What do names mean?

In this part of the course, we'll be comparing different theories of what names mean.

Examples of names:

- John
- France
- Barack Obama

1. How do we compare theories?

Example:

Aristotle vs. Galileo

In his *Physics* (book 4, part 2), Aristotle made a claim that went virtually unchallenged for two millennia (~300BC to ~1600AD).

He first observes that objects move more quickly through “thin” substances (such as air) than they do through “thick” substances (such as water).

He then claims that heavy objects move more quickly than light objects:

> Now the medium causes a difference because it impedes the moving thing, most of all if it is moving in the opposite direction, but in a secondary degree even if it is at rest; and especially a medium that is not easily divided, i.e. a medium that is somewhat dense. A, then, will move through B in time G, and through D, which is thinner, in time E (if the length of B is equal to D), in proportion to the density of the hindering body. For let B be water and D air; then by so much as air is thinner and more incorporeal than water, A will move through D faster than through B. Let the speed have the same ratio to the speed, then, that air has to water. Then if air is twice as thin, the body will traverse B in twice the time that it does D, and the time G will be twice the time E. And always, by so much as the medium is more incorporeal and less resistant and more easily divided, the faster will be the movement.
We see that bodies which have a greater impulse either of weight or of lightness, if they are alike in other respects, move faster over an equal space, and in the ratio which their magnitudes bear to each other.

If Aristotle’s theory of movement were correct, we’d expect heavy objects to fall faster than light objects. This is a prediction of his theory.

Remarkably, this prediction wasn’t properly tested till the 1600s, when (at least according to legend) Galileo Galilei simultaneously dropped a musket ball and a cannon ball from the Leaning Tower of Pisa:

Of course, both balls fell at the same speed, despite the cannon ball being much heavier.

Galileo’s experiment showed that Aristotle’s theory made an incorrect prediction.

That tells us that there must be something wrong with the theory. We either need to modify it to fix it up, or abandon the theory altogether and come up with a better one.

It works just the same way when we compare theories of names. We figure out what each theory predicts, and then check whether those predictions are correct. If the theory makes any incorrect predictions, there must be something wrong with it.
2. Bad news
Linguistics isn’t finished yet.

Every theory of names that’s ever been proposed makes some incorrect predictions.

So I can’t tell you what the correct theory of names is. But we can look at the advantages and disadvantages of the some of the theories that have been proposed. Linguists and philosophers still debate which is the best theory.

3. Theory I: The referential theory of names
This is such a simple theory that it’s hard to put a name to it, but one of its most famous advocates is the 19th century philosopher John Stuart Mill. He’s most famous as a moral and political philosopher (a strong proponent of utilitarianism).¹

Referential theory of names:
The meaning of a name is just the thing to which the name refers.

On Mill’s view, names serve as a convenient substitute for pointing.

For example, let’s suppose I want to express the fact that Barack Obama lives in the White House.

Option 1: Find Obama, point at him, and say “This guy here lives in the white house.”

(This would work, but it’s a little impractical.)

Option 2: Say “Barack Obama lives in the White House.”

¹ Utilitarianism is, roughly, the doctrine that the morally correct course of action is that which brings about the greatest happiness for the greatest number of people.
(Much easier. And according to Mill, when I say this sentence, I’m conveying exactly the same meaning as if I were pointing at Obama and saying “this guy here.”)

Metaphorically, we could say that every name is tied to a person or object by a piece of string. To find out the meaning of a name, you just follow the string until you get to the person or object in question.

**Exercise:** What’s your first impression of this theory of names? Does it jibe with your intuitions about what names mean, or did you already have a different view?

The referential theory of names seems intuitively appealing to many people, but unfortunately there are a few problems with it. Before coming to these, we’ll take a little detour.

### 4. Substitution

How can we know if two words or phrases have the same meaning?

Sometimes it’s just obvious. Everyone knows that “Barack Obama” doesn’t mean the same thing as “Hillary Clinton.” Similarly, everyone knows that “drink” means the same as “beverage.”

**Exercise:** Can you think of any pair of names which obviously have the same meaning?

Other times, we have to use a more subtle approach. For example, do you think that the following two phrases mean the same thing?

1. bachelor
2. unmarried man

They certainly seem to have a very similar meaning, but you may be unsure whether or not to say that they have *exactly the same* meaning.

Here’s an argument that they don’t mean the same thing. Compare the following two sentences:

1. *The Pope is an unmarried man.*
2. *The Pope is a bachelor.*

Many people have the intuition that (1) is true, whereas (2) is false. But surely, if “unmarried man” means *exactly the same thing* as bachelor, then (1) ought to mean *exactly the same thing* as (2) (since none of the other words are different).

But if two sentences have the same meaning, they can’t differ in truth -- either both are true, or both are false.
Thus, if (1) is true and (2) is false, it follows that *bachelor* can’t mean the same thing as *unmarried man*.

**The moral of the story:**
We have intuitions about whether sentences are true or false. We can use these intuitions to tests whether two words/phrases mean the same thing.

(The fancy name for this is “*substitution salva veritate*” -- substitution preserving truth. When we substituted *unmarried man* for *bachelor*, we found that this didn’t preserve the truth of the sentence.)

**Important:** If substitution *fails* to preserve truth, we can conclude that the two words/phrases have a different meaning. However, if it *does* preserve truth, we **cannot** conclude that the two phrases necessarily have the same meaning. We’ll see an example of this now.

**5. Problems with the referential theory**

**Problem 1: Identity statements**
Consider the following sentence:

> John Wayne is Marion Morrison

According to the referential theory, the names *John Wayne* and *Marion Morrison* have exactly the same meaning:
So, if we substitute one name for the other, it shouldn’t change the meaning:

1. John Wayne is Marion Morrison
2. John Wayne is John Wayne
3. Marion Morrison is Marion Morrison

Admittedly, this does seem to be a case of substitution *salva veritate*. Swapping John Wayne for Marion Morrison (and vice versa) has preserved the truth of (1).

Nonetheless, many people have an intuition that (1) is somehow different from (2) and (3). It seems that (2) and (3) couldn’t possibly be false -- you don’t need to know anything about John Wayne to know that John Wayne is John Wayne, and you don’t need to know anything about Marion Morrison to know that Marion Morrison is Marion Morrison.

But to verify that (1) is true, you need to know something about the world. Specifically, you need to know that Marion Morrison changed his name to John Wayne.

On this basis, many linguists and philosophers have argued that (1) cannot mean the same thing as (2) and (3). But the referential theory of names predicts -- incorrectly -- that (1), (2) and (3) should all mean the same thing.

**Problem 2: Names of fictional and non-existent entities**

What does the referential theory of names say about the following sentence?

1. Harry Potter likes orange juice.

Since Harry Potter doesn’t really exist, this name can’t really “point at” anything. Going back to the string metaphor, once we’ve tied one end of the string to the name “Harry Potter”, there just isn’t anything out there in the world to tie the other end to.

**Exercise:** If someone states (1), is the claim that they’re making true or false?

Whatever your answer to this question might be, the referential theory of names tells us that (1) isn’t really a claim at all, because there’s nothing for the claim to be a claim about. For this reason, according to the referential theory, (1) is neither true nor false.

That doesn’t seem like a bad result. Most people find it intuitively correct.²

But how about (2)?

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² That is, unless we’re talking about the claim that “in the imaginary world of J.K. Rowling’s stories, Harry Potter likes orange juice.” This claim could potentially be true or false (if e.g. we can find strong textual evidence that Harry likes or dislikes orange juice).
2. Santa Claus exists.

Once again, the referential theory predicts that (2) is neither true nor false. But this time, our intuitions clearly disagree: (2) is obviously false.

**Problem 3: Beliefs**

There is a whole host of difficult problems associated with sentences that describe people’s beliefs, and we can only touch on them in this course.

Recall that, according to most people’s intuitions, the following sentence is neither true nor false:

*Harry Potter likes orange juice.*

It seems, however, that the following sentence could well be true:

*Mary thinks that Harry Potter likes orange juice.*

How can this be? Mary can’t possibly think “that guy over there likes orange juice,” because there just isn’t any guy over there. So what exactly does she think? The referential theory of names doesn’t give us a satisfying answer.

We find a similar problem for “Mary thinks that Harry Potter exists.” This could well be true, if e.g. Mary is a small child.

### 6. Gottlob Frege

In the 19th century, the German mathematician and logician Gottlob Frege revolutionized the study of language.

Frege did this almost by accident. His main aim was to construct a precise language for making mathematical statements. However, many of Frege’s ideas turned out to be useful in the study of natural languages (i.e. French, English, Japanese, etc.)

The referential theory of names tells us that the meaning of a name is just the thing that it refers to. So for example, the meaning of the name John Wayne is
Frege agrees that the name *John Wayne* somehow points to [Image 396x702 to 428x720]. In his terminology, the “reference” of the name *John Wayne* is [Image 302x681 to 334x699].

However, Frege thinks that the meaning of a name is not its reference, but a description of its reference. So the meaning of *John Wayne* is not [Image 435x632 to 467x650], but rather a description of [Image 146x612 to 178x630].

We might describe John Wayne as “the actor who starred in the movie *The Searchers,*” or “the son of Clyde Leonard Morrison of Iowa.”

Since we can describe the same person or object in many different ways, it’s possible for two names to have different meanings but still have the same reference. Imagine the case of Mary, who went to school with Marion Morrison, but has no idea that he is the same person as John Wayne. Mary might have the following meanings for each name:

<table>
<thead>
<tr>
<th>Name</th>
<th>Meaning</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marion Morrison</td>
<td>The guy I sat next to in 8th grade English class.</td>
<td></td>
</tr>
<tr>
<td>John Wayne</td>
<td>The star of the movie <em>The Searchers.</em></td>
<td></td>
</tr>
</tbody>
</table>

*The meanings, from Mary’s point of view, of ‘Marion Morrison’ and ‘John Wayne’.*

With this example in mind, let’s go back to the first problem we found with the referential theory of names:

*John Wayne is Marion Morrison.*  
*John Wayne is John Wayne.*  
*Marion Morrison is Marion Morrison.*

Remember that Frege says that the meaning of the name is a description. So let’s try substituting the descriptions for the names:

*The star of the movie ‘The Searchers’ is the guy I sat next to in 8th grade English class.*  
*The star of the movie ‘The Searchers’ is the star of the movie ‘The Searchers’*  
*The guy I sat next to in 8th grade English class is the guy I sat next to in 8th grade English class.*

This seems like a nice result. It’s now easy to see why the first sentence is different from the second and the third. Although *John Wayne* and *Marion Morrison* have the same reference, they have different meanings. This explains why the first sentence is
potentially informative -- that is, why Mary might be surprised to hear it -- whereas the other two are merely tautological.

In other words, If A means the same thing as B, then it’s not informative to be told “A is B.” But if A and B have different meanings, the statement “A is B” might tell you something that you don’t know already.

**Interim Summary:**
Frege’s theory of names seems to have dealt with one of the major problems that faced the referential theory. The referential theory incorrectly predicted that “John Wayne is Marion Morrison” means the same as “John Wayne is John Wayne.” Frege’s theory doesn’t fall into this trap.

What about the second and third problems that we looked at above (existential statements and statements about what people believe)? Those will have to wait for a little bit until we learn some more about descriptions themselves.

### 7. Problems with Frege’s theory

**Problem A: Finding a uniquely identifying description**
Frege says that the meaning of a name is a description of the name’s reference. This description is required to identify precisely *one* person or object. For example, the following is no good as a description for Barack Obama:

![The former Illinois Senator](attachment:image.png)

**Exercise:** Why not?

Writing a uniquely identifying description can be tough. Try doing it for each of the following people (listed in approximate order of difficulty):
Hillary Clinton
Albert Einstein
Julius Caesar
Louis XVI
Leonardo da Vinci
Plato

Perhaps you were unable to give a uniquely identifying description for Plato. Does that mean you don’t know the meaning of the word “Plato”? Two possible answers:

• Yes. If you really don’t know anything about Plato, then the word “Plato” means about as much to you as the (meaningless) word “flub.”

• No. There are many people who can’t uniquely identify Plato, but who can talk about Plato without any difficulty. For example, they might say “I know nothing about Plato, but I’d like to read him some day.” This suggests that they know the meaning of the word “Plato,” even if they know virtually nothing about Plato himself.

Exercise: Which answer do you think is right?

There’s another issue here. It’s likely that you and your classmate(s) didn’t give the same description for Plato, or for any of the other names.

Exercise: Does that mean that the name “Plato” has a different meaning for each of you?

Problem B: Contradicting yourself
Some statements are self-contradictory. For example, anyone who says (1) must be confused:

John and Mary have four children, and all three of their children are noisy.

There turns out to be a problem with Frege’s theory of names that’s related to self-contradiction. Let’s first cook up a description of Plato:

↔ The author of The Republic
That description seems a pretty good candidate for the meaning of the name “Plato.” But now compare the following sentences:

 Plato is the author of ‘The Republic.’
 The author of ‘The Republic’ is the author of ‘The Republic.’

**Exercise:** Do you see a problem here for Frege’s theory of names?

**8. Bertrand Russell and descriptions**
Russell was greatly influenced by Frege. He first made a name for himself by pointing out a problem with Frege’s system of logic (Russell’s paradox).

Russell thought that Frege’s theory of names was basically on the right track. But he attempted to improve on it using an ingenious analysis of descriptions. So far, we’ve heard the idea that the meaning of a name is a description, but we haven’t heard any proposals about what descriptions themselves mean.

Russell was concerned with definite descriptions, which are just the kind of descriptions we’ve seen so far. They begin (in English) with “the”, and they identify a unique individual.

To understand Russell’s proposal, it’s easiest to start with an example:

1. The current President of the USA is a man.
2. There is one and only one person who is President of the USA, and that person is a man.
Russell’s claim was that (1) and (2) mean the same thing. This makes explicit what’s “definite” about definite descriptions. There has to be one person, and one person only, who matches the description.

Armed with Russell’s analysis of definite descriptions, we can return to problems 2 and 3 above.

**Problem 2: Names of fictional and non-existent entities**

We’ll need a description for the meaning of the name *Santa Claus*. Let’s use “the person who brings children presents at Christmas on a sleigh.”

\[
\text{Santa Claus exists.} \\
\text{REPLACE NAME WITH DESCRIPTION} \\
\text{The person who brings children presents at Christmas on a sleigh exists.} \\
\text{USE RUSSELL’S ANALYSIS OF WHAT THE DESCRIPTION MEANS} \\
\text{There is one and only one person who brings children presents at Christmas on a sleigh, and that person exists.}
\]

The final sentence we’ve obtained breaks down into two parts:

\[
\text{There is one and only one person who brings children presents at Christmas using a sleigh} \\
\text{AND} \\
\text{that person exists}
\]

We needn’t worry about the second part, because the first part is clearly false. Therefore, the sentence as a whole is false.

This is a nice result: Russell’s analysis predicts that the sentence “Santa Claus exists” is false. That’s exactly what our intuition tells us. On the other hand, the referential theory predicts that the sentence is neither true nor false.

So, whereas the referential theory of names makes an incorrect prediction in this case, Frege’s theory -- upgraded with Russell’s analysis of definite descriptions -- makes the correct prediction.

But maybe it’s not all good news. What about “Harry Potter likes orange juice?”

For a description of Harry Potter, let’s take “the person whose parents were murdered by Lord Voldemort.”
Harry Potter likes orange juice.
REPLACE NAME WITH DESCRIPTION
↓
The person whose parents were murdered by Lord Voldemort likes orange juice.
USE RUSSELL’S ANALYSIS OF WHAT THE DESCRIPTION MEANS
↓
There is one and only one person whose parents were murdered by Lord Voldemort and that person likes orange juice.

The sentence is clearly false under Russell’s analysis -- Lord Voldemort is a fictional character, so there obviously cannot be anyone who has actually been murdered by him.

Russell himself thought this was the right conclusion. He used as his example the following sentence:

The present King of France is bald.
There is one and only one present king of France, and he is bald.

As before, Russell’s translation of the original sentence clearly comes out false, since there is no present King of France.

Exercise: Do you agree with Russell that the following sentences are false?

• Harry Potter likes orange juice
• The present King of France is bald.

(You might not come to the same conclusion for both sentences.)

Problem 3:
Russell had an ingenious solution to problem 3.³ This takes us into more difficulty territory, and you aren’t required to know any of the following for the purposes of LING 200.

Let’s look at one of the problematic sentences that came up before:

Mary thinks that Harry Potter exists

On Russell’s view, this translates as follows:

³ In fact, Frege had already proposed a solution to problem 3 (which we’ll have to skip over for lack of time), but Russell thought that his was better.
Mary thinks that Harry Potter exists
REPLACE NAME WITH DESCRIPTION
↓
Mary thinks that the person whose parents were murdered by Lord Voldemort exists.
USE RUSSELL’S ANALYSIS OF WHAT THE DESCRIPTION MEANS
↓
Mary thinks that there is one and only one person whose parents were murdered by Lord Voldemort and that this person exists.

This seems to give a much better result than the referential theory of names. The problem with this theory was that we couldn’t find anything to point at. We knew that Mary believed that someone existed, but we couldn’t point at that person (because whatever Mary might think, the person in question doesn’t actually exist).

When we look at the “translation” of this sentence given by the Frege/Russell theory of names, this problem doesn’t seem to arise. Instead, we seem to have a pretty accurate description of what Mary believes.

9. Saul Kripke
The Frege/Russell theory of names was very popular well into the 20th century. The theory was appealing because it seemed to offer an elegant solution to the problem posed by identity statements, the problem posed by “empty names” (e.g. Santa Claus), and the problem posed by statements about beliefs.

However, as we’ve seen, it’s often very hard to write a uniquely identifying description for a name. There are basically two reasons for this:

• We may not know enough about the person to identify them uniquely.
• We may not be sufficiently sure of certain facts about the person to include them as hard-and-fast requirements in the description.

As an example of the second kind of problem, consider our description of Plato as “the author of The Republic.” We surely wish to allow for the possibility that Plato might not have written this work. But if the meaning of the name Plato really is “the author of The Republic”, then by definition, anyone who did not write The Republic is not Plato.

This seems incorrect. If, for example, there was an Ancient Greek philosopher who wrote all the works normally attributed to Plato except for The Republic, this person would surely be a good candidate for the reference of the name Plato.

The philosopher John Searle noticed this problem and proposed a solution. He suggested that the meaning of a name is not a precise description of its reference, but
rather a list of properties which the reference probably has. So for Plato, we might have something like the following list:

- Athenian born around 428BC.
- Author of *The Republic*.
- Author of *Phaedo*.
- Author of ...
- The most famous pupil of Socrates.
- ...

According to Searle, the reference of the name *Plato* is the individual who comes closest to meeting this list of requirements.⁴

Now suppose that, as a matter of fact, there was never any individual in history who met all the requirements in the list above. According to the Frege/Russell theory, we would then have to say that Plato never existed. In contrast, Searle will affirm Plato’s existence just as long as there is some individual in history who meets a good portion of the requirements in the list. So for example, if there were a person meeting all the requirements above except for that of being Athenian, then this man, according to Searle, would be the reference of the name *Plato*.

Saul Kripke didn’t think Searle succeeded in fixing this problem with the Frege/Russell theory.

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⁴ Presumably, if no-one comes anywhere near close to meeting all of the requirements, Searle would say that *Plato* is an empty name.
Kripke argued that names are “rigid designators.” A rigid designator is a word or phrase which picks out the same individual in all possible worlds.

Let’s start with an example of a kind of phrase that clearly isn’t a rigid designator -- a description. The phrase “The current President of the USA” happens to pick out Barack Obama in the real world. But there are other possible worlds in which this phrase would pick out a different individual. The most obvious example would be the world in which John McCain won the previous election.

In a series of lectures given in 1970 (titled Naming and Necessity), Kripke dropped an intuition bomb on the Frege/Russell theory. Consider the list of properties we’ve just given for Plato. Kripke says: “don’t you think that Plato could have had none of those properties and yet still have been Plato?” Let’s take just one of the properties as an example. We think that Plato is the most famous pupil of Socrates. However, we can imagine a possible world in which Plato never really knew Socrates, and was merely pretending to be his pupil. If we go through the other properties in the list, we can do play the same trick. It’s always possible that we could be mistaken about some aspect of Plato’s life.

Now, if Plato can still be Plato even if he has none of the properties in the list, then the list can’t determine the reference of the name Plato. To put it another way, if names are rigid designators but descriptions are not, then the meaning of a name can’t be a description.

On the basis of this argument, Kripke rejects the Frege/Russell theory of names, and advocates a return to the referential theory. Names, he says, pick out a particular individual, and pick out the same individual in all possible worlds.

This idea is easier to understand with reference to a concrete example. Let’s go back to Barack Obama. Kripke is essentially saying that Barack Obama would be exactly the same guy whether or not he’d won the presidential election.

There are two important things to note at this point:

- You may disagree with Kripke’s intuitions. If so, you probably won’t find his argument very persuasive.
- Kripke has pointed out a potentially serious problem for the Frege/Russell theory of names, but he has done nothing to solve any of the problems that the referential theory faces.

[In later work, Kripke did try to fix some of the problems with the referential theory (see above). Unfortunately, we do not have time to go through this material in class.]