

Handout (Week 5)

Extracting Arguments

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Goal of this handout: explain how to extract arguments from texts.

Reading guide for completing the homework

- To solve homework problems 1-6, you will probably have to read all of Section 1.

Summary of handout

- Section 1: I explain how to extract an argument from a text.

1 Extraction

There are several ways in which this course might be helpful to you, regardless of what profession you decide to pursue. In this handout, I discuss a particularly important one: the theory covered in this course can help you extract arguments from articles, papers, books, blog posts, social media, advertisements, television, movies, and anything else which you might consume.

Argument extraction is the process by which you take, say, a piece of writing—a paragraph, a collection of paragraphs, a chapter of a book, or whatever—and

transform it into a numbered-premise argument. The resulting numbered-premise argument should be as close to the original argument as possible. It should represent, clearly and fairly, what the author of the original piece of writing had in mind.

For example, suppose you read the following on your friend's blog.

People have to eat more green beans. They contain many different nutrients. For instance, they contain lots of calcium; people tend to forget that. They also contain iron and magnesium, both of which help your immune system. And they contain plenty of vitamins: in particular, green beans contain vitamin A and vitamin K. So overall, green beans can really contribute to your health.

Suppose you want to extract an argument from your friend's post. Perhaps you want to see exactly what their assumptions are. Or perhaps you just want to get clear on what the argument actually is. Either way, it would be helpful to rewrite their argument in numbered-premise form.

Here is an argument which you might extract.

1. Green beans have lots of health benefits.
2. If green beans have lots of health benefits, then people should eat green beans.
3. People should eat green beans.

The extracted argument is much easier to work with than the original argument. For instance, as a simple check shows, the extracted argument is valid. To see why, just translate it into L , and note that the translated argument is valid. So the extracted argument is valid. And so it is reasonable to conclude that your friend's original argument is valid too.

Here is another example. Suppose you hear the following argument on an interview.

Nothing explains human behavior quite as well as astrology. Lots of celebrities endorse it: Rihanna and Beyonce do, for instance. I even heard that J.P. Morgan believes in astrology, and Ronald Reagan too: and they were extremely successful! But the most important thing about astrology is: it just makes people feel good. It provides helpful tools for navigating the ups and downs of life. So I personally think that astrology is true.

Here is an argument which you might extract from all that.

1. Astrology makes people—including famous people—feel good.
2. If astrology makes people—including famous people—feel good, then astrology is true.
3. Astrology is true.

Note that in the extracted argument, it is easy to see which premise might not be right. Most people would probably be inclined to reject the second premise. After all, something could make people—including famous people—feel good, and yet not be true.

This is one of the great virtues of argument extraction. In an extracted argument, it is often pretty easy to see which premises might be false. So you can use extracted arguments to determine exactly where, from your point of view, the original argument runs afoul. Sometimes, it is hard to determine that from just the original argument on its own.

In general, argument extraction is extremely useful. Taking a paragraph, and extracting an argument from it, often helps clarify the author's line of thought.

Argument extraction can reveal underlying, sometimes hidden assumptions. And argument extraction also makes it easier to identify an argument's problem points: by extracting an argument, and putting it in numbered-premise format, it becomes much easier to say exactly which premises seem right, which seem questionable, or which are clearly wrong.