On Translation: A Transformational Approach

Yoshiko Otsubo

This paper is concerned with the process of translation, in particular, with the process of translation in the framework of Transformational Generative Grammar. So far nobody has mentioned anything about translation in the theory. It seems to me, however, that we can show the process of translation in the theoretical framework more explicitly than any other approach. The main purpose of this paper is to show how transformational generative grammar can explain translation.

This paper consists of the two parts: Part I and Part II. In part I, first of all, the general concept of translation will be discussed from the viewpoint of translators. Second, the explanation of translation by Dr. George Grace will be introduced. Third, the process of translation will be shown in the framework of syntax.

In part II, we mainly discuss the operation of meaning in translation from the viewpoint of semantics. First of all, we review the relation between the syntactic component and the semantic component in the theory, and show some possible gaps between the original sentences and the target ones in translation: it will be shown that some may be syntactic and some may be conventional. Second, we focus on the statement, 'A translation has the same meaning as the original.' It will be pointed out that there are two kinds of sameness in translation. Third, we refer to one of the aspects of Speech Acts, i.e., an illocutionary act, which can be explained in the framework of the theory. Finally, we refer to the translation method in the teaching of English in Japan.

I

1. 0. Let us consider the operation of translation from the viewpoint of translators. If a person translates Language 1 (L1) into Language 2 (L2), he should know both L1 and L2. And here I assume that what he knows both L1 and L2 means that L1 and L2 are internalized in him. That is, the person who knows L1 and L2 can create L1 and L2 freely, or can generate grammatical or acceptable L1 and L2 sentences, and he knows whether or not a sentence in L1 or L2 is correct, or whether or not a sentence is acceptable. In other words, that he internalized L1 and L2 means that he has the grammar of L1 and the one of L2 in his brain and that he uses the grammar of L1 or L2 unconsciously when he
speaks L1 or L2.

The most ideal translation between L1 and L2 can be performed by such a translator who has internalized both L1 and L2. For example, if the translator is bilingual, he can translate L1 into L2 freely and vice versa. The following diagram will show the relation among an ideal translator, L1 and L2:

![Diagram 1](image)

The line between translator and L1 and the one between translator and L2 indicate that the translator internalizes L1 and L2. The translation between L1 and L2 can be performed through the translator: when he translates L1 into L2, he reproduces *what is said in L1* in the appropriate form of L2. And in the process of reproducing *the thing is said in L1* in the form of L2, he selects an appropriate form or structure in L2 to carry *what is said in L1*. Whether L1 and L2 are the same language family or not, the process of translation seems to be the same.

Let us consider a simple example: Miss R is a native speaker of Chavacano (Philippine Creole Spanish) and English: i.e., she internalizes Chavacano and English. When she was asked to translate a Chavacano sentence, 'Este si Kiko.' into English in the elicitation of Field Methods Course, she gave the English sentence, 'This is Kiko.' The following diagram shows the relation among them:

![Diagram 2](image)

Diagram 2 is parallel to Diagram 1: Miss R : *translator*, L1 : *Este si Kiko* and L2 : *This is Kiko*. If we compare the sentence in Chavacano with the one in English, we can observe that 'Este' in Chavacano seems to have the same meaning with 'This' in English, that 'Kiko' seems to be a proper name, that there seems to be no verb equivalent to *be* in English and that *si* in Chavacano can not be expressed in English, although _si_ is a kind of determiner for proper
names in Chavacano. That is, we can easily observe that she did not necessarily have a morpheme-to-morpheme translation. What she did in the translation is that she translated *what is said in Chavacano* into English. In other words, this shows that she understands that 'Este si Kiko' in Chavacano is equivalent to 'This is Kiko' in English, although *si* is added in English sentence and *si* is not expressed in English.

If I am asked to translate the same Chavacano sentence into Japanese, I also try to find a Japanese expression equivalent to the Chavacano expression: I say 'Kochira-wa Kiko-san desu' in Japanese. If I have a morpheme-to-morpheme translation, I will say 'Kore-wa Kiko-san', which can be accepted only in such a situation as the speaker introduces 'Kiko' to others by pointing 'Kiko' in a picture. 'Este' and 'This' in these sentences are equivalent to 'Kochira-wa' in Japanese, but not 'Kore-wa'. We often make this sort of awkward expression in the translation between L2 and L1 at the beginning stage of learning of L2; We are obliged to have a morpheme-to-morpheme translation, since we can not choose an appropriate expression in L2 for the one in L1 because of deficiency of knowledge. In short, translation can be performed successfully only when the translator commands the target language L2 as well as the native language L1, and what the translator does in translation is to reproduce what is said in L1 (or L2) in the appropriate form of L2 (or L1).

1. 1. Dr. George Grace gives the following explanation\(^1\) about translation:

The basic assumption which is required to account for translation is that what is said varies independently from how it is said. Thus, simply put, translation is saying the same thing in different ways (where the different ways involve different languages).

Following his explanation of translation, the relation among *what-is-said*, *how-it-is-said* (the-way-it-is-said) and translation will be shown as follow:

![Diagram 3](image)

This diagram shows that *what-is-said* is shared in both L1 and L2. Since L1 and L2 are different languages, the-way-it-is-said in L1 and the one in L2 are different from each other. And we could say that translation is an operation to be performed between what-is-said in L1 and what-is-said in L2.

Dr. Grace offers a new term, IDEA for *what-is-said*. The reason for his offering of the new term is as follows:

What is said, of course, is what is generally called the meaning or content of the sentence (or any other sign vehicle). What is unsatisfactory about those terms for my purposes is that they assume first a sign vehicle from which we then determine the meaning or content, that is, they compel us to start from form (the-way-the-thing-is-said) and seek the meaning which corresponds to the form (its content). The terms, then, have the effect of making it very awkward to talk about what is said as separate from the way it is said, and it is exactly that that I seek to do. I must, therefore, look further for a suitable terminology.... I have finally decided to call the thing to be said the IDEA.

If I understand his explanation correctly, he intends to show that *what-is-said* and the-way-it-is-said are independent from each other, and because of this, the new term, the IDEA is preferable to show the distance between them. Diagram 3 will be revised as follow:

![Diagram 4](image)

The IDEA can be expressed in L1, L2, L3, and so on, and translation can be performed between L1 and L2, between L1 and L3, and between L2 and L3 and so on. The explanation of translation by Dr. Grace and what I mentioned in section 1 seem to be the same thing, except that I used translator (or Miss R) in Diagram 1 (or 2) and he used what-is-said (or the IDEA) in Diagram 3 (or 4). However, what I used translator and what he used what-is-said show a crucial difference between them: We call the former a translator-oriented, the latter an interpreter-oriented.

In the interpreter-oriented, there is no neutral way to specify the IDEA, as

---

Dr. Grace pointed out:  

. . . although for the present we have no neutral means of specifying what is said, we can separate what-is-said from the-way-it-is-said by means of translation, i.e., by means of using a different language to specify what-is-said.

We can not see the IDEA expressed in L1. We can only perceive the IDEA in L1 through the IDEA expressed in L2. Since his basic assumption is that translation is saying the same thing in different ways (in different languages), the IDEA expressed in L1 and the IDEA expressed in L2 are the same thing. Thus theoretically there seems to be no problem. However, we can often find some differences or gaps between L1 and L2, or between L2 and L3 and so on. Even though the translator, who internalized L1 and L2, tried to find a L2 expression equivalent to a L1 expression in the process of translation, there may be some gaps between L1 and L2. Some may be syntactical differences and some may be semantic or conventional ones.

Thus we need to know how the translator understands what-is-said in a language, i.e., L1 or L2: If we want to have a rather scientific translation, we have to show both what the translator understands in L1 and what he translates L1 into L2 explicitly. The explanation of translation by Dr. Grace is not explicit in this point: What-is-said or how the translator understands what-is-said in L1 (or L2) can not be shown in his framework. It is in the translator’s mind, and we can only see it through L2 (or L1).

1.2. On the other hand, in the translator-oriented we are interested in both how the translator understands what is said in L1 and how Miss R translates what is said in L1 into L2. This can be shown in the framework of Generative Transformational Grammar. For our convenience, we can use here the same examples in section 1: ‘Este si Kiko,’ in Chavacano and ‘This is Kiko,’ in English have the following structures respectively, where Aux is eliminated for simplifying our discussion.

---

3) Ibid., p. 36.
Diagram 5 shows how the translator translates a Chavacano sentence into an English sentence explicitly. The tree diagram for Chavacano shows how the translator understands the sentence in Chavacano and the tree diagram for English shows how she translates the sentence in Chavacano into English. We can also say that the IDEA is realized both in the tree diagram for Chavacano and in the tree diagram for English.

Diagram 6 is for the translation between English and Japanese:

The tree diagram for English shows how the translator understands what is said in English and the one for Japanese shows how the translator translates what is said in English into Japanese. In short, these tree diagrams show not only how L1 and L2 differ from each other but also how the translator operated the process of translation.

II

2. 0. Let us begin with giving a brief survey of how the semantic component works in the transformational generative grammar. The semantic component depends on the syntactic component in the theory; the semantic component provides the outputs of the syntactic component with the semantic interpretation. In other words, the semantic interpretation can be provided to the outputs of the syntactic component. The deep structure of a sentence shows all the semantic information of the sentence, and the lexical insertion can be realized by using the information provided in the deep structure. For example, an English sentence, 'This is a book.' has the following deep structure:
The deep structure shows all the semantic information of the sentence: i.e., 'this' is the subject of the sentence, the tense of the verb, 'be' is Present, and 'a book' is the complement of the verb, and so on. The lexical insertion can be realized using these information from the syntactic component, and we have the meaning of the sentence, 'This is a book.'

2.1. We have three examples here in order to show how we can explain the process of translation in the framework. The first one is a word-for-word translation: Suppose that I am asked to translate the English sentence, 'This is a book.' into Japanese. The process will be shown as follows:

This diagram can be interpreted as follows: The deep structure of the original English sentence gives the semantic information of the sentence; i.e., 'this' is the subject of the sentence, 'a book' is the complement of the sentence and the tense is Present and so on. And the total meaning of the sentence, 'This is a
book.' can be obtained after applying the lexical insertion by using the information in the deep structure, which means how the translator understands the sentence. On the other hand, the deep structure of the target Japanese sentence shows how the translator replaced the original English sentence into the corresponding Japanese sentence; i.e., the English sentence, 'This is a book.' can be replaced into the Japanese sentence, 'kore-wa issatu-no hon desu.', which is a word-for-word translation, although the word order is different from each other and the Determiner, 'a' in English is replaced with the Adjective, 'issatu-no' in Japanese.

The second example shows that the translator can add some elements to the target sentence or that he or she can delete some elements from the target sentence in order to have an appropriate sentence in translation. Let us compare the Chavacano sentence, 'Este si Kiko.' with the corresponding English sentence, 'This is Kiko.':

The diagram 3 also shows how the translator understood the original sentence and how she replaced it into the target sentence. In other words, the deep structure of the original sentence gives all the semantic information of the sentence, which means how the translator interpreted the sentence, and the deep structure of the target sentence also shows all the semantic information, which means how the translator replaced the original sentence into the target sentence.

Since our informant translated the Chavacano sentence, 'Este si Kiko.' into the English sentence, 'This is Kiko.', we have to accept that these two sentences are equivalent, although she added the verb, 'be' to the target sentence. We should realize that only the competent translator can decide whether or not the original sentence is equivalent to the target in translation. And some elements can be added to the target sentence or deleted from it by the competent translator. In
the above example we can find the addition of the verb, 'be' to the deep structure of the target sentence and also the deletion of the determiner from it.

The third example shows another aspect of the addition to the target sentence. In the corresponding Japanese sentence to the Chavacano sentence, 'Este si Kiko.', we can find not only the addition to the deep structure but also the addition to the semantic interpretation, which may come from the conventional usages or the cultural background of the language.

In the Japanese translation, the verb, 'desu' is added, which is the addition to the deep structure of the target sentence, *det* was deleted, and *honorific* 'san' was added. The determiner, 'si' in Chavacano can be used for only the proper name, whereas the honorific 'san' in Japanese can be used for the proper name, although there is a conventional usage of 'san'. 'Este' can be translated into 'kochira (-wa)' in Japanese, though the literal meaning of 'Este' or 'this' is 'kore (-wa)' in Japanese as the diagram 2 shows. The translator chose 'kochira-wa' in this case instead of 'kore-wa', which means that she gave a conventional semantic interpretation to the phrase, i.e. the NP dominated by $S$. She understands that 'Este' (or 'This') in Chavacano (or English) is equivalent to 'kochira-wa' in Japanese in this example.

As the above examples show we can not get a word-for-word translation for every sentence. The translator sometimes has to add some elements to the deep structure of the target sentence or delete some from it in order to have an appropriate translation, and also add a conventional meaning to the semantic information provided in the deep structure. In other words, in order to have an appropriate target sentence, the translator has to adjust *what is said in the original sentence* from the viewpoint of syntax and semantics, which includes the contex-
tual and cultural meaning of the languages concerned. Thus the most critical problem in translation is the way how we can decide the translation equivalence in meaning.

2. 2. The following statement by J. C. Catford\(^1\) seems to be accepted in general:

> It is generally agreed that meaning is important in translation .... particularly in total translation. Indeed, translation has often been defined with reference to meaning; a translation is said to 'have the same meaning' as the original.

It seems to me, however, that the expression, 'a translation has the same meaning as the original' needs some comments, which reminds me of Dr. Grace's explanation, 'Translation is saying the same thing in different ways (where the different ways involve different languages)'.

I have pointed out in 1. 2., however, that we have to show both what-is-said in L1 (or how the translator understood the-way-it-is-said in L1) and what-is-said in L2 (or how the translator replaced what-is-said in L1 into L2) explicitly in order to have a scientific translation, since we often find some differences or gaps between the-way-it-is-said in L1 and the-way-it-is-said in L2. Even though the translator, who internalized both L1 and L2, tried to find the expression in L2 equivalent to the one in L1 in the process of translation, there still be some possibilities of gaps between L1 and L2; Some may come from the syntactic gaps, and some from the semantic or pragmatic gaps as we discussed above.

Thus we can not accept without any comment that a translation has the same meaning as the original or that translation is saying the same thing in different ways (or in different languages). The following examples will show the problem of the statement clearly:

1. It's raining cats and dogs.
2. Il est pleuvant chats et chiens.
3. Il pleut des chats et des chiens.
4. Il pleut à verse.

Sentence (1) is the original English sentence, and (2) (3) and (4) are the translated French sentences: (2) is a word-for-word translation, (3) is a literal translation and (4) is a free translation. According to the above statement of translation, (2) (3) and (4) have the same meaning as (1), or they are saying the same thing as (1).

---

1) J. C. Catford, p. 35.
We also have the following pairs of English and French sentences:

5. a. It's raining cats and dogs.
   b. Il est pleuvant chats et chiens.
6. a. It rains cats and dogs.
   b. Il pleut des chats et des chiens.
7. a. It rains hard.
   b. Il pleut à verse.

In each example of (5) (6) and (7), we can find equivalent words between (a) and (b): i.e., all of them are the word-for-word translation. And we could say that the target sentences, i.e., (5b) (6b) and (7b) have the same meaning as the original ones, i.e., (5a) (6a) and (7a) respectively. The following diagrams will show that the original sentences and the target ones have the same meaning explicitly:

(5')

(6')
These tree diagrams could show that the original sentence (a) and the target sentence (b) in each example have the same meaning, since these are a word-for-word translation and both (a) and (b) can be accepted in both English and French.

Here we can find two kinds of the sameness in translation: First, the original sentence (1) has the same meaning as (2) (3) and (4) (i.e., the target sentences), since (1) can be translated into (2) or (3) or (4). Second, the translated target sentences, (5b) (6b) (7b) have the same meaning as the original sentences, (5a) (6a) (7a), since the relation between (a) and (b) in these examples shows a word-for-word translation and both can be accepted in both languages. It is clear that the problem of the sameness in translation occurs in the first one. When the translator gave the translated sentence (7b) (or (4)) for the original sentence (5a), or (7b) (or (4)) for (6a), how can we explain that (7b) (or (4)) has the same meaning as (5a) or (6a)? Why does the translator interpret (5a) or (6a) as having the same meaning as (7b) (or (4))? 

Let us examine the deep structure of (5a) (=1)) and (7b) (=4)):
First, the original sentence (5a) has the Aspect, 'be-ing' in Aux, whereas the AUX in (7b) does not have it. Second, the NP, 'cats and dogs' dominated by VP in (5a) are translated as 'à verse', but not as 'chats et chiens': This is the most problematic part of meaning in translation.

The competent translator gives the following Japanese sentence (8) for (5a):

5a. It' raining cats and dogs.

8. ame-ga hagesiku futte-iru.

'rain-subj' 'hard' 'is falling'

This is a free translation. In this example, the translator cannot give a word-for-word translation, which does not make sense for Japanese:


'rain-subj' 'like cats and dogs' 'is falling'

Since we cannot understand the meaning of the phrase, 'cats and dogs' in the sentence in our Japanese culture, the phrase blocks the interpretation of the sentence: The literal meaning of the phrase does not provide any proper meaning to the rest of the sentence.

It is interesting to know how the native speakers of English understand the sentence (5a) (= (1)), which will have the following deep structure:

```
S
  NP
    AUX
      VP
        N
          Tns Aspect V NP
          It Pres. be-ing rain cats & dogs
```

Diagram 7

In the personal conversation, Dr. Grace told me that he interprets the phrase, 'cats and dogs' as 'hard', although he does not know the reason why the phrase, 'cats and dogs' has the meaning of 'hard', which seems to come from an old saying. This means that 'cats and dogs' is treated like an idiomatic expression. For the idiomatic expressions, we will have a special device in the lexical insertion. We deal with the idiomatic expression, 'cats and dogs' like one word, and provide the meaning, 'hard' to the whole phrase. The diagram 7 can be replaced with the following diagram 8, which shows how the native speakers of English understand the sentence (5a):
It has become clear that the expression, 'A translation has the same meaning as the original.' includes both the meaning based on the language itself and the one based on the cultural background. And we have shown that both types of meanings can be explained in the framework of the transformational grammar. The meaning based on the language itself, i.e., the literal meaning, can be obtained in the regular process of the semantic interpretation: using the semantic information in the deep structure, the lexical insertion is introduced and the literal meaning can be obtained. On the other hand, the conventional meaning based on the cultural background can be obtained by introducing a device in the lexical insertion: we use the semantic information in the deep structure and have a device in order to incorporate the conventional meaning into the information; as our above examples show, 'cats and dogs' can be treated like one word, and assigned the meaning of 'hard' in the lexical insertion, by adding a condition, i.e., only after 'to rain'. This device can be applied to such sentences as have a conveyed meaning, as we discuss in 2.3.

2.3. If we consider the following sentence (1) from the viewpoint of Speech Acts, it is an ambiguous sentence. It has two meanings, i.e., the literal meaning and the conveyed meaning, which implies an illocutionary act:

1. Can you reach the salt?
2. The literal meaning: I am asking you if you can reach the salt. (Question)
3. The conveyed meaning: Please pass me the salt. (Request)

If we translate this sentence into Japanese, we will have the following two target sentences:

   'you'-subj 'the' 'salt'-obj 'reach' 'can' 'question'
5. The conveyed meaning: sono-sio-o totte-kudasai.
   'the' 'salt' 'pass' 'request'
(4) has the same meaning as (2) and it can be obtained in the word-for-word translation, whereas (5) has the same meaning as (3) and it can be obtained in the free translation.

Let us try to explain both the literal meaning and the conveyed meaning for the sentence (1) in the framework of the Transformational Grammar. First of all, the sentence (1) has the following deep structure:

```
S  
  Q NP AUX VP
    N Tense Modal V NP
      you present can reach the salt
```

Diagram 9

The literal meaning of the sentence can be obtained through the lexical insertion by using the semantic information in the deep structure, while the conveyed meaning of the sentence can be obtained by using a device in the lexical insertion, as we have already shown in case of idiomatic expressions. We treat the whole sentence like one word and assign the conveyed meaning to the whole sentence as a unit or as one word. We have to notice that the sentence with the conveyed meaning has the same deep structure as the sentence with the literal meaning, and that the conveyed meaning of the sentence (1) is conventional or idiomatic. The following sentences are also conventional and ambiguous, and can be explained in the same ways as (1):

6. Why don't you sit down?
   The literal meaning: I am asking you the reason why you do not sit down. (Question)
   The conveyed meaning: Sit down please. (Suggestion)

7. Will you take out the garbage?
   The literal meaning: I am asking you if you take out the garbage. (Question)
   The conveyed meaning: Take out the garbage, please. (Request)

8. Do you know who lives next door to you?
   The literal meaning: I am asking you if you know who lives next door to you. (Question)
   The conveyed meaning: I'll tell you who lives next door to you. (Suggestion)
or

Please tell me who lives next door to you. (Request)

The sentence (9) is not ambiguous by itself; i.e., it is neither conventional nor idiomactic:


In a certain context, however, it will become an ambiguous sentence. Suppose that A was invited to B's house, and that A had a cold. A felt cold and said, "It's cold in here." In such situation, (9) may have the conveyed meaning (10):

10. Please turn up the heat. (Request)

This kind of indirect speech acts are very much dependent on the contexts in which these speech acts occur. Thus the translator needs not only the knowledge about the cultural background of the languages concerned but also has to know how to react in the actual situations. If the translator does not have this knowledge, he just gives the literal meaning of the utterances, which means that it is not a good translation.

3. Let us turn our attention to English education in Japan, where the translation method is one of the most popular ones. The discussion we have had in this paper, however, suggests us that the translation method in the teaching of English is not an effective one for acquiring the ability of the use of English, since translation can best be done after we internalized both L1 (Japanese) and L2 (English). Thus the first job we have to do for our students in the teaching of English is to train their ability of the use of English so that they can internalize English, if we intend to teach English as a communicative language or as an international language. After they have internalized both L1 and L2, they can, with further specialized training, translate L1 into L2 or vice versa.

4. In this paper, we have shown that translation can be explained in the framework of the transformational generative grammar. In part I, the process of translation has been shown in the framework of syntax, and in part II, we have discussed the problems of meaning in the framework of semantics. We pointed out that the statement 'A translation has the same meaning as the original.' refers to two kinds of sameness: one is based on the literal meaning, which comes from the word-for-word translation and the other on the conventional or conveyed meaning, which comes from the free translation, and that these two
kinds of meaning can be explained in the theory. Finally, we pointed out that the translation method in the teaching of English in Japan is not an effective one if we intend to teach English as a communicative language.

References:

N. B. The first draft of this paper was submitted to Dr. George Grace as a term paper for his course, *Ling. 615, The Nature of Language* (Spring, 1982) at the Department of Linguistics, the University of Hawaii.

(Received Oct. 31, 1982)