

## On Wittgenstein on Translation

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### Abstract

Proposition 4.025 of the Tractatus describes translation as replacing each word in the original language text with its target language counterpart. This requires a one-one correspondence between vocabularies of the two languages, which never transpires in real life. I argue that Wittgenstein's remark should be read as articulating the theory of language which he promoted in the Tractatus: it tells us what translation looks like when that theory applies under ideal conditions. I then propose an account for the difference between translation in real life and translation as described by Wittgenstein. The account draws on the fact that language has a communicative function in addition to its representative function.

Translation is one of the topics Wittgenstein touched on in the Tractatus. Here is what he said. (I will use the English translation by Michael Beaney (Wittgenstein 2023), and will present the English version of the propositions quoted from the Tractatus in square brackets.)

4.025

Die Übersetzung einer Sprache in eine andere geht nicht so vor sich, dass man jeden Satz der einen in einen Satz der anderen übersetzt, sondern nur die Satzbestandteile werden übersetzt. (Und das Wörterbuch übersetzt nicht nur Substantiva, sondern auch Zeit-, Eigenschafts- und Bindewörter etc., und es behandelt sie alle gleich.) [The translation of one language into another does not proceed by translating every proposition of one into a proposition of another, but only the constituents of the proposition are. (And the dictionary translates not only substantives but also verbs, adjectives, and conjunctions, etc.; and it treats them all alike.)]

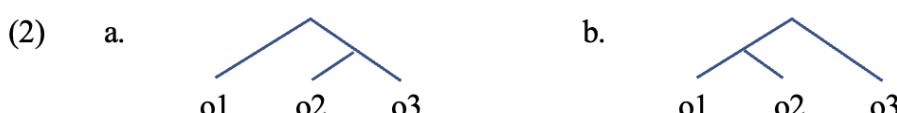
This description makes translation out to be a very dull and trivial exercise: substitute each word in the original language with its counterpart in the target language. Of course, we know this is not reality. The question is then why Wittgenstein said what he said. One possible answer is that he had no idea about translation. This I find hard to believe. Wittgenstein spoke German and English, and it is known that he translated some of his texts from German to English himself. He must have seen, immediately, that he could not just replace one word with another. Another possibility is that 4.025 is a joke which is part of a bigger joke that is the whole book. While I am not ruling out this 'resolute reading' of Wittgenstein's text (cf. Conant 1989, Diamond 1991), mostly because

I don't think I know enough about it, I do want to explore a third possibility. I propose we read 4.025 as describing not what translation is but what it is supposed to be if language works the way it is supposed to work. The Tractatus promotes a specific view on language: the so-called 'Picture Theory of Language', henceforth PTL (Anscombe 1959, Hintikka 2000). One way to articulate a theory is to say how things look if it is true. I submit that 4.025 articulates PTL in this sense: it tells us how translation looks if PTL is true. I will now turn to a short exposition of PTL, using a set of terms which largely but not completely overlaps with Wittgenstein's nomenclature in the Tractatus.

The basic idea of PTL is that language can represent reality in essentially the same way musical notation can represent sonatas and symphonies. There is a one-one correspondence between the basic building blocks of language, i.e. the 'words', and the basic building blocks of reality, i.e. the 'objects'. The 'form' of a word determines how it can combine with other words, just as the 'form' of an object determines how it can combine with other objects. Importantly, a word and the object it represents share the same form, which means that words and objects are embedded in the same space of combinatorial possibilities. To each combination of words there exists a structurally identical combination of corresponding objects. Suppose, for example, that the words  $w_1, w_2, w_3$  represent the objects  $o_1, o_2, o_3$ , respectively, and furthermore, that the forms of these words allow for the combination (1a) but do not allow for the combination (1b).



Then it will be the case that the combination of objects in (2a) is possible but not that in (2b).



A legitimate combination of words, i.e. one in which the words 'fit together' by virtue of their forms, is a 'sentence'. A combination of words which do not fit

together is 'gibberish'. A combination of objects is a 'situation'. There is, of course, no extra-linguistic counterpart of 'gibberish', as there can be no combination of objects which do not fit together. A sentence depicts a situation by the words being structurally related to each other in the sentence the same way the objects represented by these words are structurally related to each other in the situation. Thus, sentence (1a) depicts situation (2a). The words, each of which comes with its form, determine the set of legitimate word combinations, i.e. the set of sentences. Call this set the 'language'. The objects, each of which comes with its form, determine the set of all situations. Call this set 'logical space'. Since words and objects share the same form, language and logical space are isomorphic in the same way two combinatorial systems, i.e. two algebras, are. A 'maximal situation', i.e. one in which every object is present, is a 'possible world', or more simply, a 'world'. There is one distinguished world in logical space which is not merely possible but also 'actual'. If a sentence depicts a situation which is part of the actual world, the sentence is 'true'. Otherwise it is 'false'. We use language to 'provide information', i.e. to locate the actual world in logical space. This means when we 'say that  $\varphi$ ', we perform at least two acts: (i) presenting the situation depicted by  $\varphi$  and (ii) claiming that that situation is part of the actual world. Thus, 'saying that  $\varphi$ ' is the same as 'saying that  $[\varphi]$  is true'. Note, incidentally, that under the view of language as a combinatorial system isomorphic to logical space, 'inference rules' become superfluous, in the sense that they cannot be violated: [Mary walks] is guaranteed to be true if [John sleeps and Mary walks] is true in the same way the situation in which Mary walks is guaranteed to be part of the actual world if the situation in which John sleeps and Mary walks is part of the actual world.

### 5.473

Die Logik muss für sich selber sorgen [...]. Wir können uns, in gewissem Sinne, nicht in der Logik irren. [Logic must take care of itself [...]. In a certain sense we cannot make mistakes in logic.]

Let us now turn to the concept of 'translation'. I think we can agree on the following characterization of it: translating means saying the same thing in another language. Thus, translation requires there be exactly one logical space and at least two languages. Saying the same thing means claiming of the same situation that it is part of the same actual world. That would be impossible if

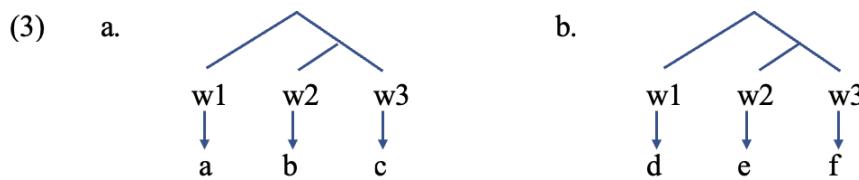
speaker and hearer dwell in different logical spaces. And there would, trivially, be no translation if there is only one language. But I have presented PTL as a theory about 'language', not one about 'languages'. How do we square PTL with Wittgenstein's remark in 4.025? To resolve this question, I propose we assign two readings to the term 'language' used by Wittgenstein in the Tractatus: it can either mean any symbolic system which is isomorphic to logical space, or it can mean a symbolic system which is isomorphic to logical space. Understood in the first sense, there is only one language: it is what is common to all symbolic systems isomorphic to logical space. Understood in the second sense, there can be more than one, perhaps infinitely many, languages. Now, isomorphy is an equivalence relation. That means that if two symbolic systems are isomorphic to logical form, they are isomorphic to each other. Thus, different languages are isomorphic to each other. The question then arises as to what the difference between them consists in. What distinguishes one language from another? Suppose  $L$  and  $L'$  are two different languages. Since they are isomorphic to each other and to logical space, a word  $w$  in  $L$  corresponds to a word  $w'$  in  $L'$  which is of the same form, and both  $w$  and  $w'$  correspond to an object  $o$  in logical space which is also of the same form. If a word is exhaustively identified by its form and denotation (i.e. the object it represents),  $w$  and  $w'$  would be identical, and since we have chosen  $w$  and  $w'$  arbitrarily, this holds for all words in  $L$  and  $L'$ , which means  $L$  and  $L'$  are identical, in contradiction to our supposition.

The way out of this dilemma, as I see it, is to say that form and denotation do not exhaustively identify a word. There is more to a word than how it combines and which object it represents. And it is this extra something that varies from language to language. Recall one crucial fact about language mentioned above: it is used to provide information. Our characterization of 'saying that  $\varphi$ ' as 'saying that  $[\varphi]$  is true' explicates what 'information' is. But we have not considered the 'provide' part. To provide is to provide someone with something. A more accurate description of 'saying that  $\varphi$ ' is thus 'telling someone that  $[\varphi]$  is true'. This means sentences must be 'externalized', i.e. made perceptible by the senses.

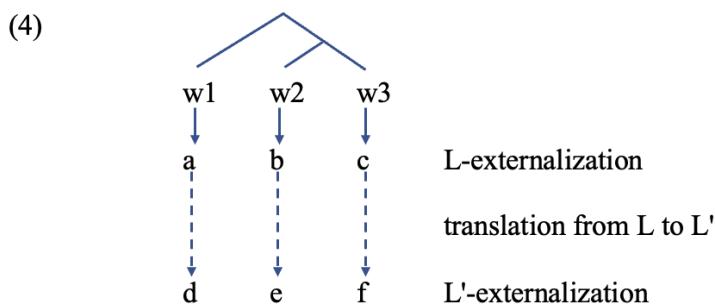
### 3.1.

Im Satz drückt sich der Gedanke sinnlich wahrnehmbar aus. [In a proposition the thought is expressed perceptibly.]

It is externalization, I will argue, which gives rise to cross-linguistic variation. Take sentence (1a), reproduced in (3a) and (3b), for example. It would be possible to externalize  $w_1$ ,  $w_2$ ,  $w_3$  as  $a$ ,  $b$ ,  $c$ , as in (3a), or as  $d$ ,  $e$ ,  $f$ , as in (3b). If we add this layer of analysis to the sentence, the sentence turns into two sentences in two different languages.



Thus, languages are identical up to externalization. As far as structure is concerned, there is only one language, because there is only one logical space. Words are structurally arranged in the same way in all languages, because they have the same forms with the objects and hence with their counterparts on all other languages. It is only when words are assigned auditory or visual shapes that cross-linguistic differences emerge. We now have a straightforward way to understand Wittgenstein's remark. Translation from a language  $L$  to another language  $L'$ , under this perspective, would just be replacing the  $L$ -externalization of each word with its  $L'$ -externalization.



The dictionary, then, would in fact be a list of pairs  $\langle x, y \rangle$ , but  $x$  and  $y$  are two different ways to externalize the same word. Saying that the word  $x$  in  $L$  is translated as the word  $y$  in  $L'$  would mean saying that the word which is externalized as  $x$  in  $L$  is externalized as  $y$  in  $L'$ .

But that, of course, is not how translation actually works. Translation in real life is very different from its description in 4.025. This is a puzzle, because that description follows from assumptions that seem obvious: (i) words stand for

things and they are put together in a sentence to represent how the things they stand for are arranged in a situation; (ii) sentences are used to convey information and must therefore be externalized, as we cannot read each other's minds; and (iii) externalization may vary across different speech communities, giving rise to different languages. The question, then, is what makes translation in real life so different from translation as described in 4.025.

The answer I want to defend is this: externalization in natural language is much more complicated and chaotic than how it is presented in (3) above. The scenario in (3) is one where each language maps each basic building block to exactly one perceptible sign. But that is completely unrealistic. Consider the English sentence in (5), for example.

(5) he thought his mom would call him

We would agree, I hope, that this sentence consists of seven words. But note that the word 'word' in ordinary language is not to be identified with the term 'word' as it was introduced in the last section. A 'word' in ordinary language is almost never a basic building block of language. We know, for example, that the words [he], [his], and [him] have some but not all things in common. That means that none of the three is basic, because basic entities do not have subparts and hence cannot have some but not all things in common. Linguists will say that [he], [his] and [him] are all [pronominal], [singular], [third person], while [he] is [nominative], [his] is [genitive], [him] is [accusative]. The same holds for the word [thought]: it is really the fusion of [PAST] and [think]. Now, it turns out that in Vietnamese, [singular] and [third person] are also externalized as one word, but the distinction between [nominative], [genitive] and [accusative] is not realized phonologically. We may say that these building blocks are all mapped to @ in Vietnamese, where @ is the 'null formative', i.e. one that has no phonological consequence at all. Moreover, Vietnamese differs from English in that it spells out [PAST] as an independent word.

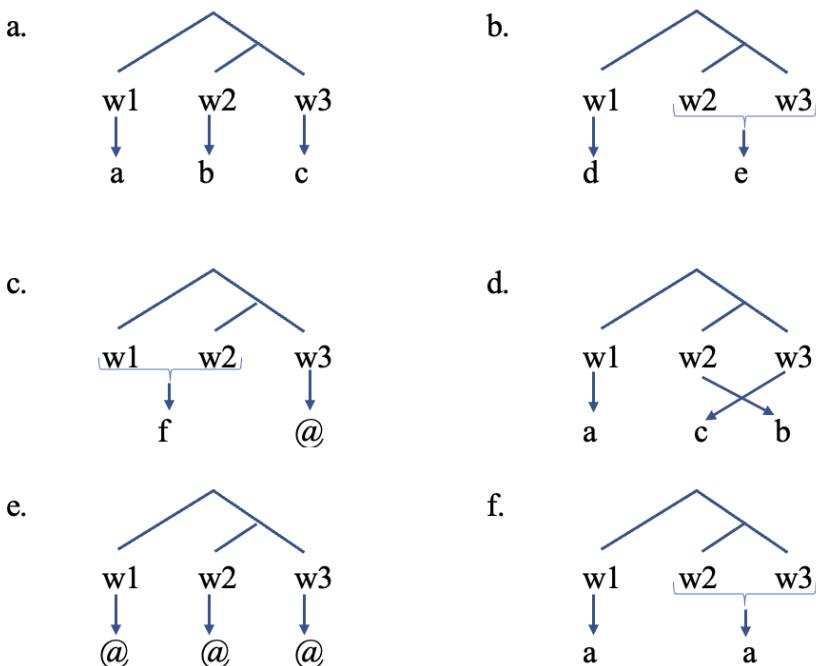
(6) nó đã nghĩ mẹ nó sẽ gọi nó (he PAST think mother his would call him)

There is also, as the attentive reader may have noticed, the issue of 'linearization': mapping a hierarchical structure into a linear structure. Semantics cares about constituency: which elements make up one unit and

which ones do not. It does not care about linear order. A thought does not take up space or time. However, a thought made perceptible to the senses does take up space or time. It so happens that the primary modality of language is sound, or more specifically, temporally extended sequences of phonemes. Suppose we have a unit with two elements, a and b. One language might map this unit into the string [a b], while another might map it to [b a]. This is the case with English [his mom] and Vietnamese [mẹ nó]. English places the noun after the possessive, while Vietnamese does the opposite.

We now see that a structure of basic building blocks such as (1a) may undergo externalizations which differ in more ways than indicated by (3). Some of these other ways are presented schematically in (7).

(7)



Thus, one and the same proposition may be expressed differently across various languages as [a b c], [d e f], [d e], [f], [a c b], etc. Some language may not externalize w1, w2, or w3 at all, making (1a) inexpressible in it. This is the case of (7e). It is also possible that different words, or combination of words, receive the same externalization, leading to 'ambiguity', i.e. different meanings being associated with the same sound. This possibility is illustrated by (7f). Wittgenstein discussed ambiguity in 3.323.

## 3.323

In der Umgangssprache kommt es ungemein häufig vor, dass dasselbe Wort auf verschiedene Art und Weise bezeichnet – also verschiedenen Symbolen angehört –, oder, dass zwei Wörter, die auf verschiedene Art und Weise bezeichnen, äußerlich in der gleichen Weise im Satz angewandt werden. So erscheint das Wort "ist" als Kopula, als Gleichheitszeichen und als Ausdruck der Existenz [...]. [In everyday language it occurs extremely often that the same word signifies in different ways – that is, belongs to different symbols – or that two words, which signify in different ways, are applied in a proposition in ostensibly the same way. Thus the word "is" appears as a copula, as an identity sign, and as an expression of existence [...].]

There are, in principle, many more ways of externalizing (1a). I should also note here that the 'building blocks' which we have mentioned above, e.g. [PAST] or [singular], are not really basic. We can easily entertain analyses of these concepts which break them down into more basic ones. Suppose we succeeded in arriving at the final analysis of (6), i.e. its maximally articulated logical form, we would probably be looking at an enormously complex structure of ultimate basic building blocks. I submit that it is these ultimate basic building blocks, the 'elementary particles' of the language of thought, which Wittgenstein call 'simple signs' or 'words'. These 'names' will be atomic and hence have nothing in common with each other. They are far removed from the syntactic and semantic elements of natural language with which we are familiar. Natural language is an instrument that emerges from the need for communication among social beings which know that they are extremely similar in their conception of reality. When I speak, I am conveying the logical forms of the propositions which I claim to be true. And since I know that my hearer, and know that he knows, that we share the same logical space and the same strategy of externalization, I can compress the gigantic logical form to be conveyed into a few bits of sound and rely on his ability to reverse engineer this radically impoverished output back to what I am trying to get across.

## 4.002

[...] Die stillschweigenden Abmachungen zum Verständnis der Umgangssprache sind enorm kompliziert [...]. [The tacit agreements underlying the understanding of everyday language are enormously complicated.]

Given the wide range and numerous dimensions of variation among speech communities with respect to how configurations of basic building blocks of the language of thought are made perceptible to the senses, it is clear why translation cannot work as Wittgenstein described in 4.025. Even if the translator has a perfect grasp on the meaning of the original sentence, it is rarely, most likely never, the case that the relevant logical form has an externalization in the target language which conveys it as well as the externalization it receives in the original language. How a speech community decides which (combinations of) basic building blocks should be externalized in what way depends so much on historical accidents and chance events as to practically preclude such scenarios as (4). We should keep in mind that the Tractatus seeks to reveal the conditions for the possibility of perfect symbolic representation and communication. The description in 4.025 should therefore be considered one of an 'ideal' case, where logical forms are completely explicit and no reliance on 'stillschweigende Abmachungen' is presupposed.

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