

Unit 2 notes

ARGUMENT

An argument is a list of statements one of which is conclusions and others are the premises or assumptions of the argument.

STRUCTURE OF AN ARGUMENT

At minimum, an argument consists of three parts:

1. A claim,
2. Reasons that support the claim, and
3. Evidence that supports the reasons.

It is important that you understand how to identify and interpret these parts of an argument in source material you read as well as how to organize them in your own writing.

When conducting secondary research for a project, you likely will encounter a range of sources on your topic, both scholarly and non-scholarly. Some of those sources will present arguments, whereas others will not, particularly if their purpose is to inform rather than to persuade. We are focusing on recognizing argument in academic journal articles since those are required sources for the course this book is designed for, but they are also commonly required for other courses—composition and non-composition courses—as well. If you are able to identify the arguments the authors of the sources you consult are making, then you will be better able to evaluate the quality of those sources and their usefulness to your own projects. You should never integrate a source into your own writing unless you understand the claim or main point that is being made, since doing so is likely to result in misinterpretation and flawed reasoning. Further, if you understand the argument your authors are making, then you also will be able to better determine what effect the authors hope to accomplish: do they merely want you to accept their position (leading to a change in knowledge), or are they writing to enact behavioral change? Recognizing the authors' likely purpose is an important part of reading effectively and appropriately representing source material in your own writing.

In addition, as you prepare your own argument-based writing, you need to carefully consider how to present your claim, reasons, and evidence to make your argument as successful as it can be. There is not one set formula to follow for organizing your argument; rather, you will need to make decisions based on the rhetorical situation as well as your own writing style and preferences. Further, sometimes your initial approach to organizing your argument will not be as impactful as it could and should be, regardless of how well you planned it, in which case you need to be willing to try a new way to approach the argument.

PREMISE AND CLAIM:

Claim is a demand of ownership made for something (eg claim ownership, claim victory) while premise is a proposition antecedently supposed or proved; something previously stated or assumed as the basis of further argument; a condition; a supposition.

A "premise" can be anything, the basic idea for a story, for example. The premise of Star Wars is an intergalactic war between an evil Empire and good guy Rebels.

A "claim" is something you are presenting as the truth. If a pharmaceutical company says they have developed an antiviral drug that cures COVID, that's a claim. They are claiming that they have a cure.

INDUCTIVE AND DEDUCTIVE ARGUMENTS:

What is a Deductive Argument?

A deductive argument is one in which true premises guarantee a true conclusion. In other words, it is impossible for the premises to be true but the conclusion false. Thus, the conclusion follows necessarily from the premises and inferences. In this way, a true premise is supposed to lead to a definitive proof truth for the claim (conclusion). Here is a classic example:

1. Socrates was a man (premise)
2. All men are mortal (premise).
3. Socrates was mortal (conclusion)

The essence of the argument, mathematically, is: If $A = B$, and $B = C$, then $A = C$.

As you can see, if the premises are true (and they are), then it simply isn't possible for the conclusion to be false. If you have a correctly formulated deductive argument and you accept the truth of the premises, then you must also accept the truth of the conclusion; if you reject it, then you are rejecting logic itself. There are those that argue, with some irony, that politicians are sometimes guilty of such fallacies—rejecting deductive conclusions against all logic.

What is an Inductive Argument?

An inductive argument, sometimes considered bottom-up logic, is one in which premises offer strong support for a conclusion, but one that is not a certainty. This is an argument in which the premises are supposed to support the conclusion in such a way that if the premises are true, it is *improbable* that the conclusion would be false. Thus, the conclusion follows *probably* from the premises and inferences. Here is an example:

1. Socrates was Greek (premise).
2. Most Greeks eat fish (premise).
3. Socrates ate fish (conclusion).

In this example, even if both premises are true, it is still possible for the conclusion to be false (maybe Socrates was allergic to fish, for example). Words which tend to mark an argument as inductive—and hence probabilistic rather than necessary—include words like *probably*, *likely*, *possibly* and *reasonably*.

Deductive Arguments vs. Inductive Arguments

It may seem that inductive arguments are weaker than deductive arguments because in a deductive argument there must always remain the possibility of deductive arguments arriving at false conclusions, but that is true only to a certain point. With deductive arguments, our conclusions are already contained, even if implicitly, in our premises. This means that a deductive argument offers no opportunity to arrive at new information or new ideas—at best, we are shown information which was obscured or unrecognized previously. Thus, the sure truth-preserving nature of deductive arguments comes at the expense of creative thinking.

Inductive arguments, on the other hand, do provide us with new ideas and possibilities, and thus may expand our knowledge about the world in a way that is impossible for deductive arguments to achieve. Thus, while deductive arguments may be used most often with mathematics, most other fields of research make extensive use of inductive arguments due to their more open-ended structure. Scientific experiment and most creative endeavors, after all, begin with a "maybe," "probably" or "what if?" mode of thinking, and this is the world of inductive reasoning.

VALID AND INVALID ARGUMENTS

Valid: An argument is valid if and only if it is necessary that if all of the premises are true, then the conclusion is true; if all the premises are true, then the conclusion must be true; it is impossible that all the premises are true and the conclusion is false.

Invalid: An argument that is not valid.

To judge if each is valid or invalid, ask the question, "If the premises are true, would we be locked in to accepting the conclusion?" If the answer is "yes," then the argument is valid. If the answer is "no," then the argument is invalid.

What is an example of an invalid argument?

An argument is said to be an invalid argument if its conclusion can be false when its hypothesis is true. An example of an invalid argument is the following: "If it is raining, then the streets are wet. The streets are wet."

What does invalid arguments mean?

An invalid argument is a argument in which the premises do not provide conclusive reasons for the conclusion.

An argument is invalid if the conclusion doesn't follow necessarily from the premises.

A valid argument is one where the premises (assuming they are true) necessarily lead to the conclusion. Here is an example:

All elephants are mammals

Jumbo is an elephant

Therefore, Jumbo is a mammal

Unfortunately, the following is also a perfectly valid example:

All elephants can fly

Dumbo is an elephant

Therefore, Dumbo can fly

The point is, a valid argument doesn't actually mean the conclusion is *true*, just that it logically follows from the premises. If the

SOUND AND UNSOUND ARGUMENTS

The key difference between sound and unsound argument is that a sound argument is valid and has true premises whereas an unsound argument is invalid and/or has at least one false premises. Soundness is a technical feature of an argument. It helps us to determine whether the conclusion of an argument is true.

The following is an example of a sound argument. All mammals have lungs. All rabbits are mammals. Therefore, all rabbits have lungs. Here all the premises are true and the argument is valid. Hence, it is a sound argument, the other hand, an argument is unsound if it is either invalid or some of its premises are false. No mammals have lungs.

Validity and the truth of the premises are the two factors that determine the soundness of an argument. A sound argument is an argument that is valid and has true premises while an unsound argument is an argument that is invalid or has at least one false premises. Thus, this is the key difference between sound and unsound argument.

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A spoken or written account of a person, object, or event.

- The act, process, or technique of describing.
- A statement or an account describing something: *published a description of the journey; gave a vivid description of the game.*
- A pictorial representation: *Monet's ethereal descriptions of haystacks and water lilies.*
- A kind or sort: *cars of every size and description.*

ILLUSTRATION:

An **illustration** is a decoration, interpretation or visual explanation of a text, concept or process, designed for integration in print and digital published media, such as posters, flyers, magazines, books, teaching materials, animations, video games and films. An illustration is typically created by an illustrator. Digital illustrations are often used to make websites and apps more user-friendly, such as the use of emojis to accompany digital type. Illustration also means providing an example; either in writing or in picture form.

Assignment Unit 2:

Q 1) Write short note on structure of argument using suitable examples?

Q 2) What is the use of explanation and summary with respect to data analysis?