

WHAT MAKES A TEXT UNTRANSLATABLE?

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Let us first consider what the process of translation consists of. One thing is certain: it is not, as many thought it was in the innocent early days of machine translation, a more or less automatic procedure whereby the form of a sentence S in the input language L_1 is replaced by the form of a hopefully equivalent sentence S in the output language L_2 . On the contrary, translation, good translation, involves the full adequate comprehension of the input sentence in its context, and, subsequently, an often largely original reformulation of the semantic content of S in the form of one or more equivalent sentences in L_2 . Translation, therefore, is a linguistic and cognitive process of considerable depth.

Let us have a closer and more analytic look at the first stage mentioned, the normal and adequate comprehension of the input text as it is presented sentence by sentence. *Comprehension* of a sentence S in L_1 by a comprehending (and translating) subject T means a conversion by T , i.e. in T 's mind, or, perhaps more adequately, in T 's mental machinery, from the auditory or visual form in which S is presented to a cognitive representation of the state of affairs or event described by S . But that is not all. As we know from the theory of speech acts, every uttered sentence involves some kind of personal commitment assumed by the producer P of the sentence in question with respect to his social environment. The speaker makes an assertion or promise, asks a question, issues an order, utters a doubt, expresses a wish, etc. The representation of the state of affairs or event described by S is thus, so to speak, couched in the social effect systematically associated with the sentence form chosen. Our translator, therefore, has to catch not only the state of affairs or event described by S but also the social commitment entered into by the speaker P . Accordingly, it is customary to distinguish between the *propositional aspect* and the *speech act aspect* of every sentence.

This conversion process from surface form to cognitive representation is, as we are now beginning to realize, extremely complex and only very partially understood. Some aspects, however, are better understood than others, in the sense that a collection of formal theories is available analysing and describing

certain parts or aspects of this process. One such collection of theories deals with the first stage in the comprehension process of sentences, at least for their purely propositional aspect. In the late 60s and early '70s a number of formal proposals were presented by linguists to account for this, strictly grammatical, part of the comprehension (and production) process of sentences. In so far as these proposals prove to be empirically tenable and of sufficient generality one may say that some scientific insight has been gained into this grammatical part of the comprehension (and production) process.

These theories agree that every sentence has a surface structure (SS) as well as a deep structure (DS), which is a level of representation that carries the meaning of S in a structurally regular and relatively analytic way. It is assumed that the lexical items occurring in the SS of S are still present at this DS level. Thus, for example, if S contains the verb *assassinate*, this same verb will still figure in the DS of S. All the deep structure does is make S fit for further semantic and cognitive processing, something which the surface structure is too often unable to do, due to its well-known semantic irregularities. According to these theories, the first stage in the comprehension process consists of a structural linguistic transformation process, by which, the surface structure of S is transformed into its deep structure. The definition of this structural transformational conversion process from surface structure to deep structure, and vice versa, for all the sentences of a language L is known as *the grammar of L*. It is important to keep in mind that grammatical processes are way beyond any threshold of awareness or consciousness: all grammatical processes occur as fully automatic routines. They are, so to speak, "underground" processes.

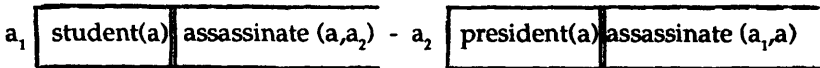
The next step in the comprehension process of S is a recasting, or projection, of the deep structure of S as an addition to any given knowledge store the comprehending subject may have available. The postulation of this step is based on the obvious fact (which has, however, only recently found academic recognition) that sentences are not understood in isolation, but against the backdrop of available factual, non-linguistic knowledge. It is widely, and, I think, correctly, assumed these days that this complex of available knowledge consists of two main components. The first is a *knowledge base* (KB) of whatever the subject has in the way of long term *encyclopedic world knowledge*. The second is a much more restricted fund of short term knowledge of the conditions prevailing at the moment of speaking, including in particular knowledge of preceding discourse. This second form of knowledge representation is called *Discourse Domain* (DD).

When we say that the deep structure of a sentence S is projected onto an available knowledge store, what is meant is, more precisely, that the informative content of S, as reflected in its deep structure, is put through a highly specific process of *incrementation* to a given D(iscourseD(omain)). Roughly speaking, the idea is that a DD consists of cognitive representations of (sets of) individuals, so called *addresses*. (We call "individual" anything that can be referred to as an entity, event or fact). Each address accumulates any information about the

individual or set of individuals it represents. Thus, when a sentence like (1) is presented:

- (1) The student assassinated the president.

The DD must have available two addresses, one for the student and one representing the president, let us say a_1 and a_2 , respectively. The address a_1 , i.e. representing the student, will then be incremented with the information that the student assassinated the individual represented by a_2 , i.e. the president, while the a_2 - address will receive the information that its representee was assassinated by the representee of a_1 , more or less in the following way:



Any further new information about the student and the president will be added to the right in the respective addresses. Besides such addresses, a DD may also contain a number of instructions restricting the further development of DD as new sentences are added. For example, the negation of a negative sentence S is incremented in DD as an instruction preventing the addition to the DD at hand of what is being negated in S .

There is an important difference between the grammatical transformational process from surface to deep structure on the one hand, and the incrementation process on the other. The former is, as far as we know, entirely self-contained and automatic, whereas the latter is screened by KB, the knowledge base of encyclopedic world knowledge. An example will clarify this. Suppose we have the following sentence:

- (2) The driver came barging in, furiously shouting that his upper wheel had been rigged

Given like this, none of us can make head or tail of it. Contrast this with, e.g.:

- (3) The driver came barging in, furiously shouting that his brakes had been tampered with.

Now there is no problem of interpretation. We take driver to refer to a person driving some sort of motor vehicle. We take the word his in his brakes to denote a known close relation between the driver and the brakes, in this case a relation which is mediated by the vehicle which was cognitively introduced by the word driver, and is taken to be in his direct care and responsibility. We know what it is for brakes to have been tampered with and why that may well raise someone's anger. All this is encyclopedic, and not linguistic, knowledge. And it is precisely this kind of knowledge that is lacking for sentence (2), as it

was likewise lacking for sentence (3) till something like a century and a half ago. The change between then and now was a change in conditions of life, not a change in the English language. All we can do to make sentence (2) make sense is to think up some fancy science fiction story where it is explained what an upper wheel is and what it is for an upper wheel to be rigged and why that should be liable to raise a driver's anger. Then the discourse domain will contain a small fictional encyclopedia, usable for the discourse-related interpretation of sentence (2). Without such a discourse, the sentence resists integrated comprehension. It is thus clear that cognitive factors are hard at work as soon as grammatical deep structures are projected onto discourse representation structures.

Another interesting cognitive aspect to be mentioned in this context is the following. In sentence (1) the verb *assassinate* occurs, and it has been assumed that this verb is literally, in its English lexical shape, added as new information to the respective addresses a_1 and a_2 in the DD at hand. This means that discourse domains, with their addresses, are not fully cognitive structures but somehow halfway between language and cognition. They are cognitive in that they distribute information over the individuals (or sets of them) being referred to in the successive sentences of the text. But they are still linguistic in that the information is contained in language-specific lexical predicates.

These lexical predicates, however, must be assumed, at the DD stage, to be associated with, or to have open access to, their mental or cognitive meaning descriptions. These tell us that assassination means murder, and murder means death. It would, therefore, be perfectly natural for sentence (1) to be followed by something like:

(4) The president's death sent the whole world into a state of shock.

There is no address yet for the president's death, but the very use of the definite noun phrase *the president's death* will cause such an address to be set up "post hoc". Knowledge of lexical meaning conditions ensures, in this case, the cognitive interpretative room for such an address.

At the same time, however, our comprehending subject T knows that the appropriate use of the verb *assassinate* requires the death in question to be the result of murder, and the murder victim to be a person of considerable public importance, while the murder was committed in relation to the victim's public importance. T also knows that the word murder implies the illegal killing of a human being with malice aforethought, and that the word *kill* implies the causing of death. T will accept the use of *assassinate* as appropriate in sentence (1), knowing that presidents are normally persons of great public importance. He will infer from the use of *assassinate* that the killing was for reasons to do with the victim's important position in public life, and not, for example, for private reasons.

Is this level of discourse representation "deep" enough for T to start his translation process? Perhaps in a few simple cases, but clearly not generally.

Suppose T has the task of translating sentence (1) into German. Being competent in both English and German T knows that German has no exact equivalent for *assassinate*, as opposed to *murder*. German uses, on the whole, one single word, *ermorden*, to cover both. What to do now? The simplest solution is to choose the more general German word and leave it at that. In many cases this will indeed be the course taken by the competent translator. But this solution will not do in all cases. The selection of the word *assassinate* as opposed to *murder* may well be significant in the English source text, for example when the speaker (writer) wishes to emphasise both the innocence and what, in his or her eyes, was the important public status of the victim. I remember, years ago, an interview on BBC television with a sister of a then well-known set of highly criminal brothers in London, who were constantly in and out of prison. One of the brothers had been killed, probably as a revenge by a rival gang. In speaking of this event, the man's sister said "When my brother was *assassinated*, ...". thereby inducing the presupposition that her brother was not only innocent but also an important figure in British public life. I do not think this nuance of meaning can be rendered in another language, such as German, that lacks the exact equivalent of *assassinate*. It is inevitably lost. If there had been a public outcry after this interview over the woman's use of the word *assassinate*, and the implications thereof, then a translator would be at a loss. All the translator could do in such a case would be to provide linguistic comment in his or her own words.

Let us now look at this example from the opposite angle. Let us consider the situation where T has to translate the German sentence:

(5) Der Student hat den Präsidenten ermordet.

which is the closest equivalent in German of sentence (1), into English. T may, of course, select the dictionary equivalent of *ermorden*, i.e. murder. But then T may be criticised for not having chosen the most appropriate word, which is, again, *assassinate*. The point is that if T is to choose the better word, he needs to do a number of things. First, he must divest the German sentence of its lexical idiosyncrasies and form a mental representation purely in terms of facts, something like "student causing president's death by illegally using violence". It must be admitted immediately that very little is known to any degree of reliability about the cognitive terms that would make up such purely factual mental representations. Yet, an a priori analysis of the phenomena makes the assumption of such a level of purely factual cognitive representation at least plausible). Then, T must integrate this factual representation into a representation of the whole context. Finally, he must use his own independent judgement as a speaker of the target language, English in this case, to find the right word.

This example is far from far-fetched. On the contrary, it is right at the heart of translation, and follows directly from the very general fact that languages differ enormously in the semantic specialisations of their lexical items.

The lesson to be drawn from this is that, as a matter of principle, a competent translator T needs full and integrated comprehension in order to be able to deliver a correct translation. What I have just called "full and integrated comprehension" amounts psychologically to a cognitively integrated factual, non-linguistic representation of the relevant chunk of input text. Having achieved that, T must then recast this cognitive representation into a properly organized text in the target language. It is here that the translator's creative powers will appear. Having grasped the meaning, and the significance, of the input text, he must now create a new text with as close a meaning and as similar a significance as were possessed by the input text. This means that he has to follow the same road that led to his comprehension, but now in the opposite direction, and in another language. In the process, certain aspects of the original text may be lost, as has been shown, and new aspects may be added. And if the translator is so unlucky as to stumble on a text whose point is precisely a textual aspect that cannot be rendered in the target language he has had it.

It follows from this that our translator must be in a position to construct the integrated factual representation required. Insurmountable translation obstacles arise in technical texts when the translator lacks the relevant technical knowledge. A classic example is the passage in Julius Caesar's *De Bello Gallico* where the author describes in great detail, but without any diagrams, the construction of a large wooden bridge. This passage defies translation as long as it is not, or not sufficiently, known how military engineers built large wooden bridges in Caesar's days.

Here we hit upon a further source of untranslatability, the so-called *underdetermination of comprehension by linguistic material*. By this is meant the awkward fact that words and linguistic structures do not suffice for an adequate integrated comprehension. What is needed is something like a general cognitive matrix or mould for the linguistic material to fit into. For translators of technical texts this is no news. I myself was once, many years ago, a specialised translator of ship-building specifications from English and Dutch into Italian. Often I actually had to go to the shipyard and ask the workmen to show me the functioning of certain pieces of equipment before I could deliver a proper translation.

It is relevant and revealing, however, to realize that this kind of problem is far from unique to technical texts. On the contrary, the underdetermination of comprehension by linguistic material is a quite general phenomenon in ordinary, non-technical language use. It is particularly visible in what we may call the "possessive complex", i.e. the whole complex of linguistic means expressing possessive relations, such as the English verb *have*, or the prepositions *of* and *with*, or the genitive suffix's. Consider the following two sentences, that could both have been taken from publicity folders, the first distributed by a tourist hotel, the second by a faculty in a university.

- (6) a. Each room in our hotel has a shower.
- b. Each student in our faculty has a mentor.

Suppose I, lured by the hotel folder, book a room in the hotel in question, only to find out that there is a note pinned on the inside of my door saying that my shower is at the end of the corridor on the left. I subsequently find out that the same shower has been assigned to all the rooms in the corridor. Although I now understand how this hotel's prices come to be so low, I do feel taken in, and with good reason: the hotel management is clearly guilty of providing false information in its folder, and will be liable to punishment if taken to court. In saying that a hotel room has a shower one necessarily implies that the shower is uniquely assigned to the room in question, and closely attached to it. But now, having recovered from this shock, I decide to enrol in the faculty advertising itself in sentence (6b). Upon arrival I am issued with a pile of printed stuff telling me all about everything in the faculty, including the information that my mentor is Dr. Whitewash, senior lecturer in philosophy. Inevitably, I soon find out that I share my mentor with quite a few fellow students. Am I now entitled to protest, as I did in the tourist hotel? Of course not! For in saying that a student has a mentor one does not at all imply that the mentor is uniquely assigned to the student (let alone closely attached to him). The point is that one has to know about the normal relation between a hotel room and its shower, and between a student and his mentor, to achieve full integrated comprehension of these sentences. This knowledge is not linguistic but encyclopedic, world knowledge, that is. The linguistic meaning description of the verb *have* is general and incomplete: it contains an open parameter "generally known relation", whose value is to be provided, in each case, by the comprehending subject's world knowledge. Needless to say, it is at present virtually totally unknown what mechanisms are at play in securing the activation of the relevant bit of world knowledge in each occurrence of the verb *have*.

Our further consequence of the requirement of a cognitively integrated factual representation of the text under translation is that the input text must allow for such an integrated representation. Logical mistakes, inconsistencies or vaguenesses prevent adequate comprehension, and hence translation, unless they serve a purpose in a wider context. Shakespeare often lets his characters talk gibberish, but always with a dramatic purpose, which the translator must grasp if he is to deliver a proper translation. But in a straight text, meant to be matter-of-fact and informative, inconsistencies and vaguenesses are a translator's nightmare, precisely because they prevent a coherent and integrated reconstruction of the original author's communicative intention. In such cases the translator may decide just to do the job he is paid for and deliver a partly incoherent text, as though there were an ulterior purpose to the inconsistencies. But he will remain unhappy about it, and we now see why. He knows that proper translation means full comprehension followed by re-creation. But all he has been able to achieve here was shallow cognitive penetration and premature, automatic reformulation.

The foregoing considerations show clearly that a good translation not only preserves the *linguistic meaning* of a text through the transition from L_1 to L_2 , it

also preserves the significance of the text, beyond its linguistic meaning, within the community of its users. This applies in particular to the cultural significance of texts. Bible translators know how difficult it is to fulfill this requirement. Whereas hell is meant to be a place of punishment and is said to be fitted out with lots of fires for that reason, Eskimos rub their hands in expectation of such a fine place. A conscientious translator will be in a terrible predicament here. On the one hand, a literally faithful translation will miss its purpose, but on the other, how free a hand may a translator allow himself to alter the literal text of a sacred book?

In smaller ways, however, cultural significance plays a role in many translation contexts. I was recently asked to act as an interpreter, translating a conversation between two British philosophers into Dutch. One of the two philosophers was holding forth on ontological questions, and used the rather nice expression *pukka objects* to convey the notion of hard and fast reality. Those who may be at a loss here must know that *pukka* derives from Hindi *pakka*, meaning "ripe, mature, full weight, genuine". It is known in Britain especially in the collocation *pukka sahib*, "a real, reliable gentleman". The transfer to *pukka objects* is now obvious. But how does one render this in a language spoken by a people that lacks the rather unique colonial history of Britain?

It is for reasons of this ultra-linguistic significance of texts that metaphors are sometimes hard to render in another language. Somewhere in E.M. Forster's early novel *Where Angels Fear to Tread*, set at the beginning of this century, we read:

(7) And at sunset the train was waltzing around the walls of Verona

The train in question had left from Switzerland on the morning of that day, pulled, as trains were in those days, by a steam locomotive that one imagines as rhythmically puffing its way down the slopes of the Alps and into the Po Plane, towards the walled city of Verona. The railway station being outside the town, on the other side from where the train arrived, the train had to go round a large section of the walls. Seen from a distance the train was transformed, in the author's eyes, into a strange individual performing the rhythmic circular movements of a waltz. But how is this to be rendered in a language spoken by a community where waltzes are an unknown phenomenon?

Another example from my personal experience is the following. A few years back an enterprising lady in the Netherlands, owner of an art gallery, organized an international exhibition of artistic comb designs that had been sent in on a competitive basis. The catalogue was to have, besides reproductions of the designs, an accompanying text in Dutch, English, German, French and Italian. The source text was in Dutch, written by a professional copywriter, who had been informed that her text was to be translated into those other languages. Unfortunately, this copywriter failed to realize how dependent a text can be on cultural allusions. She produced a text that was comprehensible only to

those familiar with Dutch culture, folklore and daily life. It was full of allusions to occurrences of combs in folktales, songs, literary works, local TV programmes, etc. It turned out that this text, charmingly written though it was, could not be translated. The translators who had been commissioned to do the work found themselves in the position of having to write new texts for each of the languages concerned, with, in the end, highly unsatisfactory results.

Finally, a text may derive some of its ultra-linguistic significance from sound play or sound effects. Suppose a writer describes the thrill of being in the company of a wonderful young lady in the following words:

- (8) Her delicate "yes" was like honey on my mind. Her little giggles were lapping on my ears.

The sensuality of such a description is significantly enhanced by the highly selective use of sounds: a dominance of high and mid vowels and of continuant, especially liquid, consonants. A translator who achieves the same effect in the target language is either lucky, or top class, or both.