Purpose: The purpose of this document is provide students with (1) a step-by-step process for reconstructing arguments and (2) a worked example of argument reconstruction. The worked example is one of Berkeley's argument that abstract ideas cannot be formed; this argument appears in an unpublished manuscript of *A Treatise Concerning the Principles of Knowledge*. Ideally, this document ought to be used in conjunction with the assignment in which students reconstruct one of Hume's or Berkeley's published arguments against abstract ideas. My reconstruction of the text is inspired by [Jesseph, 2010]'s interpretation of Berkeley.

Reconstructing Arguments

Reconstructing an argument involves six steps:

- 1. Copy all the assumptions and conclusions. Label
 - (a) Which assertions are assumptions and which are conclusions.
 - (b) Of which premises each conclusion is purportedly a consequence
- 2. Copy the author's definitions of all technical terms. If the author does not define key terms, copy any passages in which the author explains or gives examples of key terms.
- 3. Rewrite all definitions, assumptions, and conclusions in your own words.
- 4. Add plausible premises to render the argument valid. Similarly, explain critical terms that the author seems to have left undefined.
- 5. Provide textual evidence that supports your hypothesis that the author likely endorsed the premises and definitions you have added.
- 6. If appropriate, repeat the above five steps if the author provides arguments with conclusions that are identical to the premises of the argument that you have just reconstructed.

Berkeley's Impossibility Argument

In an unpublished manuscript of A Treatise Concerning the Principles of Knowledge, Berkeley argues:

It is, I think, a receiv'd axiom that an impossibility cannot be conceiv'd. For what created intelligence will pretend to conceive, that which God cannot cause to be? Now it is on all hands agreed, that nothing abstract or general can be made really to exist, whence it should seem to follow, that it cannot have so much as an ideal existence in the understanding.

Reconstructing Berkeley's Argument

Step 1

- Premise 1: "an impossibility cannot be conceiv'd"
- Premise 2: "nothing abstract or general can be made really to exist"
- Conclusion: "it [nothing abstract or general] cannot have so much as an ideal existence in the understanding." (By premises 1 and 2).

Step 2

Although there are several important terms in Berkeley's argument (in particular, "abstract", "impossibility", "ideal existence in the understanding"), I will not copy his definitions of all technical terms because doing so would make this document very long. For example, Berkeley distinguishes between two types of abstraction in the first nine sections of the *Principles*, and a full reconstruction would distinguish the two types of abstraction.

Step 3

Below, I have rewritten Berkeley's definitions, assumptions, and conclusions in my own words.

- Premise 1*: If an idea can be formed, then it is possible for the object represented by the idea to exist.
- Premise 2*: It is impossible for the objects represented by abstract ideas to exist.
- Conclusion*: No abstract idea can be formed (from P1' and P2').

Steps 4 and 5

The argument is obviously valid, and so it is unnecessary to add any premises. Further, because I have not added any premises, it is unnecessary to provide textual evidence that supports my hypothesis that Berkeley endorsed the premises I have added.

Step 6 - Repeat

Here, I investigate whether Berkeley defended the two premises of the above argument. Clearly, Berkeley believed both premises of the argument were generally accepted. He calls the first premise, "a receiv'd axiom" and says the second premise "is on all hands agreed." Why does Berkeley think both principles are generally accepted? In the published version of the *Principles*, he cites passages from Locke that indicate that Locke endorsed the second premise. The attribution of premise 2 to Locke is supported by passages like the following:

... [the general idea of a triangle] is something imperfect, that cannot exist; an idea wherein some parts of several different and inconsistent ideas are put together (IV, 7, ix.)

So Berkeley's argument is a reductio ad absurdum of Locke's theory.

Although Berkeley says the first premise is a "receiv'd axiom" and attributes the second to Locke, he nonetheless defends both premises. I start with the second. Berkeley argues that different, individual abstract concepts cannot exist. For example, he argues that, if the abstract idea of a hand is colorless, then it cannot exist: "But then whatever Hand or Eye I imagine, it must have some particular Shape and Colour (I, 10)." In the same passage, he argues that the abstract idea of motion is impossible: "it is equally impossible for me to form the abstract Idea of Motion . . . which is neither Swift nor Slow, Curvilinear nor Rectilinear." These examples support the general thesis that no abstract idea can exist.

How should we reconstruct the argument in the examples? Here is a plausible reconstruction of the argument for the conclusion that the abstract idea of a triangle cannot be formed, which is similar to the two examples just mentioned.

Premise 1**: The abstract idea of a triangle is (a) representable by an image of a triangle, but (b) not represented by an image of a triangle that is scalene, isosceles, or equilateral.

*Premise 2**:* Every image of a triangle is scalene, isosceles, or equilateral.

Conclusion 1: The abstract idea of a triangle is (a) representable by an image of a triangle that is scalene, isosceles, or equilateral, but (b) not representable by an image of a triangle scalene, isosceles, or equilateral (by P1 and P2).

Definition: An idea is logically inconsistent if it possesses contradictory properties.

Conclusion 1: The abstract idea of a triangle is logically inconsistent (from C1 and Definition).

Premise 3: If an idea is logically inconsistent, then the object represented by it cannot exist.

Conclusion 2: The object represented by the abstract idea of a triangle cannot exist (from P3 and C1).

Premise 1*: If an idea can be formed, then it is possible for the object represented by the idea to exist.

Conclusion 3: The abstract idea of a triangle cannot be formed (from C2 and P1*).

Notice conclusion 2 is an instance of Premise 2*. I interpret "logically inconsistent" to be a modern rephrasing of what Berkeley meant by "impossibility." In addition to the passages above from Book I, Principle 10, the primary textual evidence that I have that Berkeley endorsed Premise 1**, which asserts that the abstract idea of a triangle is representable by "an image of a triangle" is in the following passage:

so is it impossible for me to conceive in my Thoughts any sensible Thing or Object distinct from the Sensation or Perception of it. [Berkeley, 1998], II, 5.

This passage also explains why Berkeley might have endorsed Premise 1*. Namely, the passage indicates that Berkeley assumes that, if an idea can be formed, then it must be possible to perceive the object represented by the idea. However, an object can be perceived only if it exists. So he concludes that if an idea can be formed, then it must be possible for the object represented by the idea to exist.

Step 6 - Repeat indefinitely...

Are we done reconstructing Berkeley's argument? For the purposes of a five to six page paper, the above reconstruction would be sufficient. But, in principle, one should reconstructing an argument requires finding the fundamental assumptions, i.e., the assumptions that the author offers no argument for whatsoever. In our case, Berkeley does seem to offer an argument for Premise 1**. Why does the abstract idea of a triangle have the above properties? Consider what Berkeley says about abstraction generally:

[To form an abstract idea], the Mind having observed that [particular ideas], resemble each other, in certain common Agreements of Shape and other Qualities, leaves out of the complex or compounded Idea it has of ... any other particular [ideas], that which is peculiar to each, retaining only what is common to all; and so makes an abstract Idea wherein all the particulars equally partake, abstracting intirely from and cutting off all those Circumstances and Differences, which might determine it to any particular Existence. [Berkeley, 1998, Book I, Principle 9].

In the case of the abstract idea of a triangle, we might reconstruct an argument for premise 1^{**} as follows:

Premise 0: An abstract idea has all and only the properties that each instantiating particular idea has.

Premise 1***: Every particular idea of a triangle is representable by an image of a triangle.

Conclusion 1*: If there were an abstract a triangle, it would be representable by an image of a triangle (by P0 and P1***).

Premise 2***: Every image of a triangle is scalene, isosceles, or equilateral.

Conclusion 2**: If there were an abstract a triangle, it would be representable by an image of a scalene, isosceles, or equilateral triangle.

Premise 3*: Not every particular idea of a triangle is representable by a scalene triangle. Similarly for isosceles and equilateral.

Conclusion 3*: If there were an abstract a triangle, it would not be representable by an image of a scalene, isosceles, or equilateral triangle (by Premise 2 and Premise 3*).

Conclusion 4: If there were an abstract a triangle, it would (i) be representable by an image of a scalene, isosceles, or equilateral triangle and (ii) not representable in that way. (by Conclusions 2** and 3*).

Notice that Conclusion 4 seems to be a rephrasing of Premise 1*.

References

George Berkeley. A treatise concerning the principles of human knowledge. Oxford University Press, New York, 1998.

Douglas M. Jesseph. *Berkeley's philosophy of mathematics*. University of Chicago Press, 2010.