Do we all share an internal language?

Often, the most natural way to introduce a topic is with a thought experiment. This is exactly what I would like to do. Imagine, it's your holiday, and you are visiting the Eiffel Tower. It's late at night, there aren't many people around anymore, everybody has left. You look up to the Eiffel tower and see two people standing up there. However, what you have noticed by observing their body language, is that they seem to be in an argument, and you notice things are escalating rather quickly. In the heat of the moment, person A tries to punch person B, but person A misses, and person B, being furious, pushes person A, and he falls right of the Eiffel tower, to the ground.

The next morning, it's in the New York times: A Frenchman named Jacque has killed another Frenchman by pushing him off the Eiffel tower. Jake, an (English speaking) American citizen reads this news early in the morning, two days later.

Now, Jacque and Jake speak different lanuages(French and English), and perhaps you speak a different native language too. However, it seems like all three of you believe the same thing: A Frenchman has been pushed by another Frenchman off the Eiffel tower. That you all believe the same thing would suggest that there is something that is shared accross your brains (or minds!); something that is the identical in the three of you. But is there really such a thing? Is the belief that "A frenchman has pushed another Frenchman of the Eiffel tower" the same belief if it was in French? Or in Chinese? Italian? Or is it so that there a difference between these beliefs?

Now, let's look at the qoute I haven chosen. It is from Aristotle's. It goes:

> *"Spoken sounds are symbols of affections in the soul, and written marks symbols of spoken sounds. And just as written marks are not the same for all men, neither are spoken sounds. But what these are in the first place signs of –affections of the soul- are the same for all; and what these affections are likeness of –actual things– are also the same."*

> *Aristotle, De Interpretatione, 16 a2*

Now, I'll first do a quick explaination/my interpretation this qoute. First, Aristotle believes spoken languages are symbols based on what is going on in our mind. Writen languages, are on their own based on spoken languages. Now, where this gets interresting, is Aristotle claiming that although written languages and spoken languages are different across people, our "affections of the soul are the same for all". In other words, we all share some mental states(mental states are things such as believing, hoping, doubting).

Apparantly, Aristotle does seem to believe that, accros our minds/brains/souls, if we believe the same thing in different languages, there is something shared in our minds/brains/souls. This belief, that we would share, would be "written" in what we would call a **"internal language".** Why this belief would need to be in an internal language, we'll get to quickly.

In this essay, I will try to consider both the arguments for and against such an internal language. The notion has been both broadly critized and praised, and here we will look at the most important arguments for it, but also at some of the argumenst against it. My plan with this essay goes as follows: First, we will explore what the notion of an internal language really is. After that, we will look at the most important argument why there should be such an internal language, and we will also try to deal with the many criticisms it has gotten. In the end, I will look at which arguments have convinced me the most, and based on them I will make a conclusion.

Often in the philsophy of mind, it's easy to make an analogy between human and computer; which is exactly what I will do here. The computer I am using now, has the operating system Windows. A truth thing is, Windows is actually written in the programming language C++. In other words, this computer runs on the programming language named C++. This language "tells" the hardware in which order to do what calculations (and what calculations), where the calculations are the fundaments of many different computer processes. In other words, C++ allows the computer to do such computer processes.

Now, in the analogy between computer and human, we could ask is there also such a "programming language" for humans(I've put programming language between quotation marks, because frankly, I am not going to consider the idea that humans were programmed.) Another way to phrase this question is, is the question: Is there a language we "run on"?

Some philosophers say: "Yes!". They call this the *internal language* of humans, sometimes called *mentalese*. This the language our mental states are "written in". What they claim, is that our thougths are internal representations of the outside world. In the Aristotle's qoute, he claims "*and what these affections are likeness of –actual things– are also the same*". He claims these "affections" in the soul have likeness of things in the outside world(actual things). For instance, the though of my watch lying there is an internal representation of my actualy watch that lies there. The thought of the computer screen I am writing on is an internal representation of the actual computer screen. But, so the philosophers say, there is no representation without a language the representation is in. In other words, the mental representation I have(of the watch, of the screen) must be in a certain language.

This was a just short explanation of why philosophers (and people from other fields such as psychology, artifical intelligence and neuroscience) believe why there must be such an internal language. We will get to the more technical actual arguments later.

 There are also those who believe there is indeed an internal language, however, this language is a natural language, they say. What they claim is, if I had learned Spanish as first language, my mind would "run on" Spanish. If I had learned Korean as first language, I would "run on" Korean. This is a tempting philosophical/psychological position, because of it's extreme simpleness: There is no need for a different internal mental language! We will actually come back to this position later, where we will look if this position can really hold.

The field of Artificial Intelligence (AI) actually heavily relies on the idea that there is such a (non-natural) internal language. What the the field of AI tries to achieve, is to create an "intelligent"(whatever that means) computer. To achieve this, they very often look at how the brain/mind works; by stealing the design of a human mind/brain, we can use this desing to make our computer intelligent. However, AI also goes the other way around: The mind is studied with the computer. What is attempted, is to make computer models that imitate the mind, and by analyzing the computer model, we learn about the mind. However, as we know, the computer model is written in a programming language. Often it is thought that if a computer model can imitate the mind/brain so closely, the mind could very well have a internal langauge as well.

There are also philosophers who do not agree that our minds need a language in which they do their "calculations"/thougt processes. Of them, it is Danniel Dennet who is the most well known. He claims that it is perfectly possible that thought proccesses and human reasoning exist without such an internal language. The problem with this position, is that although as far as we know this position is quite viable, the only problem we would have is that we wouldn't be as sure how the mind would work then. So far, there have not been proposed to make a model of human intelligence that doesn't have some kind of internal language.

Now that we have gotten a bit of a sense what this internal language really is, let's look at the most important (formal) argument why there must be such an internal language. The argument itself is rather technical, and it took me a while to understand, but I will try to make it as comprehendable as possible. The argument that we are about to discuss was proposed by the philosopher Frodor (if I am not mistaken).

First, let's look at the language we speak everyday. The sentences we say, can be either truth or false, of course. Often, a sentence can be broken in two parts: An object and a description(the formal term being *predicate*). Together these make a sentence that is true or false. To give an example, in the sentence "the book is on the table", the book is the object, and "is on the table" is the description. In "My shirt is red", "my shirt" is the object and "is red" is the description.

Now, the assumption that is made in the argument, is that when we learn a certain language, we also learn for which objects a description is true, and for which false. I learned that the sentence "x is an apple" is true, if the object x really is an apple. I learned that the sentence "x is my brother" is false, if the object x is my sister. Simple, right? This is sometimes called a *truth rule*. The rule which determines wether a description of an object is true or false.

Now, lets analyze the example ""x is my brother" is false, if x is my sister". We determine the truth of the description "x is my brother" is based on the condition that <u>x really is my brother</u>.

But the condition *x really is my brother* is also a "sentence" in a language, right? If not a sentence, what would *x really is my brother be*? In other words, the truth of a sentence in a natural language must actually be based on a description in a language on itself. (When learning a natural language, this cannot be the natural language itself that is based on, because that would be circular). Now, at first it seemed to me, this argument sounds like it would imply infinite regress! If the truth of a description in every language requires the description in another languages, don't we keep going on and on and on?

We are now going to look at the arguments against the existence of an internal language, starting with that one mentioned above. This counterargument claims that the argument made above causes infinite regress, because the truth of a description in a language requires the description in some other languages. However, I will now try to demonstrate that this is, in fact, not the case.

This is because we only need to know when certain descriptions are true or false in a language when we are *learning* that language. When we already know for what objects the description is true, we don't need to refer to another language. Because we are born with the internal language, we don't need to learn it. Thus, because we don't need to learn it, we don't need to learn for what objects the descriptions are true(the truth rules). And for exactly that reason there is no infinte regress, because we only need to refer to another language when learning for what objects these descriptions/predicates hold. The truth rules in our internal language are not based on some other language, but our "given" by us at birth, the philsophers claim!

Now, let's look at a second argument against an internal language: It's not the easiest theory. Like before mentioned, some philosophers/psychologists believe that we, as internal language, have a natural language (such as French or German or Italian). They claim that this is a better theory based on the idea of *ockham's razor*: A theory should explain as much as possible with as few as possible *things*. In other words, the easiest(the one which attributes the existence of as few as possible *things*) explanation is the best (as long as they explain the same amount of things). And believing there are justs natural languages, which we also use for thinking, is a lot easier then believing that we have both a natural and an internal language. So, they claim, the theory that our internal language is a natural language is the best!

However, this position fails to account for some things. Think of a little baby, who cannot talk yet. Surely, we can already signs of intelligence (or at the least, thought processes) in the baby, right? Or think of many animals, that don't have a language that they use to speak which each other. Almost all animals also show signs of intelligent behavoir. Both the baby and the animals seem to at least have thought processes, while not having learned a natural language.

But, according to the notion that our internal language is a natural language, that is impossible. If our internal language and our natural language are the same, then without natural language we wouldn't have a internal language, but that would mean we wouldn't have thought processes! John Locke came up with this argument in his book the Limits of Human Understanding, and it's a simple, but very effective argument.

Of course, it is possible to say that baby's or aspecially animals have something else that allows them to have thought processes. But by doing this, there must also be an explanation *how* baby's and animals have these thought processes then. And this leads us right back to where we started with our argument: Ockham's razor. Because having to find an explanation for why baby's and animals seem to have though processes now, makes the theory that our internal language is a natural language a lot less "easier" then just believing we share an internal language with baby's and perhaps also animals(if animals don't have their own version of an internal language).

This brings us to the end of my essay. In this essay, we have discussed to question wether humans all have a shared language, which we use to think. The first thing we did, was looking at what an internal language really is, the analogy it has with programming languages and the use in AI of the notion of an internal language. After that, we looked at a very effective argument in favor of the idea of an internal language, where the argument claimed that another language I required to learn a language, and that the internal language is the language we typically use for that. Then, we looked at the arguments against the internal language, namely that it would cause infinte regress or that it is not the easiest explanation, but we found that both arguments didn't really hold.

In the end, I have convinced myself that such an internal language must exist. The argument for an internal language was rather strong, and the arguments against it both could be rejected. In the end I hope that I was also as convincing to you, the reader, as well.