Propositional Content

Let's revisit an old question: What is the meaning of a whole sentence?

Content: A name philosophers give to the information contained in a representation. (Sometimes this is taken to be a feature of the *representation* itself, other times a feature of *what is represented*).

Since there are two bearers of intentionality, there are two bearers of content:

> **Linguistic Content**: The content borne by language and/or its uses.
> **Mental Content**: The content borne by mental states like belief, desire, doubt, etc.

Two jobs an account of content is often expected to do:

> (a) Account for the *structural relations* between representations in a mental state (like a belief state).
> (b) Account for the *structural relations* between representations expressed by whole sentences.

Why think *one* thing could do *both*? Because of inferences like the following.

> Waheed said that there was a badger in the pantry.
> <u>Sasha believed that there was a badger in the pantry.</u>
> Sasha believed what Waheed said.

It looks like "what is said" (the content of language) is the same as "what is believed" (the content of thought). Philosophers call the entity which is the object of belief and assertion a **proposition**. Following Frege and Russell, philosophers often take propositions to have four key features.

> (I) They are *abstract*: they are not something which has a location in space and time.

> (II) They are *mind-independent*: the same proposition can be thought by two different people, and the proposition would "be there" regardless of whether anyone thought it.

> (III) They are *language-independent*: the same proposition can be expressed in two different languages.

> (IV) Propositions are *bearers of truth*: it makes sense to say of a proposition that it is true or not.

Two (of many) ways of thinking of propositions (which are not necessarily incompatible).

> - as a special, new kind of entity to be accommodated in our ontology.
> - as a kind of theoretical abstraction: a useful theoretical tool, like the idealizations of the physical sciences. (cf. "point masses" in physics, "phenotypes" in biology, etc.)

Truth Conditional Content & Possible Worlds

The information given by an uttered sentence seems to have **truth-conditions** in the sense of "conditions under which what it said would be true". Consider,

> (1) The first president of the US was a Virginian.

We can see that the proposition expressed by an utterance of this sentence could have been false, in two ways:

> - Imagine Washington died in battle and John Adams was elected instead. Now imagine someone *said* "The first president of the US was a Virginian". What they said seems to be the *same thing* someone would actually say using those words. Moreover what they say would be *false* (in their circumstances).

> - Similarly, we can consider counterfactual conditionals like "If Washington died in battle and John Adams was elected, then the first president of the US would have been a Virginian". The consequent of the conditional seems to express the same proposition as (1) relative to the circumstance given by the antecedent of the conditional. The whole conditional is false, because the information given by the proposition in those circumstances would be false.

So we can *model* the information contained in a *proposition* by specifying its truth-conditions: the circumstances under which it would be true. A popular way to do this now is by use of **possible worlds**.

> **Possible world**: a complete (usually consistent) way that the universe could have turned out.

A better name might have been: "a total possible state of the universe". How many such worlds are there? Well...

> - worlds where kangaroos are green.
> - worlds where the universe was and always is the size of a pea.
> - worlds where every person inexplicably stops for three minutes today to look at their shoes.

What are possible worlds, *really*?

> - a concrete entity just like the universe we are in, but inaccessible from it?
> - a kind of property. Like *being sixty feet tall*?
> - a purely theoretical abstraction?

Possible worlds are used for two main purposes:
>   (A) to help model *modal* notions (notions concerned with possibility and necessity)
>   (B) to help model *propositions*.

For example, there are "circumstances" under which (1) is true, and others under which it is false. We can think of each of these circumstances as a *possible world*.

> **Truth-conditional (possible worlds) proposition**:
> *A proposition can be identified with the set of possible worlds in which it is true.*

A sometimes helpful way of representing the relationships between truth-conditional propositions is by representing them with *venn diagrams* in *logical space*. Logical space is just the set of possible worlds, which is sometimes represented by a rectangle.
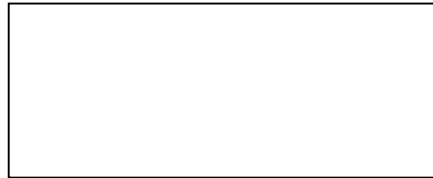
A proposition *p* is represented by "encircling" the worlds where it is true. This is done on the left. The relationship between multiple propositions can be shown by whether or not, and if so how, the propositions' truth conditions "overlap". See the right.
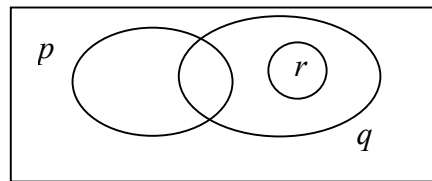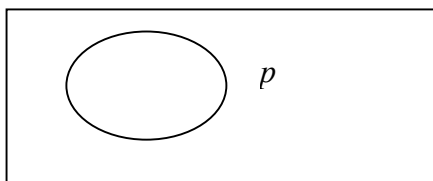
What do logical operations like "p or q", "p and q", "not p", look like?

Sometimes we'll want to state general conditions for semantical relations.

Let's say that a proposition p entails a proposition q just in case whenever p is true, q must be as well. What property will p and q have in a venn diagram if p entails q?

Let's say two propositions are *compatible* if they can both be true at the same time. What property will p and q have in a venn diagram if they are compatible?