1.2 Arguments

An **argument** is a set of statements or evaluative sentences in which one of them is called the **conclusion** of the argument and the others (called the **premises** of the argument) are put forward as reasons for accepting the conclusion. In the following example,

- Secondhand smoking is a health hazard.
- Smoking should be banned in public areas.

the premise “Secondhand smoking is a health hazard” is used to support the conclusion “Smoking should be banned in public areas.”

### 1.2.1 Reasons vs. Causes

It is important to distinguish between reasons for accepting a belief and causes that lead someone to hold a belief. For example, a person’s fear of death may cause her to believe that there is life after death, but such a fear should not be considered as a good reason, that is, good evidence that can be used to support the truth of the belief. Would you regard the following as a good argument?

- I fear death.
- There is life after death.

In examining arguments, we focus on reasons for or against a belief, not its causes. The cause of a belief may be studied or dealt with in psychology, psychoanalysis and psychotherapy.

### 1.2.2 Distinguishing Premises from Conclusion

Certain key words or phrases such as

- since
- because
- for
can help us tell which sentences in an argument are the premises. They are called premise indicators.

Others such as

- therefore
- so
- it follows that
- consequently
- accordingly
- hence
- as a result

can help us identify which sentence is the conclusion. They are called conclusion indicators.

In the following argument

All censorship is unconstitutional. Since any form of censorship hinders the freedom of speech, and all measures that violate the First Amendment are unconstitutional.

the word “Since” indicates that the sentences “any form of censorship hinders the freedom of speech” and “all measures that violate the First Amendment are unconstitutional” are premises. After the premises are identified, it becomes clear that the first sentence “all censorship is unconstitutional” is the conclusion.

If an argument does not contain any premise or conclusion indicator, then we would need to rely on the context to identify the conclusion. Normally, the sentence (quite often the topic sentence of a paragraph) that declares a stance on a controversial issue is the conclusion.

1.2.3 Making Claims in an Argument

When someone presents an argument, the person is making two kinds of claims:

1. The factual/evaluative claim

The point of offering an argument is to present reasons to support a belief or position in dispute. If a premise is a statement, then the person is claiming that you should accept it as true. She is thus making a factual claim. If a premise is an evaluative sentence, then she is making an evaluative claim that you should agree with the preferences or values expressed in the premise.
For example, in the argument (1.2b)

Fossils of feathered dinosaurs with wings were discovered in China.

Birds evolved from dinosaurs.

the person is making a factual claim about the discovered fossils of dinosaurs with feathers. By contrast, in the next argument (1.2c)

It’s inhumane to let terminally ill patients suffer unnecessary pains.

Doctor-assisted suicide should be legal.

the person is making an evaluative claim about the inhumaneness of unnecessary suffering.

2. The inferential claim

The inferential claim is the claim a person is making about how her premises support her conclusion. In (1.2b), in addition to the factual claim, there is a second claim about how the discovery of the fossils serves as a compelling reason for agreeing with the conclusion regarding the evolution of birds from dinosaurs. Likewise, in (1.2c), there is a claim about how the inhumaneness of terminally ill patients’ unnecessary suffering lends force to the legalization of doctor-assisted suicide.

The inferential claim is a critical link between the premises and the conclusion. Without it, there would be no argument. It is what distinguishes an argument from a report or an explanation. For instance, the following passage

Seventy thousand United Food and Commercial Workers Union (UFCW) workers are on strike against four supermarket chains in Southern California. The main contention is over medical benefits. The workers demand affordable health care while the companies seek to curb their health care costs.

is a report explaining why the strike happens. It is not an argument because there is no inferential link among the sentences.

1.2.4 Assessing the Two Claims

In order to decide whether to go along with an argument based on rational thinking, we need to examine the argument critically. This means to evaluate the two claims to see if they hold water. The following flow chart shows the whole procedure of argument evaluation. \( P_1 \) stands for the 1st
premise and $P_n$ is the $n^{th}$ premise. $C$ is the conclusion. For each premise, we need to decide whether it is a statement or an evaluative sentence. If it is a statement, we then decide whether it is true or false. If it is an evaluative sentence, we then find out if it is acceptable or unacceptable based on our value standards. Next, we examine the inferential claim. If the argument is claimed to be 100% supporting, then it is deductive; otherwise, it is inductive. For a deductive argument, we then examine whether it is valid. For an inductive argument, we assess its supporting strength. If the strength is greater than 50%, then the induction is strong. If it is equal to or less than 50%, then the induction is weak. We will learn more about these key concepts in 1.3. Click on the button to step through the process.

1.2.5 Classifying Arguments

There are different ways to classify arguments into various types. One way is to distinguish factual arguments from evaluative arguments. The other is to group them into deductive and inductive arguments.

**Factual/Evaluative Arguments**

Arguments consisting of only statements are factual arguments. If an argument contains one or more evaluative sentences, then it is an evaluative argument.
**Deductive/Inductive Arguments**

Whether an argument is deductive or inductive is determined by the inferential claim made in the argument. We will study this important distinction in the next section.

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