

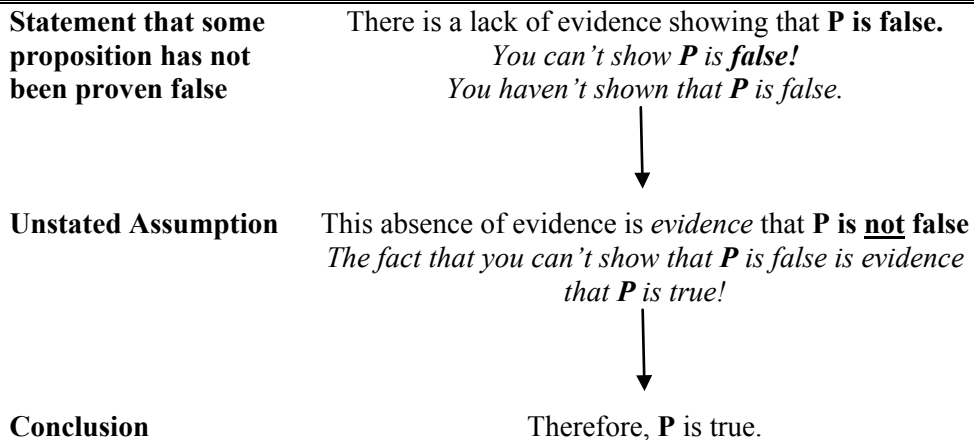
1. Appealing to Ignorance

The **appealing to ignorance fallacy** is any argument that reason from the inability to show that a proposition **P** is false (or that we are ignorant about **P**) to the fact that **P** is true. That is, it is a type of argument that claims that a statement is true *because* it has not been shown to be false.

There is no evidence showing that P is false.		
You cannot show that P is false.	therefore	P is true.
We don't really know that P is not the case.		

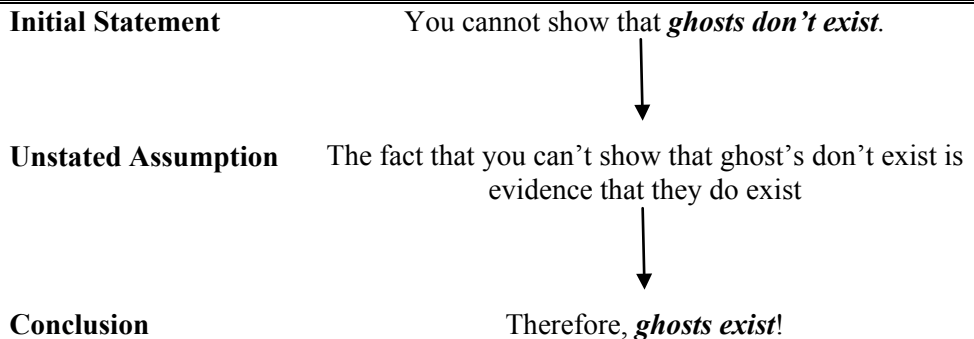
Appealing to ignorance arguments treat *a lack of evidence* / ignorance concerning **P** as **positive evidence** for some fact. Appealing to ignorance fallacies typically involve **three** parts

THE APPEALING TO IGNORANCE FALLACY



Here is a concrete example:

EXAMPLE OF AN APPEALING TO IGNORANCE FALLACY



Of course, appealing to ignorance arguments come in a variety of different forms:

EXAMPLES OF THE APPEALING TO IGNORANCE FALLACY

- 1 Jon: You should sleep with me tonight.
Liz: Why should I?
Jon: There isn't any good reason why you shouldn't. *Therefore*, you should
- 2 No one has ever proven that God does not exist. Therefore, God does exist.
- 3 You cannot show that you didn't steal a cookie from the cookie jar. Therefore, you did.
- 4 There is something in the sky, but I don't really know what it is. You know, I can't really prove that it isn't a UFO. Therefore, it is!
- 5 I don't know Liz isn't cheating on me. I really have no evidence to suspect she is. But, I can't prove that she *isn't cheating on me!* I don't know where she is at every moment. You know? I think she is cheating on me!

Appealing to ignorance arguments¹ are *fallacious* for at least two reasons. First, a lack of evidence in support of the claim that **P** is false is an **absence of evidence** about an issue. It is not *positive* evidence that **P** is true. Second, if such arguments were true, then we could use the fact that we don't something is not the case to infer a wide variety of wild facts. For example, we can show that bigfoot, god, ghosts, invisible blobs all exist since there is no evidence that they don't exist.

2. A Common Confusion: Evidence of Absence

The appealing to ignorance fallacy is committed when we reason from an *absence of evidence* to some definite conclusion. However, we routinely reason from there being evidence that something is absent to positive conclusion. Compare the following two arguments:

ABSENCE OF EVIDENCE	EVIDENCE OF ABSENCE
There is no evidence that it didn't rain. And besides, you can't prove that the ground wasn't wet five minutes ago. Therefore, it rained.	Whenever it rains, the ground is wet. Well, the ground is not wet. Therefore it rained.

Arguments that make use of an evidence of an expected absence do not commit the appealing to ignorance fallacy because they do not treat our lack of evidence (or ignorance) about something to some positive conclusion. These types of arguments instead commonly reason from the positive association of two things **rain-and-wet-ground** and the absence of one of those **wet-ground** to the absence of the other. Here are several other examples:

EXAMPLES OF THE REASONING FROM EVIDENCE INVOLVING AN ABSENCE

- 1 If John loved me, he would tell me he loves me. But, you know, John has never uttered the words "I love you". Therefore, he doesn't love me.
- 2 I've seen many patients that have the T-virus. When the T-virus is in your system, you will turn to a flesh-eating zombie in one hour. Well, it has been five hours since you have been bit. I think it is safe to say you don't have the T-virus.
- 3 A guilty man always denies his guilt. The man we have been interrogating for the last five hours

¹ This argument is also called "argumentum ad ignorantiam", "argument from ignorance fallacy", "lack-of-knowledge inference", and "the negative evidence fallacy"

hasn't denied that he is guilty. Therefore, he must be innocent.

- 4 If my teacher were going to give me a pop quiz today, then he would have given me a clue. Well, no clue. Therefore, no pop quiz.

Exercise Set #1

A. Create your own example of an argument that commits the appealing to ignorance fallacy. Be sure to identify how an *absence* of evidence is used as evidence to support some other claim.

B. Identify whether the following commits the appealing to ignorance fallacy or is a case where an individual reasons from the evidence of an absence.

1. Jon: Listen, I never said that I didn't love you. Liz: But, you never said you did.

2. If we thought that Liz committed the crime, then we would arrest her. But, notice that there is no evidence linking her to the crime. No fingerprints, no DNA, no eyewitnesses willing to state they saw her near the crime scene. Nothing.

3. If God did exist, then there should be some sign of God's existence. But, despite what people say, God has never revealed himself (or herself) to us. That settles it. I'm an atheist and you should be too.

3. Who Bears the Burden of Proof?

When an individual has the responsibility to show that a proposition **P** is true, we say that this individual **bears the burden of proof**. It is up to them to prove that **P** is the case, not up to those who don't accept **P**. That is, if someone claims that ghosts exist, who bears the responsibility in showing that this proposition is true or should be believed?

WHO BEARS THE BURDEN OF PROOF?

The *individual making a claim*

bears the burden of proof when the claim they are making is not common sense, when it is controversial, or when certain conventions demand it:

- *Sasquatch*: if you think that the Sasquatch exists, then the burden of proof is on you to prove that it exists. *It is not on everyone else to prove that it does not exist.*
- *Law*: if the State thinks John is guilty of murder, then the burden of proof is on the State to prove that John is guilty. *It is not on John to prove he is innocent.*

The *individual contesting a claim*

bears the burden of proof when the claim they are contesting is common sense, when what they are contesting is controversial, or when certain conventions demand it:

- *Common-sense truths*: John: 'The sky is blue.' Vic: 'Prove it.'
- *Innocuous Testimony*: Liz: 'I woke up this morning and ate a bowl of cereal.' Ryan: 'I don't believe you. Prove it.'

However, individuals often try to *put the burden of proof* on their opponents in an effort to get the upper hand (this is a clever rhetorical trick):

- WMDs: There are WMDs in Iraq. If there were WMDs in Iraq, they are likely to be hidden. And so, we should be cautious since the fact that we have not found WMDs in Iraq is good reason to believe that they have them hidden somewhere. Therefore, Iraq should prove that they don't have WMDs by letting us inspect its military bases.
- Tabloid: *Justin Bieber dating a 50 year-old woman*. If Justin Bieber isn't, he should deny it and prove that it is false. Since he hasn't, then it is true.

When we place the burden of proof on the person making an uncontroversial claim **P**, we implicitly commit the appealing to ignorance fallacy. Why? Consider the following argument:

APPEALING TO IGNORANCE AND SHIFTING THE BURDEN OF PROOF

- P1 **P** is accepted by nearly everyone (it is uncontroversial).
- P2 But, no one can conclusively prove beyond a shadow of a doubt that **not-P** (a controversial claim) is **false**.
- IC Therefore, there is an *absence* of conclusive proof that **not-P** (the controversial claim) is false and so this is *positive evidence* that **not-P** is true.
- C Therefore, it is up to those who reject **not-P** (the controversial claim) to show that it is false.

Notice that the intermediate conclusion states that because there is an absence of proof should count as positive evidence. This sort of argument pushes the burden of proof away from individuals who ought to give *positive evidence* for their claims since what they claim runs counter to common sense or certain rules.

3. The Presumption of Innocence

In the American system of justice, a defendant is *innocent until proven guilty*. Why is the burden of proof on the prosecution to prove guilt?

- *Reason #1*: If the appeal to ignorance fallacy were a legitimate form of reasoning, then it would be possible to prove an infinite number of absurd things.
 - Example #1: You can't prove that there isn't a million dollars in my house. Therefore, there is a million dollars in my house.
 - Example #2: You can't prove that you didn't cheat on the last exam. Therefore, you did cheat on the last exam, deserve an F for the course, and will be expelled from Penn State.
 - Example #3: John claims he was asleep in a hotel and a hundred miles away from the crime. Psh! He can't *prove* that isn't lying and so he can't prove that the hotel receipts he gave us aren't forgeries, and so he can't prove that he wasn't at the scene of the crime, and he also can't prove he didn't stab Mary with a knife and then hid it in a place that no one can find it. Therefore, John is guilty!
- *Reason #2*: Individual liberty is fundamental. Incarcerating someone would put a limitation on their liberty. Thus, the State requires strong reason or proof that there is good reason to limit someone's liberty.

Classroom Activity

Look suspiciously at the person sitting next to you. Now convict them of a crime that they didn't commit by using the appealing to ignorance fallacy. Write this fallacy out to present to the class.

4. Common Confusions Regarding the Appeal to Ignorance Fallacy

Example #1: Defendants Choosing Not to Testify

- The prosecution puts forward a weak case against John consisting mostly of shady witnesses claiming John killed Mary. John decides not to take the stand. If this is taken as an *indication* that John killed Mary, then the jury is placing the *burden of proof* on John and committing the appeal to ignorance fallacy.
 - Why? The jury is reasoning as follows: you didn't testify and prove you are *not* guilty, therefore you are guilty.
 - This reasoning is incorrect because the defense does not bear the burden of proof and does not need to show that the defendant is not guilty.

Example #2: Juries Placing the Burden of Proof on the Defendant

- The prosecution puts forward their case. The defense then puts forward their case. The jury reasons that it is *more likely* that the defendant John killed Mary than did not kill Mary (but they have **reasonable doubt** about *whether* John killed Mary). If the jury finds John guilty, then the jury is placing the burden of proof on John to **prove his innocence** and is thus committing the appeal to ignorance fallacy.
 - Why? The jury is reasoning as follows: the defense did not prove that the defendant is not guilty, therefore s/he is guilty.
 - This reasoning is incorrect because the defense does not bear the burden of proof and does not need to show that the defendant is not guilty.

Example #3: You have been pulled over!

- You are driving and are pulled over by a police officer. He asks you if you have been drinking. You don't want to answer this question and ask him if you are under arrest or are being detained. He says that he isn't interested in arresting you, he just wants to make sure you and others are safe and so you should just tell him if you have been drinking. You again ask him if you are under arrest. He begins to get angry and then says that you will be if you don't answer his questions.
 - *Articulate, the best you can, the fallacy that the police officer is committing here?*
- Still angry, the police officer decides to write you a citation for an improper lane change. As he is writing the citation, he asks you where you were coming from and where you were going. You tell him that you don't want to say. He becomes furious and tells you that you are not cooperating. He orders you out of the vehicle. You exit your car and close the door behind you. He then asks you if he can search your car. You tell him "no". He pushes you out of the way and searches your car. Under law, he must have probable cause to do so.²

² A has **probable cause** for action **p** if and only if **A** is more certain than not (i.e., more than 51% certain). Note that in order for someone to have probable cause their certainty needs to be based on some *objective* evidence and not mere suspicion.

- The police officer thinks you have been drinking and driving. In searching your car, he believes he is more certain than not that there is evidence of this in your car. How is this conclusion built on the appealing to ignorance fallacy? In answering this question, think about what evidence the police officer has for his certainty.

Ex.8-1 #1-3 (pp.123-125);

5. Zero Tolerance

Sometimes certain organizations, government agencies, universities, etc. make use of a principle call “zero tolerance”. The principle of zero tolerance is the principle that if **A** is accused of **p**, then **A** is immediately thought to be guilty of **p**. It effectively switches the burden of proof on the accused.

Example #1 (*Accused Bully*): John is a high school student accused of bullying a handicapped student. If the handicapped student accuses John of bullying, John should immediately be expelled.

Example #2 (*Accused Child Molester*): Jerry Sandusky is accused of molesting children. If someone is accused of molesting a child, he probably did it. Why? No one would ever make that sort of accusation if there wasn't some truth to it.

Example #3 (*Accused Rapist*): John is accused of raping Liz at a party. If someone is accused of raping a woman, then he probably did it. Why?

People argue for this principle on the grounds that it produces *good consequences*.

Argument from Consequences for Zero Tolerance in the Case of Domestic Abuse

P1: Many handicapped people, children, and women are the victims of harm.

P2: Placing the burden of proof on the accused would yield good consequences. It would make it deter victimizers and make it easier to convict them.

C: Therefore, a zero-tolerance principle should be invoked in cases involving *bullying*, *molestation*, and *rape*.

Exercise Set

A. Are you in favor or against the principle of zero tolerance? What are some of its benefits? What are some reasons it might not be a good principle?

B. Decide where the burden of proof belongs in each of the following cases.

1. “That man stole 4 heads of lettuce from my produce department! Ask him for his alibi and search his car!” Is the owner correctly placing the burden of proof on the accused?

2. A sushi restaurant is under a health code inspection because of some questionable ingredients. Many customers have recently become ill soon after eating there. Who must prove the safety of the food in question, the health inspectors or the restaurant?

3. Late one Friday night, residence life knocked on the door of my neighbor, Ashley's dorm room. They required her to let them in since her music was too loud. Upon entering, they

accused her of drinking. However, residence life did not search the room or smell any bottles directly. Whose job is it to prove the existence/lack of underage drinking?

4. Ben's economics professor calls him in to talk about his latest homework assignment. He's claiming that Ben plagiarized the essay and will receive a zero. He then asked him to prove that he wrote it by writing another, under his supervision. Ben is claiming that he was honest and simply worked harder on this paper than other assignments. Whose job is it to prove Ben's guilt or innocence?

5. My roommate thinks that the New England Patriots are the best team in the NFL. Whenever I disagree, she asks me to prove how any other team is better. Does the burden of proof fall on me for disagreeing or on her for claiming they're the best?

6. Advertisement: "With the *Insanity* workout tapes you will lose 30 pounds in only 60 days! If you don't believe us, order it and try it for yourself! If you're not completely satisfied, send it back for a full refund." Is *insanity* correctly placing that burden of proof on you, the consumer, to prove the effectiveness of their product?

7. Who bears the burden of proof?

Alexia is 14 years old, not a legal adult. When she severely dislocates her knee at a soccer game, her parents refuse to bring her to the hospital to get knee surgery. Their doctor tells the parents and Alexia that she will most likely never be able to play soccer again and will have trouble walking for the rest of her life if she does not go through surgery. Her parents do not believe in hospitals because they think, "we didn't use them years ago, why should we need them now." Alexia's parents also believe that it was God's plan for her to hurt her knee and that she is supposed to live her life the way she is now even if it is in suffering. The doctors disagree with this and feel that it is not right for a teenager to grow up with a physical disability, especially when there is an opportunity to do something about it. The parents are technically the one's who get to make the ultimate decision, although it is unfair to the child.