## Stealing the Voice

by Sven Nilsen, 2022

In this paper I give some thought experiments to start a debate about how informal imaginary paradoxical reasoning works. The underlying hypothesis in this paper is called "stealing the voice" which is about how one can use language tricks to make something sound like being true or false from different perspectives and how this relates to paradoxical reasoning.

Alice says "this sentence is false" (This is the famous Liar's paradox<sup>[1]</sup>). Bob comes and says "what Alice says is absurd".

In the paper "Semantics of Falsehood", I speculated about imaginary paradoxical reasoning<sup>[2]</sup>. Forget Alice's statement a moment and think about Bob's statement instead.

Do you think what Bob says is true? Do you think it is obviously true? Write the answer down.

Now, I will change the thought experiment slightly:

Bob comes and says "what Alice says is a paradox".

Do you think what Bob says is true? Do you think it is obviously true? Write the answer down.

Again, I will change the thought experiment slightly:

Bob comes and says "what Alice says is false".

Do you think what Bob says is true? Do you think it is obviously true? Write the answer down.

Humans perceive Bob's statements as varying truths, e.g. `50%, 100%, 0%`. What happens in the latter case is what I call "Stealing the Voice". Bob's statement sounds like it is confirming what Alice says, even though Bob could use the words "paradox", or the less obvious "absurd", to clarify what he means. Instead, when he says "false", it is turns into something that one can interpret in the "voice" of Alice, which is a shorthand for Alice's way of thinking, reasoning and communicating.

Which voice is stolen? Bob's voice. Who steals it? Alice.

Does Alice steal Bob's voice knowingly? Not necessarily, it happens after Alice says something.

Sometimes, states officially use propaganda<sup>[3]</sup> to knowingly steal people's voice by framing particular views in a way where they sound more susceptible or uncertain, often in advance of these views being voiced publicly. For example, to make it more susceptible to the public how a scientist conducts research to reveal corruption, because corruption is often used to buy political power and undermine opposition that is predicted in advance based on its own knowingly corrupt activity.

However, to put off efficient propaganda in a such way, humans need to reason, as about paradoxes. The same mechanism that happens in the Liar's paradox, which makes it a subject of informal imaginary paradoxical reasoning, is used in propaganda to suppress people's ability to think clearly about important topics concerning society. This is a difficult thing to do, precisely that propaganda must be put in place to pave way for social control at later times, such that particular views are undermined while not undermining those views favored by those who design the propaganda.

I am not criticizing propaganda here, I am merely using it as an example of paradoxical reasoning.

In order for propaganda to be efficient, it needs to steal the voice in a way that people do not easily notice. This is where paradoxical reasoning comes in. In Bob's case, when he uses the word "false" instead of "paradox", the imaginary paradoxical reasoning becomes possible. Formally, one can prove using HOOO Exponential Propositions that Bob's use of "false" and "paradox" means the same thing<sup>[2]</sup>.

false^x

Here, it says that `x` proves `false` without any further assumptions. This is also the formal statement that `x` is a paradox.

What is unusual about HOOO Exponential Propositions is that paradoxes and statements of falsehood is essentially the same thing.

In the sense Bob says "what Alice says is false", is also the same sense in which Bob says "what Alice says is a paradox". This might seem unintuitive at first. However, this is because humans are used to think about paradoxes in an imaginary way. When you think about paradoxes formally using HOOO Exponential Propositions, the sense in which something is a paradox is also the same meaning as when we say something is false informally. When humans say something is a paradox informally, it sounds like something else, which is considered fascinating and mysterious. That imaginary way humans think about paradoxes informally sounds more obviously true, but is misleading because it suppresses reasoning about paradoxes properly in formal logical form.

The problem here, is not about how to explain that "false" and "paradox" can mean the same thing. This was solved formally using HOOO Exponential Propositions. I just assume that this extension to normal logic works out, even nobody at this point knows for sure. The problem here, is to explain informally how humans construct their imaginary way of paradoxical reasoning.

The "Stealing the Voice" hypothesis is about describing precisely how humans perceive paradoxes informally, in a such way that it gets the imaginary meaning that is usually attributed to paradoxes.

Here is another thought experiment:

The burrowing owl<sup>[4]</sup> nests and roosts in burrows, such as those excavated by prairie dogs. One remarkable capability of the burrowing owl is its ability to imitate the sound of a rattlesnake.

Now, it seems intuitive that the burrowing owl has "stolen the voice" of the rattlesnake. However, does that mean that the sound that a rattlesnake makes when threatened, "belongs to" rattlesnakes in some sense? What if one day scientists discover that the rattlesnake imitates yet another species that is now extinct? What if scientists discover that the sound comes from a completely unexpected source?

Prior to the discovery of a such third source, it seems obvious that the burrowing owl "steals the voice" of the rattlesnake. After the third source is discovered, a new possibility opens ups: The owl might have gotten its sound from the same third source as the rattlesnake.

What I did here was nuancing the thought experiment where one goes from a very clear example of "stealing the voice" to another hidden level. In the thought experiment with Alice and Bob, it is not clear to humans that Alice has stolen Bob's voice. Once you get used to the idea of the ability to make something else being said sound different from how it is intended, you quickly realize that

this phenomena can have a sophisticated mathematical structure. In normal logic, which is context free<sup>[5]</sup>, an expression can not change meaning based on which other expressions are assumed. However, in HOOO Exponential Propositions, the context is part of an expression. This gives an added depth of meaning to statements. Formal paradoxical reasoning has this property, that the context becomes more important because one is talking about context within expressions.

The Liar's paradox, "this sentence is false", manipulates the context using self-reference. Through a similar mechanism, humans can construct ideas that manipulates the context of statements being said in the future, by propagating ideas into the listeners beforehand. That is the trick used in propaganda.

Here is another example:

Some people believe that the smile of Mona Lisa<sup>[6]</sup>, painted by Leonardo Da Vinci, hides a secret.

It is unclear whether they mean that the painting itself hides a secret, or whether they mean the person that Leonardo Da Vinci painted, hides a secret. Anyway, in the possible future where something new and surprising is discovered about the Mona Lisa, it seems likely that people who believed there was a secret might connect the dots to their previous beliefs.

In reality, Leonardo Da Vinci might never have intended to paint the smile of Mona Lisa in a such way that it seems to hint at a secret. This can be true regardless of whether there is a secret or not. However, just because people believe there might be a secret and spread these beliefs around,



they kind of "steal the voice" of that future, possible secret. The secret is no longer understood intuitively on its own, but through the lens of a self-fulfilling prophecy.

Through these thought experiments, I hope that people are able to start recognizing situations where "Stealing the Voice" happens. While this hypothesis might explain how humans intuitively think about paradoxes such as the Liar's paradox, it was my intention in this paper to explain in more depth how this hypothesis applies in various cases and scenarios where it seemingly has nothing to do with paradoxes. This way, it becomes clearer what the difference is between imaginary paradoxical reasoning and the underlying hypothesis. By using more examples of this kind of reasoning, it might also get easier to accept the possibility that humans might often be wrong about falsehood itself.

## **References:**

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