1 Chapter 4: Reconstructing Arguments

In order to critically assess arguments it is first necessary to understand the structure of the argument. The way in which arguments are presented, however, is often not conducive to determining the structure. Thus, it is often necessary to reconstruct the argument. I will briefly go through the steps involved in argument reconstruction.

When identifying the premises and conclusion of an argument we use the following conventions:

1. The conclusion is underlined and represented by C.
2. Premises are enclosed in brackets and represented by P1, P2, P3, etc.
3. A missing premise or conclusion is represented by MPx or MC.

We will follow Hughes and examine the following argument as an example of argument reconstruction:

The most important challenge facing educators today is to teach students how to write decent prose. By “decent prose” I do not mean elegant writing; I mean simple straightforward writing that conforms to the rules of English grammar and clearly conveys its meaning. The ability to write decent prose is important because those who lack it will be unable to understand the great achievements of our cultural heritage—whether of Homer or Hemingway—and, perhaps even more important, will be unable to communicate effectively in today’s world.

1.1 Stage 1: Identification of the Premises and Conclusion

First we identify the conclusion—the author’s/speaker’s main point, what the author is trying to convince the reader of. In our example, this is clearly the first sentence: ‘The most important challenge facing educators today is to teach students how to write decent prose.’ One must always be careful to identify the right conclusion.

The second step, then, is to identify the premises—what reasons are given to support the conclusion? Note that often some of the sentences are not actually part of the argument. In this case there are only two premises stated: (1) ‘those who lack the ability to write decent prose will be unable to understand the great achievements of our cultural heritage’ and (2) ‘those who lack the ability to write decent prose will be unable to communicate effectively in today’s world.’ Notice that I have reworded the premises so that they are complete sentences.

1.1.1 Identifying Missing Premises

In many cases, from the actual wording of an argument, we are not given enough information to infer the conclusion from the premises. In such cases, the reconstruction will require the introduction of missing premises. Note that the purpose of this is to reconstruct the argument so as to represent the author’s intended meaning; in cases where this is clear from the context the missing premises are inserted where required and in cases where the intended meaning is not clear we use the principle of charity to supply reasonable missing premises. A good example of an argument that requires a missing premise is the following:
P. Doug’s birthday is tomorrow.
∴ C. Bob should buy him a present.

In this case, there is no clear reason why P. leads us to conclude C. We require extra information—an extra premise. Clearly, there needs to be some relation between Bob and Doug. Suppose that we learn, or know, that Bob and Doug are the MacKenzie brothers, then we can supply a missing premise to make the inference go through:

Bob and Doug are brothers.

If, on the other hand, we do not know of any relation between Bob and Doug and we have no reason to suppose one, we must say something to the effect that unless Bob and Doug have a special relationship, the argument is weak.

Returning to our argument, then, we now have (rewording for clarity):

P1. The ability to write decent prose is important because those who lack it will be unable to understand the great achievements of our cultural heritage.

P2. The ability to write decent prose is important because those who lack it will be unable to communicate effectively in today’s world.

C. The most important challenge facing educators today is to teach students how to write decent prose.

In order for these premises to support the conclusion we must assume that educators have a responsibility to give students an understanding of the great achievements of our cultural heritage and to teach students to communicate effectively. It is reasonable that the author is assuming this (using the principle of charity, but we should check if possible) and so we can add the missing premise:

MP3: Educators have a responsibility to give students an understanding of the great achievements of our cultural heritage and to teach students to communicate effectively.

It also seems as though an assumption is also being made that the most important abilities for students to develop are the ability to understand the great achievements of our cultural heritage and the ability to communicate effectively in today’s world. This might seem obvious to some, in which case it might not need to be explicitly stated. If, however, one wanted to criticize the argument based on this point, it should be included as a missing premise, since it (or something like it) must be assumed for the argument to go through.

This now enables us to write the argument in standard form:

P1. The ability to write decent prose is important because those who lack it will be unable to understand the great achievements of our cultural heritage.

P2. The ability to write decent prose is important because those who lack it will be unable to communicate effectively in today’s world.

MP3. Educators have a responsibility to give students an understanding of the great achievements of our cultural heritage and to teach students to communicate effectively.

∴ C. The most important challenge facing educators today is to teach students how to write decent prose.
1.2 Stage 2: Identification of the Structure of the Argument

Understanding the structure of an argument is vital for critical assessment of an argument since we need to understand how the premises are supposed to support the conclusion. The easiest way to see the structure of an argument is to represent it as a graph or tree diagram. We use letters, such as P1, P2, MPx, C, to indicate propositions and arrows to indicate inferences. We will briefly go through the components of tree diagrams.

1.2.1 Simple Arguments

The simplest component is a simple argument, i.e., where a single premise P supports a conclusion C. In such a case we use the following diagram:

\[
\begin{array}{c}
P \\
\Downarrow \\
C
\end{array}
\]

1.2.2 T Arguments

There are two slightly more complex components of tree diagrams. The first of these is T arguments. In the case of T arguments, two or more premises provide joint support for a conclusion:

\[
\begin{array}{c}
P_1 \\
\Downarrow \\
P_2 \\
\Downarrow \\
C
\end{array}
\]

In such cases the premises only provide support for the conclusion when taken together.

Note that this is not how Hughes depicts a T argument, and it is not how you should do it, but I don’t know how to typeset it properly—the premises, P1 and P2, should be underlined, i.e., the arrow should not go between them but underneath them.

1.2.3 V Arguments

The final component is a V argument. In such cases separate reasons are provided in support for the conclusion:

\[
\begin{array}{c}
P_1 \\
\searrow \\
P_2 \\
\searrow \\
\nearrow \\
\nearrow \\
\nearrow \\
\nearrow \\
\nearrow \\
C
\end{array}
\]

1.2.4 Complex Arguments

Large and more complex arguments can be constructed from these basic forms. In such cases each of the portions that is representable as a V or a T argument will be a sub-argument of the entire argument. An example of such a structure would be the following:
You may see that even though the entire argument is composed of each of the three basic forms, the overall structure of the argument is a V structure. Thus, we see that not only are the V and T structures components of arguments, but they are kinds of arguments.

Now, let us return to the initial argument that we used as an example:

P1. The ability to write decent prose is important because those who lack it will be unable to understand the great achievements of our cultural heritage.

P2. The ability to write decent prose is important because those who lack it will be unable to communicate effectively in today’s world.

MP3. Educators have a responsibility to give students an understanding of the great achievements of our cultural heritage and to teach students to communicate effectively.

∴ C. The most important challenge facing educators today is to teach students how to write decent prose.

In this case we see that P1 and P2 do not provide direct support for the conclusion on their own, since they don’t connect directly to the conclusion (this is why we needed a missing premise). P1 and P2 work together with MP3 to support the conclusion, but do so independently and so the correct structure is a V argument:

You could separate MP3 into two separate premises, one that works with P1 and the other with P2, which might actually be better, but the above reconstruction is OK.