

Critical Thinking
Tutorial 5: Evaluating premises: Solutions

Exercise 1:

In each of the following scenarios which involve an *appeal to authority*. In each case, consider **a)** whether they are a trustworthy source (that is, would you accept the claim just based on the authority) and **b)** explain why or why not.

- 1) *Joe went for a swim after the storm and said that there were fewer fish in the bay.*
 - a) No
 - b) Joe is not a trustworthy source because he is not in a position to know. We know he went swimming after a storm – the storm itself might have affected his ability to observe the appropriate data (i.e. maybe it caused reduced visibility due to kicked up sand). We don't know whether Joe regularly swims in the bay – if he doesn't, he couldn't know whether there were *fewer* than usual. Further, his very presence might scare fish away!
- 2) *My endocrinologist told me I shouldn't eat sushi, because it will aggravate my thyroid condition.*
 - a) Yes
 - b) An endocrinologist is a hormone specialist and is the appropriate medical professional to treat diseases of the endocrine system, including thyroids. Further, this information can be corroborated by reliable outside sources (eg. <https://www.healthline.com/health/hyperthyroidism-diet#foods-to-avoid>). It is further corroborated by a plausible alternative argument about the causal mechanism relating seaweed, iodine and thyroid function.
- 3) *Maria owns a lot of horses. She says that kicking a horse's belly makes the horse speed up.*
 - a) No
 - b) Just because we know Maria *owns* a lot of horses doesn't mean she rides them. Maybe if we also knew she was a jockey, we might have enough information about her to rely on her as an authority in this case.
- 4) *Donald was getting worried about the cracks in his wall. He asked a builder to look at them, but the builder was too busy. He said that the cracks are nothing to worry about, but that he could have a look in six months time when his schedule freed up.*
 - a) No
 - b) The builder, while usually in a position to know, probably doesn't have enough information about the cracks without looking at it to make such a bold claim, so in

this case, is not in a position to know. Further, he might have an alternative motive to keep Donald from finding another builder. External information doesn't corroborate this claim either, as many cracks do indicate something to worry about and without seeing them, the builder probably can't know.

5) *Sam said he saw the hamburger pickpocket the woman. Sarah was sitting next to Sam and says she didn't see anything of the sort!*

- a) No
- b) Sam's claim is not corroborated by Sarah. There's the possibility of unconscious biases such as confirmation/my side bias playing a role, given that the *hamburger* is known to have stolen things in the past. We would want to know more about the factors which might lead Sarah and Sam to report opposite claims.

6) *Tom took his car into the repair shop for a busted tire. The mechanic said not to bother buying the cheap tires, and that Tom should buy the more expensive tires.*

- a) No
- b) Since the mechanic presumably has a motive to sell Tom the more expensive tires, we would want to see an independent argument given by the mechanic to justify the claim that Tom should buy the more expensive tires. It would not be enough to just say that he was a mechanic. If he was Tom's mechanic friend, instead of the mechanic selling him tires, then this role should be enough to put them in a position to know. In this case, the mechanic, as a sole source of justification for the claim, is not trustworthy.

7) *Charlotte is the bandicoot expert at the state botanic garden. She tells children that you can identify bandicoot poop because it sparkles in the sun.*

- a) Yes
- b) As Charlotte's role presumably involves science communication, she is an expert in the animal in question and likely identifying the animal in the garden, she is likely in a position to know. There are no obvious reasons to mistrust her in this claim. Further, the claim can be corroborated by independent sources with possible causal explanations for the claim (eg. <https://www.environment.sa.gov.au/goodliving/posts/2018/02/animal-poop> and "Tracks, Scats and Other Traces: A field guide to Australian mammals" by Barbara Triggs - if you're interested, it's because of indigestible shiny beetle casings).

8) *After culinary school, Helen became famous for her health food recipes in a popular food magazine. Helen said that a homemade avocado mask is really good for revitalizing heatdamaged hair.*

- a) No

- b) Knowing about food does not leave Helen in an appropriate position to know about hair, even if it involves homemade food products. Further, even if she had anecdotal evidence from her own hair, this is not enough evidence to generalise to all heat-damaged hair.

Exercise 2:

Read one of the following articles. Choose one claim which is supported only by an appeal to authority. This authority may be the author of the article, or an independent authority cited by the author. For that claim, answer the questions which follow.

Since there are so many possible correct combinations of claims and authorities, these solutions provide a brief summary of things to consider in answering these questions regarding the articles. Consider that if the author gives an *argument* in the article in support of the claim, the *argument*, and not the person's authority, should be evaluated. For most of these cases of evaluating a source for a claim, the quality of your response is going to be based on the reasons you give for either accepting or not accepting the authority as sufficient, rather than there being a clear-cut right or wrong answer about whether you should. But also, if there are clear considerations from what we have talked about that you don't consider in your argument, you might be missing some very big reasons not to take someone's word at face-value.

Examples of Claims (not all claims are premises – preferably choose one that is) and Authorities:

Claim	Appeal to Authority
Remembering specific life events enhances memory for those events.	Article Author, Julia Shaw
When we retrieve a memory, the memory traces in the brain become pliable.	Article Author, Julia Shaw
Seemingly small memory prompts can have important implications for our personal memories.	Article Author, Julia Shaw
There was a man who falsely confessed to a murder and got more and more detailed with each account etc.	Hugo Münsterberg
Memories in cases like that of McMartin Preschool case are fabricated not recovered.	Elizabeth Loftus
Memories can be implanted in the course of police questioning.	Julia Shaw and Stephen Porter
We shouldn't be putting weight on any memory in court.	Julia Shaw, University of Bedfordshire
A week after Münsterberg shared his opinion letter in the local press, the farmer's son was hanged.	Article Author, Douglas Starr

Article 1: How Facebook Learns While You Forget: The science behind social media nostalgia

<http://blogs.scientificamerican.com/mind-guest-blog/how-facebook-learns-while-you-forget/>

In this case, Julia Shaw is, in fact, a memory researcher – but from the information in the blogpost alone, what she researches specifically is not clear. So while she does have the expertise to write about memory research, some additional research is needed to determine this.

Generally, to determine expertise, I would not rely only on the author's own claims – in this case, J Shaw really does have the expertise she says she does, but still, the evidence for this presented in this posted is somewhat weak. Additional research is needed to be sure she really is an expert.

- What is the source's reputation for reliability?

Here, you could consider the place of publication, the institution, the author or researcher themselves (e.g. citations) etc. A blog post, in this example, has a different evidentiary status to an article or a peer-reviewed research article. What are the implications of this for your identified claim?

- What is the purpose of the website? What is their point of view? Are the reasons to suspect bias? Is there any motive for not telling the truth?

There is clearly a motive to create attention for her research topic and her book, but I wouldn't be too worried about bias in this case – she would be risking her reputation as a researcher, and she will probably not earn much from an academic book. But still, this type of thing is something to consider.

- Are there other factors that might affect the reliability of the source?
- Does the source cite any supporting evidence from independent sources?

In this article, there is not a lot of citation to outside sources – at least without the hyperlinks in the original article (all the underlined sections – you could go back and evaluate those claims using those sources for more practice). This would perhaps improve the reliability of some of the claims, so that we don't just have to take Julia Shaw's word for it.

For some texts, it is important to see how recent they are – and how new the cited research is. This does not mean that older articles are unreliable – but if the article is about a fast-moving field, you want it (and the sources cited in it) to be up-to-date.

Article 2: Remembering a Crime That You Didn't Commit

<http://www.newyorker.com/tech/elements/false-memory-crime>

Again, consider the place of publication and genre of the article, as well as, possibly, the date.

Consider who the author is – do they have the relevant expertise? As a journalist reporting on (appropriately referenced) scientific findings, and depending on the claim, no specific expertise on this topic may be needed. It all depends – but do consider this, and give reasons in support of your evaluation.

You can corroborate the Hugo Münsterberg claims by simply googling the cited article in Times Magazine. Its not an academic reference, but its clearly traceable for evaluation.

You would want to know what kinds of journals the researchers are publishing this work in – it can be a good heuristic for quality and rigour (but can also be misleading – use your newfound critical thinking skills to evaluate these authorities too!).

For many of the claims there's a description of the method of the scientific discovery process that supports the claim. These should be evaluated in place of the source (see later topic on Inference from a Sample for more details on this).

Consider how verbatim quotations are used to back up the authors' own claims. This shifts the appeal to authority from himself to the cited researchers.

Note that some of the findings here are anecdotal – but the source (the researcher, in this case) is clearly identified. Also, the strongest claims in the article are quotations – the journalist is describing research, but the strongest claims are those made by the researchers, not by the journalist. So this is a reasonably well-balanced article – though a further improvement might be to cite critics of the studies discussed. Do other researchers corroborate their claims?

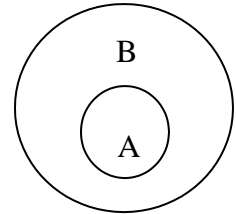
Exercise 3

Which of the following statements can be interpreted as generalisations? For those that can be so interpreted, rephrase the statement so that it is in one of the following forms:

All A are B

No A is B

You might also find it helpful to draw a diagram.



Example

Any bank that makes too many risky loans will fail.

This is a generalisation:

All **A** are **B** **A** = banks that make too many risky loans; **B** = banks which fail

Generalisations are marked with an asterisk. *

1. **Not all guilt feelings are psychological aberrations.**

Not a universal generalisation: This means that some guilt feelings are not psychological aberrations – but it is consistent with the claim that others are.

2. ***Every jazz fan admires Duke Ellington.**

All **A** are **B**

A = jazz fans

B = admirers of Duke Ellington

3. ***Any television show that depicts violence incites violence.**

All **A** are **B**

A = television shows depicting violence

B = televisions shows that incite violence

4. ***Manipulators do not make good marriage partners.**

All **A** are **B**

A = people who are manipulators

B = people who do not make good marriage partners

Alternatively...

No **A** is **B**

A = people who are manipulators

B = people who make good marriage partners

6. ***Only nuclear-powered vehicles are suitable for deep-space exploration.**

All **A** are **B**

A = vehicles that are suitable for deep-space exploration

B = are nuclear-powered vehicles

7. ***No shellfish except oysters make pearls.**

All **A** are **B**

A = shellfish that make pearls

B = oysters

8. ***Only diabetics require insulin treatments.**

All **A** are **B**

A = people who require insulin treatments

B = diabetics

9. **There are concerts in Central Park.**

Not a universal generalisation, but a statistical generalisation – roughly: some times are times in which there are concerts in Central Park – but others are not.

10. ***A pesticide is dangerous if it contains DDT.**

All **A** are **B**

A = pesticides that contain DDT

B = pesticides that are dangerous

12. *John Grisham writes only novels about lawyers.

All **A** are **B**

A = novels written by John Grisham

B = novels about lawyers

13. *Modern corporations are all run in the interest of their managers.

All **A** are **B**

A = modern corporations

B = corporations run in the interest of their managers

14. *All fruits except pineapples ripen after they are picked.

All **A** are **B**

A = fruits that ripen after they are picked

B = not pineapples

Alternatively...

No **A** are **B**

A = fruits that ripen after they are picked

B = pineapples

15. Monkeys are found in the jungles of Guatemala.

Not a universal generalisation but a statistical generalisation – roughly: some monkeys are found in Guatemala (but others might not be).

16. * Feathers are not heavy.

No **A** are **B** / All **A** are not **B**

A = feathers

B = things that are heavy

17. *Bats are the only true flying mammals.

All **A** are **B**

A = true flying mammals

B = bats

18. Not every river runs to the sea.

Not a universal generalisation but a statistical generalisation: Some rivers don't run into the sea (even if others might).

19. Dolphins are swimming between the breakers.

Not a universal generalisation but a statistical generalisation – only some of the dolphins in the area may be swimming between the breakers – and they might not be the only kind of animal swimming between them.

20. * Nothing in this room should be thrown out.

No **A** is **B** / All **A** are not **B**

A = thing in this room

B = something that should be thrown out

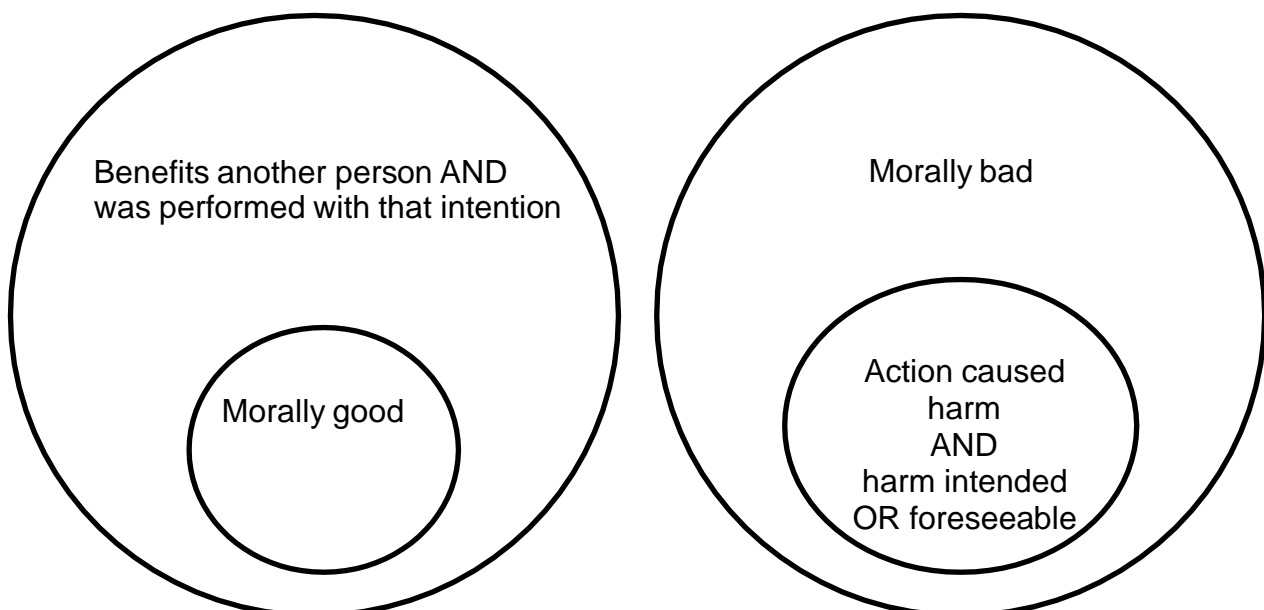
Exercise 4

The correct answer is D.

It has been claimed that an action is morally good only if it benefits another person and was performed with that intention; whereas an action that harms another person is morally bad if such harm was intended or if reasonable forethought would have shown that the action was likely to cause harm.

Which one of the following judgements most closely conforms to the principle cited above?

- (A) Pamela wrote a letter attempting to cause trouble between Edward and his friend: this action of Pamela's was morally bad, even though the letter, in fact, had an effect directly opposite from the one intended.
- (B) In order to secure a promotion, Jeffrey devoted his own time to resolving a backlog of medical benefits claims. Jeffrey's action was morally good since it enabled Sarah's claim to be processed in time for her to receive much-needed treatment.
- (C) Intending to help her elderly neighbour by clearing his walkway after a snowstorm, Teresa inadvertently left ice on his steps; because of this exposed ice, her neighbour had a bad fall, thus showing that morally good actions can have bad consequences.
- (D) Jonathan agreed to watch his three-year-old niece while she played but, becoming engrossed in conversation, did not see her run into the street where she was hit by a bicycle. Even though he intended no harm, Jonathan's action was morally bad.



Explanations for the options

B. Pamela wrote a letter attempting to cause trouble between Edward and his friend: this action of Pamela's was morally bad, even though the letter, in fact, had an effect directly opposite from the one intended.

No harm caused, so not a positive instance.

C. In order to secure a promotion, Jeffrey devoted his own time to resolving a backlog of medical benefits claims. Jeffrey's action was morally good since it enabled Sarah's claim to be processed in time for her to receive much-needed treatment.

This describes a morally good action which benefits another person but was not done with that intention. That would be a counter-example to 1.

D. Intending to help her elderly neighbour by clearing his walkway after a snowstorm, Teresa inadvertently left ice on his steps; because of this exposed ice, her neighbour had a bad fall, thus showing that morally good actions can have bad consequences. **This describes a case of a morally good action, which was done with the intention of benefiting someone, but actually result in harming them. So this would also be a counter- example to 1. Is it also a counter-example to 2?**

E. Jonathan agreed to watch his three-year-old niece while she played but, becoming engrossed in conversation, did not see her run into the street where she was hit by a bicycle. Even though he intended no harm, Jonathan's action was morally bad.

This is a positive instance of the second generalisation. John's action resulted in harm.

Although he did not intend to harm his niece, the harm was foreseeable. And the action is therefore described as morally bad. This is then a case that conforms to the second generalisation.

The philosophical argument of the week:

Singer on why charity is obligatory

I begin with the assumption that suffering and death from lack of food, shelter, and medical care are bad. I think most people will agree about this, although one may reach the same view by different routes. I shall not argue for this view. [...]

My next point is this: if it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought, morally, to do it. By "without sacrificing anything of comparable moral importance" I mean without causing anything else comparably bad to happen, or doing something that is wrong in itself, or failing to promote some moral good, comparable in significance to the bad thing that we can prevent. This principle seems almost as uncontroversial as the last one. It requires us only to prevent what is bad, and to promote what is good, and it requires this of us only when we can do it without sacrificing anything that is, from the moral point of view, comparably important. I could even, as far as the application of my argument to the Bengal emergency is concerned, qualify the point so as to make it: if it is in our power to prevent something very bad from happening, without thereby sacrificing anything morally significant, we ought, morally, to do it. An application of this principle would be as follows: if I am walking past a shallow pond and see a child drowning in it, I ought to wade in and pull the child out. This will mean getting my clothes muddy, but this is insignificant, while the death of the child would presumably be a very bad thing. [...]

The outcome of this argument is that our traditional moral categories are upset. The traditional distinction between duty and charity cannot be drawn, or at least, not in the place we normally draw it. ... When we buy new clothes not to keep ourselves warm but to look "well-dressed" we are not providing for any important need. We would not be sacrificing anything significant if we were to continue to wear our old clothes, and give the money to famine relief. By doing so, we would be preventing another person from starving. It follows from what I have said earlier that we ought to give money away, rather than spend it on clothes which we do not need to keep us warm. To do so is not charitable, or generous. Nor is it the kind of act which philosophers and theologians have called "supererogatory" - an act which it would be good to do, but not wrong not to do. On the contrary, we ought to give the money away, and it is wrong not to do so. (Singer 1972, *Famine, Affluence, and Morality*; see also *The Life You Can Save* and *The Most Good You Can*

Do, as well as <http://www.thelifeyoucansave.org/> and https://www.ted.com/speakers/peter_singer)

Here is a possible reconstruction of the argument (from Bruce & Barbone, *Just the Arguments*):

P1 Suffering and death from lack of food, shelter, and medical care are bad.

P2 If it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought, morally, to do it.

C1 If it is in our power to prevent suffering and death from lack of food, shelter, and medical care, then we ought, morally, to do it.

P3 By giving money to humanitarian aid agencies, one can prevent suffering and death from lack of food, shelter, and medical care.

C2 If one can give money to humanitarian aid agencies without thereby sacrificing anything of comparable moral importance (to suffering and death from lack of food, shelter, and medical care), we ought, morally, to do it.

P4 We can give a substantial amount of our money away by simply giving up buying things that we do not really need; that is, without sacrificing anything of moral importance comparable to suffering and death from lack of food, shelter, and medical care.

C3 We ought, morally, to give a substantial amount of our money to humanitarian aid agencies.

1. Which general principles does the argument assume?

From P1 *All instances of suffering and death from lack of food, shelter, and medical care are bad.*

From P2 *All cases in which it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, are cases in which we ought, morally, to prevent something bad from happening.*

2. How might one go about criticizing the resulting argument? How would such criticisms affect the general principles?

- Does it make a *moral* difference whether the people suffering are close to me – for instance emotionally (friends or family members) or geographically?
- Does it make a *moral* difference whether I am the only person who can help?
- Does it make a *moral* difference whether the obligation to help is ongoing or a one-off event?
- Are the principles too demanding?
- And so on...
- See Singer's original paper <http://www.utilitarian.net/singer/by/1972----.htm> for discussion - but there are many other resources on the web as well.

3. Let's say you are now convinced by Singer's conclusion. Does the argument give any indication of whom you should be giving your money to and how it could be put to the best use? (if you are interested, research "effective altruism" on the web)