem to qualify as an amphiboly since it is unclear whether the reader is being invited to leave a watch to be repaired, or to observe repairs taking place; hence, the double arrangement. While some modern and contemporary accounts retain this fallacy, it is difficult to find examples of it that arise in arguments and the kinds of ambiguity involved can be covered in a broader treatment of Equivocation.

Aristotle's list in the *Rhetoric* still retains some of the original thirteen, but since his goals were different in that work, other fallacies are introduced. Here he provides nine candidates, all judged "spurious enthymemes" rather than sophistical refutations. A problem may (1) arise from the particular words used; (2) involve an assertion about the whole that is true only of the part, and vice versa; (3) involve the use of indignant language; (4) involve the use of a 'sign', or single instance, as certain evidence; (5) represent the accidental as essential; (6) involve an argument from consequence; (7) involve a false cause; (8) omit mention of time and circumstance; (9) confuse the absolute with the particular. We will see vestiges of some of these in the accounts ahead; others have dropped by the wayside.

As a tradition of fallacy developed out of the Aristotelian account, scholars and teachers have struggled to fit Aristotle's original fallacies into their own discussions. In many instances, such attempts were unsuccessful because the nature of Aristotle's insight arose from the original context of a dialectical debate. Outside such a context, the "fallacy" and its description made little sense. Thus, while contemporary accounts retain some of Aristotle's fallacies, they often take on much different descriptions. Our understanding has simply changed too much for the original description to be completely applicable in modern contexts.

Centuries after Aristotle, C. L. Hamblin reports the sad state of affairs that "we have no *theory* of fallacy at all, in the sense in which we have theories of correct reasoning or inference" (p. 11). Nor do we have any agreement on how a 'fallacy' should be defined. In spite of Hamblin's subsequent claim that "almost every account from Aristotle onwards" identifies a fallacious argument as "one that *seems to be valid* but *is not* so" (p. 12), the weight of recent scholarship would tell against both the claimed tradition and the alleged definition.[5] In short, this standard treatment provides no standard at all. What it does do is emphasize the problems associated with the three central questions that were noted near the start of the chapter.

Hamblin implies that all fallacies are arguments. But some candidates from among Aristotle's original list, such as Accent and Many Questions, are not arguments at all – or, at least, not arguments in the sense that the tradition has tended to give to that term, as a collection of statements, one of which is a conclusion and others of which are premises for it.[6] We have already accounted for this concern in the more expanded working definition for this text, looking at reasoning within argumentative discourse rather than just arguments per se. This will allow us to accommodate Many Questions and other concerns such as Vagueness.

Second, it is asked, are fallacies to be restricted to a failure of validity? Even if this is understood in its widest sense to include both deductive and inductive validity, there remains the stark fact that a traditional fallacy such as the *petito principii*, or Begging the Question (again from Aristotle's list), is not invalid. Hence, we have the strange situation in which Aristotle himself is not committed to the definition ascribed to him. The simplest way for us to respond to this concern in an introductory treatment of fallacies

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[5] Hans V. Hansen, "The Straw Thing of Fallacy Theory," *Argumentation* 16 (2002), pp. 133–155.

[6] Both qualified, of course, under Aristotle's original concern with dialectical arguments, where what matters are the exchanges that go on in a dialogue.

is to employ a wider criterion than validity. Since a problem such
as Begging the Question is a violation of correct procedures even
though it is valid, we can speak of fallacies that appear *correct*
when they are not.

Perhaps most problematic of all is the final aspect of Hamblin's
definition: the *seeming* validity. This vestige of Aristotle's concern
between truth and appearance shifts attention from the argument
to whoever considers it, whether that be another participant in an
argumentative dialogue or a general audience, and deals with its
potential to deceive. Many of the examples favoured by textbook
authors, and by Aristotle himself, are not particularly deceptive,
conveying an obviousness that amuses more than it concerns. This,
though, may be more a problem with the examples than the idea
behind them. As we look to the importance of contextual features
in identifying and assessing many of the fallacies, we will see that
this audience-related feature cannot be avoided and so "seeming
correctness" will be an important consideration not just in identi-
fying the presence of a fallacy but also explaining how it has come
about and why it is effective if it is so.

As befits its dialectical origin, one clear sense of fallacy that we
will encounter will involve a shift away from the correct direc-
tion in which an argumentative dialogue is progressing. By vari-
ous means, an arguer may impede the other party from making her
point or may attempt to draw the discussion off track. In fact, one
popular modern approach to understanding fallacious reasoning
is to see it as involving violations of rules that should govern dis-
putes so as to ensure that they are well conducted and resolved.
This approach, put forward by van Eemeren and Grootendorst in
several works, goes by the name of 'pragma-dialectics'.[7] Not only

[7] Frans van Eemeren and Rob Grootendorst, *Speech Acts in Argumentative Dis-
cussions* (Dordrecht: Foris, 1984); *Argumentation Communication and Fallacies*
(Mahwah, NJ: Erlbaum, 1992); *A Systematic Theory of Argumentation* (Cambridge:
Cambridge University Press, 2004).