

# Short Paper

Isaac Wilhelm

Your short paper must be *less than* 150 words long. It is due March 1 at 2:50pm, and it should be turned in at the Sakai website:

<https://sakai.rutgers.edu/portal/site/d766b977-5fb8-404a-a562-d1ce0520db33>

Note the late paper policy on the course website:

<https://isaacwilhelm.com/introduction-to-the-philosophy-of-science/>

In particular, note that you are responsible for making sure that your file is uncorrupted and successfully loaded to Sakai. Technological mistakes will not avoid lateness penalties.

Please read the following instructions carefully. For the assignment, choose one of the following selections from the textbook.

1. D. Gillies, “The Duhem Thesis and the Quine Thesis”, the paragraph spanning pp. 282-283 which begins with the phrase “The Quine thesis is stronger...” and ends with the phrase “...unit of empirical significance”.
2. C. Hempel, “Studies in the Logic of Confirmation (I.)”, the two-paragraph passage on p. 11 that begins with the phrase “We now turn...” and ends with the phrase “...but also on its formulation”.

Although your assignment will be based solely on the selected passage, you should read the whole article, in order to understand the passage’s background context.

Your paper should consist of two paragraphs, one for each of the following two tasks.

1. *Extract* the author’s argument in the assigned passage: roughly, tell me what the argument is, in numbered-premise format.
2. *Summarize* that argument: roughly, give me a very brief explanation of each premise and the conclusion.

In the rest of these instructions, I explain what I mean by ‘extract’ and ‘summarize’.

## 1 Extraction

Extracting an argument means formulating an argument in numbered-premise format—as you have seen me do in class—that captures what the author of the passage is arguing. The

extracted argument must be logically valid: so the truth of the premises must guarantee the truth of the conclusion. And the extracted argument must be more-or-less what the author had in mind.

For example, suppose you were to extract an argument from the paragraph below.

People have become lazy when walking their dogs. Sometimes, they neglect to pick their dog's poop up off their neighbors' grass. Those people should read up on the local laws regarding domestic pets. The laws are quite fair. They cover many different things, including proper dog-walking etiquette. So whenever I walk my dog, I always follow the law: do not leave dog poop on your neighbor's lawn!

A first attempt at an extraction might be this.

1. The local laws are fair.
2. The local laws imply that it is wrong to leave dog poop on your neighbor's lawn.
3. Therefore, it is wrong to leave dog poop on your neighbor's lawn.

Note that neither premise 2 nor the conclusion is explicitly stated in the paragraph above the extraction. That is fine: in many cases, your extracted argument will have lines which the assigned passage leaves implicit. And note that it may be possible to extract a different kind of argument from the assigned passage. That is normal: in general, the argument in the assigned passage will be compatible with several different extracted arguments.

This first attempt is no good, because it is not valid. Premises 1 and 2 do not logically imply the concluding line 3. To make the argument valid, another premise is required. So here is a second attempted extraction.

1. The local laws are fair.
2. The local laws imply that it is wrong to leave dog poop on your neighbor's lawn.
3. If the local laws imply that it is wrong to leave dog poop on your neighbor's lawn, then it is wrong to leave dog poop on your neighbor's lawn.
4. Therefore, it is wrong to leave dog poop on your neighbor's lawn.

Note that this is just one way of making the original attempted extraction valid. There are others: for instance, line 3 could be replaced by "Everything that the local laws imply is true".

The second attempted extraction is better than the first, because it is valid. But it is still not good enough, because premise 1 is superfluous. That is, the conclusion follows from premises 2 and 3 alone: premise 1 is unnecessary. So premise 1 should be cut. The resulting extracted argument is as follows.

1. The local laws imply that it is wrong to leave dog poop on your neighbor's lawn.

2. If the local laws imply that it is wrong to leave dog poop on your neighbor's lawn, then it is wrong to leave dog poop on your neighbor's lawn.
3. Therefore, it is wrong to leave dog poop on your neighbor's lawn.

This final extracted argument is great. It is valid, since it has the logical structure indicated below:

1.  $A$
2. If  $A$  then  $B$
3. Therefore,  $B$

where  $A$  is “the local laws imply that it is wrong to leave dog poop on your neighbor's lawn” and  $B$  is “it is wrong to leave dog poop on your neighbor's lawn”. In addition, this final extracted argument is good because it represents, reasonably well, what the author of the assigned passage had in mind. In other words, this final extracted argument is a good *precisification* of the line of thought in that passage.

## 2 Summarize

Summarizing an argument means explaining each of the lines. Since this assignment is extremely short, your summary should be short too. For instance, you might summarize each premise—as well as the conclusion—in just one or two sentences. In the case of the third extracted argument from Section 1, you might summarize the first premise like this: “The first premise expresses a fact about what the local laws say. In particular, it says that according to the local laws, it is wrong to not clean up your dog's poop”. And you might summarize the second premise like this: “The second premise connects the local laws to moral facts. In particular, it says that the local laws are right in what they say about the morality of failing to clean up after your dog”. Finally, summarize the conclusion. For instance, you might write this: “In conclusion, leaving dog poop on your neighbor's lawn is morally wrong”.