Basic Argumentation

One way to structure your defense of a particular claim is by presenting your arguments in deductive form. This type of presentation makes the reasoning of your argument explicit and allows you to focus your defense on particular premises.

2. Four Deductive Inference Forms

2.1. Modus Ponens (Affirming the Antecedent)

Modus ponens is a valid inference form consisting of two premises and a conclusion. Here is the basic schema

1	p only if q	if p then q	$p \rightarrow q$
2	p	p	p
3	Therefore q	q	q

Premise (1) states that *p* only if *q*.
Example #1: S knows that *p* only if S is certain that *p*.
Example #2: S knows that *p* only if *p* was formed by a reliable process.
Example #3: S knows that *p* provided *p* is a basic belief or derived from a basic belief.

Premise (2) states that *p* is the case.
Example #1–3: S knows that *p*

(3) states that from (1) and (2), *q* is also the case.
Example #1: S is certain that *p*.
Example #2: *p* was formed by a reliable process.
Example #3: *p* is a basic belief or derived from a basic belief.

Notice that in premise (1) *q* expresses a necessary condition of *p*. So, suppose you wanted to argue for a reliabilist theory of knowledge. You might do this by defending that the claim that *p* is knowledge only if it is formed by a reliable process.

1	S knows that *p* only if *p* was formed by a reliable process.	$P \rightarrow Q$
2	S knows that *p*	P
3	Therefore, *p* was formed by a reliable process.	Q

Once you've presented a modus ponens argument, you'll need to defend each of the premises. That is, you'll want to provide evidence or an argument why they are true. You can do this by addressing each of the premises individually. For example, you might say

> Premise (1) is supported by the common-sense view that beliefs formed by reliable processes (e.g. perception, good reasoning, memory) are truth-conducive while beliefs

formed by unreliable processes are not truth-conducive. Two of the necessary conditions for knowledge are (1) justification and (2) truth. According to the reliabilist theory of knowledge, we can explain our intuitions about which beliefs are epistemically justified and which beliefs are not epistemically justified by appealing to the *method* or *process* by which our beliefs are formed. Here is a specific example.

(a) There are 54,343 pennies in the jar.

Assume (a) is true and assume we believe (a). Whether or not (a) counts as knowledge depends upon how we came to believe (a). If we believe (a) on the basis of guess, we would be inclined to say that we don't know (a) because guessing is not truth-conductive. Even if we were right about (a), there could have easily been 64,204 pennies in the jar, and therefore we would have guessed incorrectly. However, if we counted all of the pennies in the jar, and then used a very accurate change-counter to count the pennies in the jar, we would say that (a) is knowledge. Thus, the only difference between the two cases is that in the former case the belief was formed by an *unreliable method* while in the latter case, it was formed by a *reliable method*. Thus, a belief counts as knowledge only if it is formed by a reliable process.

Premise (2) is the case because various skeptical arguments are not convincing.

2.2. Modus Tollens (Denying the Consequent)

Another way to argue for your theory is through modus tollens (or denying the consequent). A modus tollens consists of two premises (1) and (2), and a conclusion (3).

(1) states that something *p* is the casomething else *q* is the case.
Example #1: S knows that *p* only if S is certain that *p*.
Example #2: S knows that *p* only if *p* was formed by a reliable process.
Example #3: S knows that *p* provided *p* is a basic belief or derived from a basic belief.

(2) states that *q* is *not* the case.
Example #1: S is *not* certain that *p*.
Example #2: *p* was not formed by a reliable process.
Example #3: *p* is not a basic belief nor derived from a basic belief.

(3) states that from (1) and (2), *p* is *not* the case.
Example #1: S does not know that *p*.
Example #2: S does not know that *p*.
Example #3: S does not know that *p*.

Here is a specific example. A skeptic might argue that knowledge requires certainty, and so would claim that (1) one knows something only when one is certain, (2) one is not certain about a large number of things that we think we have knowledge of, and infer that (3) we do not have knowledge of many things.

1	S knows that *p* only if S is certain that *p*.
2	S is *not* certain that *p*.
3	Therefore S does not know *p*.

Just as in the case of modus tollens, you'll want to defend the specific premises.

2.3. Disjunctive Syllogism

Another way to argue for your theory is to pose it against an alternative theory. You would do this by saying that either your theory is correct or the alternative theory is correct.

1	p or q	$p \vee q$
2	not-q	$\neg q$
3	Therefore p	p

Suppose you wanted to pit two theories against each other. For example, say that you thought Coherentism and Foundationalism were the two strongest theories of epistemic justification. You might claim either coherentism or foundationalism is correct.

1	Coherentism or Foundationalism is correct.	$p \vee q$
2	Foundationalism is *not* correct.	$\neg q$
3	Therefore, Coherentism is correct.	p

Once you've laid out your theory, you'll need to argue for each premise. In particular, you will want to pay particular attention to premise (1) since you will be open to the charge of a false dilemma. That is, someone might object to (1) and say that (1) is false because neither Coherentism nor Foundationalism is the correct theory of epistemic justification.

2.4. Indirect Proof (Proof by Contradiction or Reductio Ad Absurdum)

An indirect proof starts with an *assumption*, then reasons to a contradiction (or absurdity), and then concludes with the contradiction of the assumption. Indirect proof is a powerful way to show that your theory is preferable to some other theory.

The basic schema is as follows

1	Assume p
2	Reason to a contradiction (e.g. *q* and not-*q*)
3	Therefore not-p.

The goal of indirect proof is to show that a particular assumption entails something absurd. Here is an example. Consider the specific example involving modus ponens above. The defense or premise (2) was not particularly compelling. It reads:

> Premise (2) is the case because various skeptical arguments are not convincing.

You might want to make a more compelling case by showing that a particular version of skepticism is wrong. Using indirect proof, you would do this by *assuming that skepticism is correct* and then showing that something counterintuitive (or contradictory) follows from it.

1	Assume global skepticism is correct.
2	Skepticism is correct only if we don't know anything.
3	Skepticism is correct only if we know that skepticism is correct.
3	From (1) and (2), it follows (by modus ponens) that we don't know anything
4	From (1) and (3) it follows (by modus ponens) that we know that skepticism is correct.
5	From (3) and (4) it follows that we know skepticism is correct and don't know that skepticism is correct.
7	(5) is absurd. Therefore, global skepticism is false.

2.5. Exercise

Using one of the above inference forms, create your own argument for a particular theory of justification or theory of knowledge.