Forms of Circularity

I. Lesson

One of the most common objections that we hear in public arguments is the claim "you're arguing in a circle!" or "you're begging the question!" While these objections may be raised more often than the fallacy actually occurs, there is no doubt that circular reasoning fallacies are very important to understand and to avoid. There are three types of circularity that will be discussed in this lesson:

Vicious Circular Reasoning: This is a form of reasoning which attempts to draw a conclusion from premises that already *explicitly* contain a statement of that conclusion.

Begging the Question: This is a form of reasoning which *implicitly presupposes* what an argument is seeking to prove within its premises.

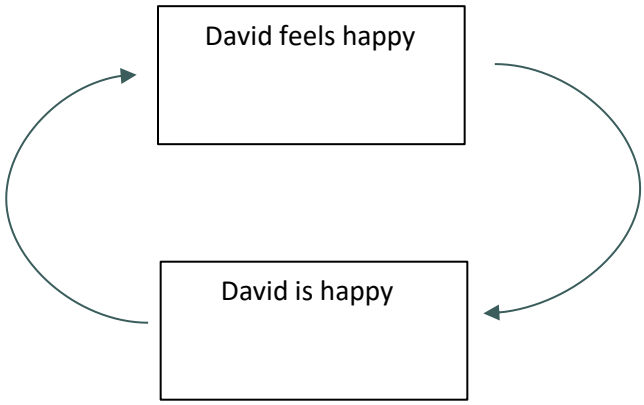
Virtuous Circular Reasoning: A form of reasoning which claims that rejecting a conclusion presupposes an affirmation of such a conclusion.

i.) Vicious Circular Reasoning

Vicious circular reasoning is perhaps the easiest form of fallacious circular reasoning to catch. This is because the conclusion we are trying to reach appears explicitly as one of our premises, but those premises were the basis from which we were trying to draw the conclusion in the first place. To make sound (deductive) arguments in logic, we want to move from premises we know to be true, to a new conclusion that must be true, given the premises. But with viciously circular reasoning, we have made no such move: we have simply stated that the conclusion is true by disguising it as a premise.

Take the following argument: "I know that David is happy because he feels happy. I also know that David feels happy because he is happy, and who doesn't *feel* happy when they *are* happy?" To understand the circularity here, let's look at a diagram of the argument:

Note: "A $\longrightarrow$ B" means "A, therefore B."



We see that this is vicious circular reasoning because the conclusion that we aim to reach is "David is happy." However, "David is happy" is also one of the starting points of the argument. Thus, the argument explicitly takes the conclusion as a premise.

ii.) Begging the Question

This fallacy is slightly more difficult to identify because it does not *explicitly* take the conclusion as a premise in the argument. However, if we were to make the hidden premise explicit, we would see that the argument is indeed circular. Take the following adapted dialogue from Plato's *Meno*:

Socrates: Ah, you're saying that you know what it takes to be a good person! Great, go ahead, what is goodness?
Meno: Goodness is the ability to rule over people.
Socrates: Hm, but aren't there bad rulers?
Meno: Sure, what I really meant is that goodness is the ability to rule *well* over people.
Socrates: Hah, but now you're saying that goodness is the ability to do something well, in other words, in a good way.
(adapted from Meno 73d-77a)

This is a form of begging the question because the very notion that we aim to define, goodness, is part of its definition. In other words, we are presupposing what we are trying to establish (what goodness is) in the establishment of what goodness is.

iii.) Virtuous Circular Reasoning

This type of reasoning was first used with force by Aristotle in *Metaphysics* to defend the principle of noncontradiction. We will discuss this principle later, but it is worth noting that Aristotle claimed that *all* thinking and action presupposes the principle of noncontradiction. If Aristotle was right in this assertion, then any rejection of the principle of noncontradiction would invariably presuppose the principle of noncontradiction.

"We can, however, demonstrate negatively that this view [that the principle of noncontradiction is false] is impossible, if our opponent will only say something."

-Aristotle, (*Metaphysics* Barnes transl.)

Here we see that this is a special type of circularity that is sound. Aristotle says that if the opponent only says, thinks, or acts, they use the principle of non-contradiction as an implicit premise. He uses this as proof that the principle of noncontradiction itself is true. This is exceptionally

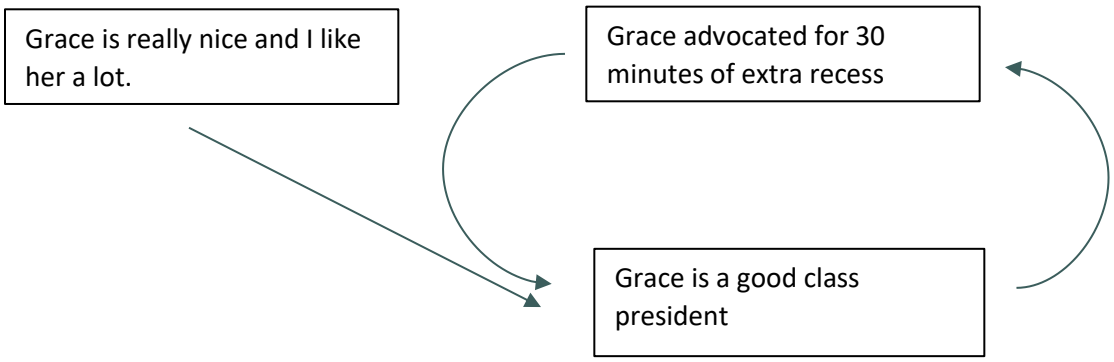
important because philosophers like Aristotle claim that there is a type of circularity that is valid, and this is virtuous circular reasoning.

II. Examples

Let's look at a slightly more complex example of vicious circular reasoning:

Mark: "Grace is a good class president since she advocated for 30 minutes extra recess. She is really nice and I like her a lot, so she must be good. Why, you might ask, does advocating for 30 minutes of extra recess make a class president good? That is a great question! Well, I know that if someone is a good class president (like Grace is), they will *definitely* advocate for 30 minutes more recess!"

Let's use a diagram to show why this type of argumentation is fallacious.



This is an example where there is a lot of extra information in the argument that might hide the fact that it is circular. However, once we get clear about the *structure* of this argument, we see that Mark thinks that Grace advocated for more recess *because* she is a good president, and that it is because she is a good president that she advocated for more recess. It might be the case and Mark was right that Grace is a good president! However, his attempt to justify this claim on the basis that she advocated for 30 minutes of extra recess falls short, since such an argument as it stands is viciously circular.

Now let's take a look at a famous example of an argument that allegedly begs the question. This is Descartes famous "cogito" in *Discourse on Method*:

I think, therefore I am.

In other words, Descartes is saying: "I think, therefore I exist." This argument has had no shortage of criticisms. The 20th century philosopher Bertrand Russell accused Descartes of begging the question

by stating "I think." For if Descartes is claiming that he is thinking, then he is already claiming that he exists! Thus, he is already presupposing the conclusion in his premise.

It is worth noting, however, that Descartes did not mean for this to be treated as a formal syllogism. In his *Meditations on First Philosophy*, Descartes is commonly interpreted to say that his claim should best be treated as a *simultaneous* assertion that could not possibly be doubted. Thus, we could treat it like "I think, therefore I am, and I am, therefore I think." Another way of treating it is as a couple of self-evident propositions that claim *both* thinking and being "I think or I am." This is to say that Descartes' famous assertion is far from unanimously rejected by philosophers.

III. Exercises

Exercise 1

Explain the difference between vicious circular reasoning, begging the question, and virtuous circular reasoning in a paragraph of your own words.

Exercise 2

Come up with your own example of both an argument that begs the question and an argument that uses viciously circular reasoning. Then trade arguments with a partner. Explain to them why the arguments they wrote are fallacious.

Exercise 3

Directions: Evaluate the following arguments, and write whether they are examples of vicious circular reasoning, begging the question, or neither. Explain why this is the case in a short paragraph.

1.) Kant is the best philosopher in world history, because he wrote the *Critique of Pure Reason.* And what is it about the *Critique of Pure Reason* that makes its author the greatest philosopher in world history? Well, it was written by a philosopher that is way better than any other to ever exist!
2.) Unicorns are really wonderful creatures from somewhere we can't see. Therefore, unicorns exist.
3.) Descartes was correct about the *cogito*, because the *cogito* is sound.
4.) Everything that is in the Constitution is true. This is because it was written by a group of people who were extremely intelligent and were all correcting anything that was wrong. But you might ask, how do we know who wrote and edited the Constitution? Well, it says right in the Constitution! It's written on at the bottom of the last page, and the Constitution is true, so we must know who the writers and editors are.

5.) All books are wonderful things, and the *Nicomachean Ethics* is a book. So, the *Nicomachean Ethics* is a wonderful thing. Any author of a wonderful thing is a wonderful author. Therefore, Aristotle (who wrote the *Nicomachean Ethics*) is a wonderful author.

Exercise 4

For each of the arguments which were viciously circular above, draw out a flow chart (like in the lesson) that shows why and how this is the case.

Exercise 5 (Challenge)

Evaluate Aristotle's argument for the principle of noncontradiction, and presuppose that he was right in that we all *must* affirm it in all that we do. Make a case for or against the soundness of his argument with this in mind. Is virtuous circular reasoning valid?

IV. Conclusion

Circular reasoning is a very common logical fallacy that occurs in all areas of life, whether it is in formal debates or in casual conversations. However, not all circular reasoning is easy to identify, and some of the most famous arguments in history have been accused of this type of fallacy. Furthermore, not all circular reasoning is necessarily fallacious. Aristotle himself employed a defense of the principle of noncontradiction which employed a special type of circularity..

V. Learning Objectives

At the end of this lesson, students will be able to:

- **E**xplain the difference between vicious circular reasoning, begging the question, and virtuous circular reasoning
- Distinguish between vicious circular reasoning and begging the question by examining argument examples
- Explain why begging the question is circular, by explicitly stating the hidden premise / information that is being presupposed in one of the premises
- Argue for or against the idea that *all* circular reasoning is fallacious
- Gain exposure to a couple of the most famous arguments in the history of philosophy (Aristotle's defense of the principle of noncontradiction and Descartes' *cogito*).
- Draw flow-charts to illustrate vicious circular reasoning

Answer Key:

Exercise 1

Answer: (answers may vary) Vicious circular reasoning very *explicitly* portrays that the conclusion of an argument is actually identical to one of its starting premises. It is generally the easiest form to identify. Begging the Question is circular *implicitly*. It is circular because one of the premises implicitly presupposes the truth of the conclusion. Thus, if the hidden premise (or information presupposed) is made explicit, circularity can more easily be seen. Virtuous circular reasoning is a form of reasoning that argues that something must be presupposed in making an argument for *anything*, and thus while the argument for itself presupposes itself, so does everything else as well.

Exercise 2

Answer: (answers will vary) good answers for vicious circular reasoning should very explicitly have the conclusion as one of the premises of the argument, while examples of begging the question should implicitly presuppose the truth of the conclusion in one of the premises.

Exercise 3

1.) This is an example of vicious circular reasoning, because the conclusion, that "Kant is the greatest philosopher in world history" is logically equivalent to one of the premises: "[Kant] is way better than any other [philosopher] to ever exist!"
2.) This is begging the question, because the premise does not explicitly say that "unicorns exist," but by stating that they are from a place that we can't see presupposes the idea that they exist, at least in some fashion.
3.) This is an example of begging the question, because although the argument does not explicitly say that the "*cogito* is sound" in saying "Descartes was right about the *cogito*," because the *cogito* was Descartes' argument, that is exactly what it implicitly presupposes. (Descartes claimed the *cogito* was sound, so if he was right, then it was sound!)
4.) This is an example of Begging the question, because the conclusion, "Everything that is in the Constitution is true," is implicitly presupposed in the premise which argues that what the bottom of the last page of the Constitution says is true: that the names on the page were the men who wrote it.
5.) This is actually a valid argument (although the premises are almost surely false). The structure of the argument can be broken up into two syllogisms:

Syllogism 1: Modus Ponens	P_1: All books are wonderful things
	P_2: The *Nicomachean Ethics* is a book
	C_1: Therefore, the *Nicomachean Ethics* is a wonderful thing

Syllogism 2: Modus Ponens

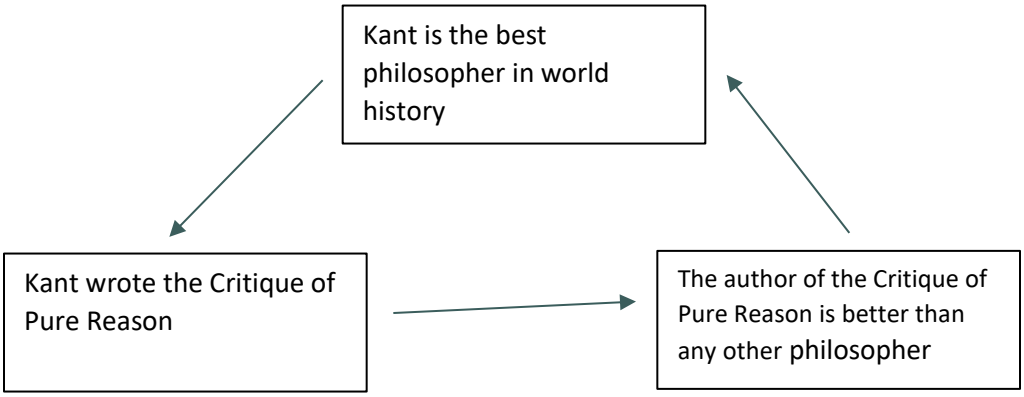
P_1: All authors of wonderful things are wonderful authors

P_2: Aristotle is the author of a wonderful thing (By the conclusion of the last syllogism – Aristotle is the author of the *Nicomachean Ethics*)

C_2: Therefore, Aristotle is a wonderful author

Exercise 4

The viciously circular argument was number 1. (flowcharts may vary)



Exercise 5

Answers may vary. Good answers approach this challenging problem with careful reasoning in trying to either show that Aristotle's argument was a form of some form of fallacious circular reasoning or one which shows that Aristotle's argument was a non-fallacious special type of circular reasoning.