

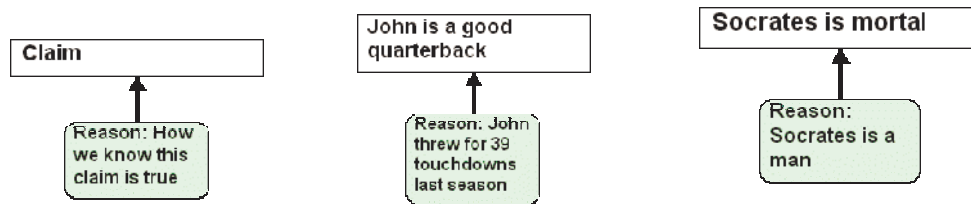
Argument Mapping 3 – From Prose to Maps I

Claims and reasons are the building blocks of arguments, but to be better understood we need to massage them slightly in order to fit them into an argument map.

Once you have a claim or reason, you need to be sure that it is in the simplest form possible before moving forward. Otherwise, we can get easily confused and will lose the power of mapping out our arguments. Translating prose statements into simple argument maps will be the focus of this tutorial.

Adding Boxes

An argument map will use boxes and arrows to show the connections between the various claims and reasons in an argument – each claim will have its own box, and each reason will also have its own box. Reasons are placed underneath the claims they support (they provide a foundation), with arrows pointing upwards to the particular claim they provide evidence for. To use a few of the examples from the previous tutorial:



Notice that the logical relationship is indicated by the positioning of the boxes and arrows. The box on top indicates that it is intended as the claim and the box underneath serves as the reason; the arrow operates as a 'therefore.'

Checking the Boxes

Once we have this 'draft' version of our argument map, we need to make a few corrections before we can go on to the next phase. There are four specific steps we need to follow for every box.

1. Ask the Assertibility Question (AQ)

To make sure that the boxes are placed properly, ask the AQ of the top box (the claim) and make sure that the bottom box (the reason) answers that question. If it doesn't, you may have the claim and reason mixed up.

Asking the AQ should also remind you to double-check to make sure that the text in the reason box is not an explanation (see Tutorial #2 for review).

2. Declarative sentence (DS)

Your sentence should be declaring something, taking a position (whether it is true or false). Make sure that each box has a full sentence, and not a phrase or sentence fragment.

- "John good quarterback" is not adequate – if the claim is that "John *is* a good quarterback," specify that. Otherwise, it's unclear what exactly is meant – *is* John a good quarterback? *Was* he at some point a good quarterback? *Will he be* a good

quarterback? These things are very different; as Bill Clinton once said, ‘It depends on what the definition of the word “is” is.’ Be precise.

- No questions! Since this is an argument, a claim is being asserted and its truthfulness is being assessed. You should not, therefore, put questions in the box as they do not take a stand one way or the other – questions are not in and of themselves true or false, only their answers are. In one sense, it doesn’t really matter whether you make the claim “John is a good quarterback” or “John is not a good quarterback,” since argument mapping provides ways to object to a claim or its reasons. In general, if you are mapping someone else’s argument, phrase the claim as they present it.

3. Only two terms per box (2T)

Make sure that each box has only two main terms. The word term is used in logic to mean a component or part of a statement. Each statement (i.e. claim or reason) should only have two terms in it because it could otherwise be true in some cases but false in others, whereas the whole point is to clarify our argument and see exactly where we disagree with others or have problems. We can see why only two terms are necessary by looking at the examples cited above. In the last two examples, the main terms are rather easy to pick out and are underlined:

Claim: (1) John (2) is a good quarterback.

Reason: (1) John (3) threw for 39 touchdowns last season.

Claim: (1) Socrates (2) is mortal

Reason: (1) Socrates (3) is a man.

These are relatively straightforward – in the first example, there’s something about John (1) and him being a quarterback (2). In the reason there is also something about John (1 again) and something new, something about him throwing 39 touchdowns last season (3). In the second example, there’s something about Socrates and then something about him being mortal and then, in the reason, something new about him being a man.

Notice how in each claim-reason pair there is a certain amount of overlap – in our examples, the term (1). This repetition is necessary for a logical argument – to prove that John is a good quarterback, you absolutely must provide evidence about *John*, *and* about something related to his being a *quarterback* (whatever it is that makes one good at being a quarterback). You can’t argue logically that John is a good quarterback and then talk only about Fred – you can, of course, compare John’s performance to Fred’s, but then you are talking about John after all. Nor can you claim that John is a good quarterback and then talk about his cooking skills, unless you somehow tie his cooking skills back to what is required to be a good quarterback. Nor, to take another example, would it make logical sense for a professor to argue that you deserve an F because Billy failed the class, unless the professor also establishes how you and Billy are similar regarding grades. Logicians call each part of these statements a ‘term,’ and we all know intuitively that they must match up. As we’ll see in Tutorial #4, we’ll need to introduce additional terms to match these up further as we complete our argument map.

Practically speaking, you know you have too many terms in a box if you see any of the following:

- punctuation other than a period: comma (in a list), semi-colon, or colon
- conjunctions: and (in a list), or...

If a box does have more than two terms, you need to parse them out into additional boxes, so that each box only has two terms.

To practice identifying terms, make sure you can identify the terms in the following statements. Also identify those that have more than two terms.

My cat likes to meow, sit on my desk, and eat.

Power comes from the barrel of a gun.

The recent North Korean missile test was a failure.

Notice how the first example violates this two-term rule, as it is possible that my cat likes to eat but not meow, so we can't definitively judge this statement until we break it up into three separate claims: 1) My cat likes to meow. 2) My cat likes to sit on my desk. 3) My cat likes to eat. Once we've done that, we can respond to each individually.¹

4. No Reasoning in Boxes (NR)

Similarly, boxes should not have reasoning in them either. The point of an argument map is to convert all of the reasoning into spatial variables (the relative positions of the boxes and arrows), so it does no good to hide some of that reasoning within a box since your assessment of the argument would fail to include the reasoning hidden within the box. As with the two-term requirement, any text in a box that includes reasoning must be divided among additional boxes so that there is no reasoning within any single box.

Practically, you know there is reasoning if the boxes include:

- reasoning indicators: words like because, since, yet, but, however, therefore...

In such cases, you need to separate the statement into their constituent parts. For example, a box with "Christianity is a violent religion because Christians commit violence in God's name" would be broken up into two separate boxes. One would be the claim (Christianity is a violent religion) and the second underneath it serves as the reason to support that claim (Christians commit violence in God's name). We do this because it is possible that someone could accept one part and reject the other.

These four steps may seem excessively detailed, but after a little while of using argument maps, they will become second nature.

¹ In a rare case, you may want to keep them together in a single box, *if* the claim is that the cat does all of these things together. You would still, however, have to break them up as separate boxes below (as a reason). We'll discuss how to map out reasons and claims more fully in the next tutorial.

Now that we know how to clean up our boxes so that all the reasoning is indicated by the spatial organization of the map, we can turn to the next step, which is to identify the various assumptions that go into any argument.

Key Points

Each box must:

- have a Declarative Sentence (DS) – no questions, no sentence fragments.
- contain only two main terms (2T) – look for indicator words and move other terms to separate boxes.
- contain No Reasoning (NR) – look for indicator words and convert prose reasoning into the argument map's lines and boxes.