# Translation 

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Imagine a venerable scholar with a document in each hand. He is getting manifestly quite unhappy as he looks from one text to the other and back again. Finally, he throws both documents aside, declaring "This is rubbish! These are not translations!" The chances are that the venerable reader has allowed himself a little scholar's license in his choice of words. That is alright; he is angry and no one is listening anyway. The chances are that the documents are translations of one another, but they are such poor examples as to make him want to withhold recognition of them as such.

In fact, it is quite difficult to imagine the quality of a translation degenerating so much as to call in question whether it should be taken to be a translation at all. I am going to claim that it makes perfect sense to recognize varying degrees of translationhood just as is does to allow varying degrees of translation quality, but that the two scales are distinct, if not completely orthogonal. We rarely find ourselves faced with the problem of judging the degree of translationhood achieved by a pair of utterances or documents, but the gedanken experiment that involves imagining ourselves in that position may be useful for the light it throws on the nature of translation. I hope that sharpening our focus on this matter may throw some light on the kinds of translation that are produced in different ways and, in particular, on the essential differences between translations made by people and translations made by machines.

For the purposes of this discussion, it will often be convenient to refer to one of a pair of documents as the original and the other as the translation. However, unless we clearly state otherwise, we will be thinking of translation as a symmetrical relationship. From the point of view of the translator, which document serves as the source makes many and crucial differences, but our concern here will be mainly with the relationships that exist between the documents themselves and not with the process that brought one or the other of them into being. It is sometimes possible to tell, especially in the case of poor translations, which must be the original and, while this is interesting, it will not be at the center of our concerns.

A natural first requirement to put on a translation is that it tell the same story as the original. We must, of course, construe the term "story" very broadly, because many texts do not tell a story in the usual sense. So let us say that two texts tell the same story if they provide the same information to this reader. Two sufficiently attentive readers, one of each text, neither of whom had the information beforehand, should be able to answer questions about the information in the same way after reading the text. I purposely omit any discussion of the fact that we would need translations of the questions and the answers to conduct this experiment.

Of course, documents not only do more than tell stories, they also do more than convey propositions. So, when we say that a translation should convey the same information as the original, we must also construe "information" broadly. The two texts must establish the same propositions in the minds of the two readers, and also evoke the same questions, doubts, emotions and so forth, to the extent that the reader is prepared to entertain them. So, perhaps we can put it this way: an author undertakes to establish a certain state in the mind of someone who reads the document from beginning to end. A translation of the document should be successful in achieving the intended state in the mind of a speaker of the other language to the same extent as the original is.

Consider the following example in which, for the sake of simplicity, we have used English as the language of both of the texts

You can get to the airport on the RER, line B from the Gare du Nord. You can reach the Gare du Nord by taking the Metro from Place Monge. The Place

Go up the hill from the appartment to Place Monge. Take the Metro from there to the Gare du Nord. From the Gare du Nord, take the RER line B to the airport Monge is just up the hill from the appartment.

Both texts tell the same story. They both tell the reader how to get from some, presumably contextually given, apartment to the airport. While one may seem more natural than the other in some way, they both leave that reader in the same mental state, one in which he knows how to get to the airport. They make some assumptions about what the reader will be able to figure out for himself, for example, what the RER is and which direction to take the trains in.

In both versions, the story has three episodes corresponding to the three legs of the journey. The principle difference between the two versions is that the order of the episodes in one version is the reverse of what it is in the other. As a consequence, the reader is in a different mental state after reading just one or two episodes, depending on the version, even though he is in the same state at the end of the story.

The reader's mental states are the life blood of literature. An author's skill consists, in large measure, in manipulating them in subtle ways, and a translator's skill consists in leaving them has he found them to the extent possible. But there is no subtle manipulation of mental states going on in our example. Indeed, if we take it that the original is on the left and the translation is on the right in the above display, we might be inclined to commend the translator for rearranging things so that the order of the mental states in the translation corresponds to the order of the physical states that would occur if the instructions were carried out. In a case like this, there might be some tension in the mind of the translator between the desire to leave the order of things under the control of the author and the desire to get the reader to the airport as reliably as possible.

As we look at larger and larger texts, the requirement to maintain the identity
and the relative order of mental states dominates more and more. A redesign at this level would constitute rewriting the story and not translation. In the translating of belles lettres, it is particularly important to respect the author's intended sequence of mental states as closely as possible because the translator can be sure neither how important the sequence really is nor, indeed, exactly what the states are. So the safest policy is to translate the smallest pieces one can, consistent with maintaining the smoothness of the result, and to keep them as nearly as possible in the order that corresponds to the original. This is also the easiest thing to do. In translating more mundane texts there is rarely any cause to do otherwise except, perhaps, if one culture routinely places the ingredients in a recipe before the method, and anther puts them the other way round, or something of that kind.

So we have arrived, by a somewhat circuitous route, at the notion that a translation should tell the same story as the original and that, furthermore, that it should consist of as many elementary sections as possible, each being a translation of its opposite number in the other text.

Now let us examine another pseudo-translation, from English into English, that meets these requirement more nearly than our previous one:

Go out of the front door and turn left. You will pass three turnings on the right, the third being only for pedestrians. Turn right at the next possibility following this one and continue straight ahead, until you come have the possibility of turning half left along a wide boulevard at the end of which you will see an impressive building with a lot of gold leaf on the roof. That is the building you are looking for.

Go west along the river and cross be the Pont du Carrouselle. Go through the Louvre and up the Avenue de l'Opéra. The opera house is at the end of that street

This will doubtless seem a great deal less plausible as a translation than our earlier example. With a few exceptions, such as the word go, none of the words or phrases in the translation seems to translate a word or phrase in the original. However, both texts describe the same route from a hotel called "Les Rives de Nôtre Dame" in Paris, to the old Opera house. Since the mental states in the description correspond to to the physical places mentioned, and in that same order, then these texts should surely be allowed to count as translations of one another. It might perhaps be argued that the translation would make sense only to someone that was familiar with Paris but, so far, at any rate, the background of the supposed reader has played no role in our deliberations. In any case, it is not really true, because a sufficiently attentive person would not have to know the city but could follow the second set of instructions by reading the names of the streets that are clearly posted at each intersection.

So should we allow these two texts to count as translations of one another?

To help answer this question, let us consider another example taken from the magazine of the Accor hotel chain. ${ }^{1}$.

Ci-contre: Vestiges du $\mathrm{III}^{e}$ millén- Left: Ruins dating from the third aire avant J-C, surplombés de millenium BC, surrounded by Rocolonnes romainies.
Ci-contre: Theéatre romaine Right: Roman theatre (Odeon) (Odéon) construit au $\mathrm{III}^{e}$ siècle built in the third century AD. apr. J-C.

The important point to note is, of course, that "Ci-contre" is translated first as "left" and then as "right". It would be comforting to be able to believe that it does not have both of these meanings. In fact, of course, it has neither. Taken in isolation, we might translate it as "opposite", or "on the facing page". In the situation in question, what was being referred was not on the facing page but on the other side of the same page. But the translator achieved the required mental state but using a word with opposite meanings in the two cases. The important thing - the only important thing-is to cause the reader to look at the right picture. Whether "ci-contre" has a meaning that is in any way related to those of "left" or "right" is neither here nor there.

The sentences that make up one version of our directions to the Opra do not correspond to sentences in the translation that have the same meaning and, what this latest example suggests is that preservation of meaning is not a requirement that a translation should necessarily meet. Nevertheless the intuition remains strong that this pair of texts are not related as original and translation. Two reasons for the intuition suggest themselves. One is that, while meaning not always be preserved, it should in fact be preserved except where this proves to be inconsistent with evoking a corresponding sequence of mental states. Another explanation for the intuition is that, while carefully following the instructions in the two texts would lead a person to the same destination by the same route, they would not do so by evoking the same sequence of mental states. For example, the first talks of passing three turnings, the last being only for pedestrians. This is detailed and substantial information that is absent from the second text. To be sure, it is information that is not crucial to achieving the primary goal of getting to the opera, but it is information that has been gratuitously omitted. The same is true of a large amount of other information in the first text and, to this extent, the status of the texts as translations of one another is in question.

These examples illustrate that language is essentially situated in the sense of being grounded not simply in meanings such as a dictionary would supply for each of the words, but in complete situations that allow for coherent sets and sequences of mental states. To make this point, we will consider an extended example, not of a translation, but of an extract from the autobiography of the physicist Richard Feynman. In this passage, Feynman explains how a certain kind of combination lock, a kind often used on small safes and filing cabinets, works. The lock has a single dial which is turned a certain number of times

[^0]alternately in clockwise and anticlockwise directions, stopping each time when a particular number on the dial is at the top. The question is, how does the mechanism cause the lock to open in response to just one such sequence of events?

I will discuss only a few phrases from the beginning of this passage, but I invite the reader - especially the reader who does not know how these locks work - to read the whole passage once or twice. I hope that this will demonstrate that the passage achieves the author's intentions for it, namely that the reader should come to know how the device works.

There are three discs on a single shaft, one behind the other; each has a notch in a different place. The idea is to line up the notches so that when you turn the wheel to ten, the little friction drive will draw the bolt down into the slot generated by the notches of the three discs.
Now, to turn the disks, theres a pin sticking out from the back of the combination wheel, and a pin sticking up from the first disk at the same radius. Within one turn of the combination wheel, you've picked up the first disc.
On the back of the first disk, theres a pin at the same radius as a pin on the front of the second disc, so by the time youve spun the combination wheel around twice, youve picked up the second disc as well.
Keep turning the wheel, and a pin on the back of the second disk will catch a pin on the front of the third disc, which you now set into the proper position with the first number of the combination.
Now you have to turn the combination wheel the other way one full turn to catch the second disc from the other side, and then continue to the second number of the combination to set the second disc.
Again you reverse direction and set the first disc to its proper place. Now the notches are lined up, and by turning the wheel to ten, you open the cabinet. ${ }^{2}$

This is an extremely informal piece of writing about a subject that is, nevertheless, very precise. The point that I hope to be able to make about it is that it is effective only to the extent that the reader allows himself to be swept along from one mental state to another following the momentum of the argument.

Let us begin at the beginning:
There are three discs on a single shaft ...
A disk is a circular piece of material, quite thin relative to its diameter. The word "shaft" has several meanings. It can be (1) a long, usually vertical, space in the ground or in a building, such as an elevator or mine shaft, or (2) a solid cylinder, usually of metal, much longer than its diameter, intended to convey rotational force, as in the drive shaft of a car, or to support rotating wheels. In the interest of keeping things simple, let us suppose that these are the only possibilities. The first of the two meanings seems hard to involve in the workings of a lock, and maybe this is why the second immediately seems right. The difficult question is
to decide in just what sense the disks are "on" the shaft. They could be screwed or welded to it so that the shaft would lie across the surface of each disk, perhaps at the diameter. Or they could be screwed or welded to the end, or ends, of the shaft. For some reason, it was immediately clear to me, as it seems to be to most people, that neither of these is intended. What we have somehow to understand is that there is a hole in the center of each disk that the shaft can pass through. The disks can therefore rotate on the shaft so that they become, essentially, wheels. There is only the gentlest of invitations to this interpretation, in that the meaning we are betting on for "shaft" makes of it something intended to carry wheels and the disks are reasonable candidates for this role.

Now the disks are
... one behind the other...
If the shaft passes through a hole in the center of each disk, as I am betting they do, then are they not one beside the other or, even one on top of the other? Of course, they are one behind the other from the point of view of a person who is approaching the lock from the canonical angle, that is, from outside and in front of the safe or file cabinet. Such a person sees that disk directly in front, behind which the shaft extends away from him, carrying the disks, one behind the other. But there is no absolute, or neutral position that justifies the word "behind" here, and it plays no role in understanding how the mechanism works.

Now for a real puzzle.
... each has a notch in a different place... .
A notch is a small cut in the edge of something. For me, the word carries with it the suggestion that the cut has been made in a casual manner and may therefore be irregular in shape. However I am prepared to abandon this last condition as being almost certainly inapplicable to a combination lock. The real problem comes with the phrase "in a different place". A disk with a hole in the center has only two edges in which to put a notch, the outside edge, and the one around the hole through which the shaft passes. If one disk had a notch on one of these edges and one on the other, that would be two notches in clearly different places. But, now, what of the third one? The third disk must surely have a notch in the same place as one of the others because there are simply no other alternatives. All other things being equal-and I am claiming they must be for things to make sense - the notches should be in corresponding edges of each disk.

It will turn out that the notches all have to be in the outer edge, and I had no difficulty placing them there when I first read the piece. But how, then, can they be in different places given that disks are, by definition, objects of wonderful symmetry? The problem is somewhat less perplexing if one thinks of the disks, not as they would be when first manufactured, or when removed from the lock and lined up carefully on the work bench, but as they might appear when one opened the mechanism and looked inside. Each notch would then be in a different place, not relative to its disk, but relative to the mechanism as a whole.

Questions like these arise throughout the whole of the text. I mention a few
more, without discussing them at length.
The idea is to line up the notches ...
What idea? "Line up" in what sense?
when you turn the wheel to ten
What wheel? and what does it mean to turn a wheel "to ten"?
and, please, what are we to make of the following?
the slot generated by the notches of the three discs.
Let me be clear about one thing: I take this to be a remarkably successful piece of writing which, for me at any rate, succeeded immediately in its goal of conveying how one of these combination locks works. But it does it by inviting the reader to participate in a mental journey in which the text serves only to gently suggest which way to take when there is a branch in the road. Each signpost makes sense only to one who has been involved from the start and who knows where we are going, and why.

The burden of this discussion was summarized by Jean Delisle in his L'analyse du discours comme méthode de traduction, (p. 73) where he says "Le texte d'un message ne contient pas le sens, il ne fait que pointer vers lui." ${ }^{3}$ If everything were included that would be required so that even the most perverse reader could not misinterpret the writer's intention, it would be so heavy and complicated as to defeat that very purpose. One might be able to argue that it was strictly correct, but it would be totally incomprehensible.

Now here is the problem that this poses for the translator. The grammar and lexicon of every language requires certain kinds of information to be made explicit that can be omitted in some others. Consequently the part of the intended message that is made explicit in one language can rarely be exactly what it is in another. This means that the translator can, and often does, leave some of the information in the original implicit, allowing the momentum of the mental journey to supply it. It also means that the translator must frequently make explicit information that was left explicit in the original. Needless to say, this is only possible if the translator is being carried forward by the momentum of the text in just the way intended by the author. Most of the time, this does not put an inordinate strain on the translator, but it is entirely beyond the reach of any machine-translation system.

Vinay and Darbelnet ${ }^{4}$ provide many examples for the case of English and French. Consider the French question "Où voulez-vous que je me mette?" which can be glossed as "Where do you want me to put myself?". However, this is something no one would ever say. Better translations are avaiable, but there are indefinitely many of them and the choice among them depends on where we

[^1]stand in the mental journey. Some possibilities are:
Where do you want me to sit
stand
park
tie up my horse
sign my name
draw up my regiment
hang my pictures

Finding a good translation in a case like this requires the momentum of the mental journey to carry one forward to the next state where the words themselves are inadequate to do it. There is often no alternative to this. In this particular case, a cunning translator who was not carried forward strongly by the momentum, might write "Where do you want me?", but such a possibility may not be available in every case.

The French noun "promenade" describes movements through space that a person undertakes for recreational purposes. By default, one would probably translate it as "go for a walk", or "take a walk". But it could also be "go for a ride" if the context made it clear that a horse or bicycle was involved, or "go sailing" if that were more appropriate, and so on.

A chair in French must be specified as either "chaise" (straight chair) or "fauteuil" (easy chair). Leaving other alternatives aside, let us consider what considerations would be involved in the following examples of the word in use:

> I found this purse on a chair in the kitchen.
> I found this purse in a chair in the living room.
> Let's put Mary in the chair at the other end of the table.
> There is plenty to eat. That is not the problem. The problem is that we don't have enough chairs.
> There are plenty of barbers. That is not the problem. The problem is that we don't have enough chairs.

> J'ai trouvé ce porte-monnaie (1) sur une chaise dans la cuisine Jái trouv'e ce porte-monnaie (2) dans une fauteuille dans le salon Mettons Marie dans la chaise à (3) l'autre bout de la table Il y a assez à manger. Ça, ce (4) n'est pas le problême.
> Le problême, c'est que nous n'avons pas assez de chaises.
> Il y a assez de coiffeurs. (5) Ça, ce n'est pas le problême. Le problême, c'est que nous n'avons pas assez de fauteuilles.

In each case, a larger context could change our judgement about which word to use for "chair", but given only what is here, the following considerations, at least, seem relevant. We might expect to find more straight chairs in the kitchen and more easy chairs in the living room, but the key distinction between (??) and (??) lies in the preposition. The arms of an easy chair give it more the aspect of a container, so that you would find things in it, whereas you find things on the
surface of a straight chair. Likewise for dans and sur in French. This is the kind of clue that a statistical machine translation system might easily learn to pick up because the preposition is only one word removed from the word "chair". But, then, it would probably get (??) wrong. Presumably what is happening here is that decisions are being made about where to seat people around a table. This is a situation in which the preposition in is generally used in English, regardless of the kind of chair involved. This is chair as a position, rather than chair as an article of furniture.

In both (??) and (??), there are three sentences. And the second one can be thought of as standing for an arbitrary amount of intervening material, just so long as it does not upset the connection between the first sentence and the third. In both cases, there is a problem in that we do not have enough chairs of some kind. In (??), the momentum carries the reader naturally to the idea that the food of which we have sufficient, will be consumed by people who will be seated, presumably around one or more tables. They will be sitting on straight chairs because those are the kinds of chairs one sits on while seated around a table eating. In (??) we are presumably envisaging some number of barbers, presumably attending in some appropriate way to the hair of their clients. It is usual for a barber to do this while the client is seated in a chair and that chair is called a fauteuil in French, however comfortable or uncomfortable it may be.

I want to claim that there are two kinds of knowledge or ability that the translator of examples (??) through (??) must have, over and above of the grammar and lexicon of the two languages in order to choose correctly between chaise and fauteuil. One is a substantial knowledge of the world, and the other is knowledge of the way in which speakers and writers conduct mental journeys through parts of that world.

A bell is a "cloche" if it is in a bell tower, but a "sonnette" or a "timbre" if it is much smaller and higher pitched. The window that admits light and air to a building is a "fenêtre"; the widow in which a store displays merchandise is a "vitrine" or a "devanture", and the window at which one buys tickets or pays taxes is a "guichet". In each of these, and countless other cases, the French lexicon requires the translator to supply information that only implicit in the text, and that can often be supplied only by is able to put themselves in the situation depicted in the text.

Consider the following passages, involving the word chair.
je n'ai rien à me mettre (75) matinale (76)
window: fenêtre, guichet, devanture, vitrine (64) étranger: stranger, foreigner, alien (64) étiquetee: sticker, label, tag (64) nut utility award (68) mie nod: faire oui de la tête

Language is notoriously ambiguous. It frequently occurs that a word, a phrase, or even a whole passage is ambiguous and the question of which of its possible meanings is in play in a given context must somehow be determined by anyone hoping to translate it satisfactorily. But it is not obviously helpful to subsume that phenomena we are discussing here under the heading of meaning.

If we insisting on doing that, when we will presumably be reduced to saying that the French phrase "ci-contre" means "left", or "on the left" when it refers to something that is displayed to the left of the place where the phrase itself occurs, and "right", or "on the right" when it refers to something on the right. The same line of argument would presumably lead use to conclude that the French verb "se mettre" had an enormous, and possibly completely open ended set of meanings. Thinking rather in terms of mental states can lead one to think of some of these things in a different, and possibly more revealing light

Consider the following pair of instructions:
Pick up the red token off the table. Put it in the blue box.
If the passage were to be translated into a language in which "it" has to agree, say in gender, with its antecedent, then the question arises as what that antecedent is. For the sake of simplicity, let us assume that "token" and "box" are the only candidates. A linguist might naturally be lead to examine the material preceding the occurrence of "it", looking for clues having to do with proximity, island constraints, c-command, or whatever. And many such clues might be found. In this case, the fact that "token" is the object of the preceding verb, whereas table occurs in an oblique might play and important role. But there is an entirely different way to look at the problem, namely the following: you have told me to pick up the token. So here I am with the token in my hand. You cannot leave me long in that condition. As soon as I can find a referent for "it" that will allow me to construe the current sentence as allowing me to dispose of the token, I will do so.


[^0]:    1 "À livre ouvert", ("An Open Book"), Accor Magazine, No. 68, summer, 2005

[^1]:    ${ }^{3}$ The text of a message does not contain the meaning, it only points to it.
    ${ }^{4}$ J-. P. Vinay and J. Darbelnet. Stylistique Comparée du français et de l'anglais, Harrap, 1958

