

# Literary Translation in the Era of Computer Translation

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## I

Considering the recent development of computer engineering for machine translation, which is reportedly remarkable, one may estimate that machines will soon take over some of the translation work traditionally done by human beings, such as of science papers with the subject matter restricted to some areas of discourse, for example, nuclear physics or genetic engineering. One may further estimate, or rather hope, that the day will come when machines will eventually take over all our human labour of translation including practical, academic and literary translations.

On the other hand, educated minds have always thought that something must be done to raise the quality of commercial translation and, at the same time, the status of the translators. The present situation in which translation lies "needs constant attention from alert minds."<sup>1</sup> As we all know, there is nowadays a greater flux of translation than in the past of all kinds, classic and modern, of texts, articles, and books being translated from one language into another with amazing speed.

We know there are some devoted translators in our society who really love the labours. (I would highly esteem them.) There are, however, many others who are neither qualified nor scrupulous but are always willing and take whatever job of translating they come across, for the little pay from the publisher. As these cheap translators are always available, few publishers care for really sensible, skilled translators. Hence, hacks can pass for full-fledged translators, and consequently, we now see a flood of low-quality translations,

often ambiguous or unreadable, with which the enormous contemporary mass of young and old daily feed their minds. I presume this is a sad reality all over the civilized world today.

Modern "robots" called Computers have fantastic machine capabilities — an immense capacity of storage and a dazzling speed of processing, filing and shuffling — but, unfortunately, without the creative function of brainwork or brainwaves. Now, they are threatening to drive away both skilled and hack translators and reign over the kingdom, or the hell, of translation. Seen in this light, they are indeed a barbarous horde of "new hacks" devoid of empathy, sympathy and imagination.

Nevertheless, there may be a good number of people, including many publishers, who would receive these "robots" with joy because they are not only speedy but, once purchased and installed, they would never wish any pay, nor would they complain about their hard work. The general public would not mind what would happen because they have tacitly agreed that translation is "hack-work" anyway.

I think they are not altogether mistaken or misled for honest translators have always had an uneasy feeling about their translations which inevitably deviate much from the "norm" of the originals though they have always tried hard to "approximate" the former to the latter. Indeed, translation is the "business of re-enacting someone else's creation"<sup>2</sup> In actual translation, the translator is constantly faced with the problems of replacing formal properties of the original by something roughly equivalent found in the receptor language — the pressing problems that he must solve then and there. Hence, few translators would object to the notion that "translations are not the same thing as their originals."<sup>3</sup>

Now, from what I have observed so far, a new problem arises, namely, how we should treat these "robots," whether kindly or badly because, as I have already hinted and as I will further examine in this paper, both human and machine translators would never be flawless in this matter of translation.

## II

Translation means a fairly wide range of very different activities, at once an art, science, and a skill, comprising transcription, transposition, imitation, translation, free version, adaptation, re-creation, re-versification and so on. In spite of this diversity, however, translation itself nearly always "depends on a

double awareness of the cultural context in which the original was produced and of the context into which it is to be 'projected'.<sup>4</sup> Thus, a translator must not only be at least an amateur philologist and grammarian of source and receptor languages but also be well versed in the custom and culture of the nation of the source language. Otherwise, his translation would inevitably reveal very laughable but serious errors in translation such as the following: (Asterisk '\*' means "unacceptable".)

- 1) *From Chinese into Korean*  
打野鷄 \* 꿩 사냥 (kkuōngsanyang = pheasant hunting)
- 2) *From Korean into Japanese*  
뒤를 보고 싶습니다. (Twirŭl pogosipsŭmnida.)  
\*後を見たってす. ((I) want to look at (my) back.)
- 3) *From Japanese into Korean*  
踊場 (おどば) \* 댄스홀 (ttaensŭhol = a dance hall)
- 4) *From Korean into English*  
당신은 안면이 넓습니다. (Tangsinŭn anmyŏni nolsŭmnida.)  
\*You have a broad face or Your face is broad.

However, these are but minor errors, relatively easy to detect and also easy to correct, when compared with some other types of errors that are pervasive and "obscure" and are much more serious. As an example, let me quote a Korean *sijo* line and its English translations.

(Otongip'e pidŭnnŭnsori changbuŭi kisangira,)

- 1) The sound of rain *dropping* on the paulownia leaves  
Is the spirit of a manly man,
- 2) The sound of rain *drizzling* on the paulownia leaves  
Is the spirit of a manly man,
- 3) The sound of rain *drumming* on the paulownia leaves  
*Has* the spirit of a manly man,
- 4) *The drumming of rain on paulownia leaves*  
*Evokes the spirit of a manly man,*

The first English translation is what we may call a literal translation faithful to the superficial meaning of the original. This way of translating, which certainly falls on somewhere between "transcription" and "transposition," is often worthless in literary translation though it might look "exact" and "correct" to an inexperienced eye.

The second version, which has "drizzling" in place of "dropping," shows the trace of slight effort made to get out of the rigid and mechanical one-to-one correspondence we have just seen in the first translation. This second one, because the meaning of "drizzling" contradicts what is meant by "the spirit of a manly man." This version discloses that the translator here has not sufficiently understood the general idea of this *sijo* line. Instead of "drizzling" we need some word that sounds more active and masculine.

In this sense, the third version seems successful with "drumming" in place of "drizzling" and with the verb "Has" in place of "Is." This version has certainly escaped the "low-grade" translation such as "transcription" or "transposition" seen in the case of the first translation and reached the proper domain of literary translation. However, it is not entirely satisfactory because we have not yet considered any features of the poetic "form" or "pattern" in which the Korean *sijo* on line was originally composed and of the English poetic "form" into which the *sijo* line is to be "projected."

As you have probably noticed, the Korean *sijo* line is composed, within the "limited freedom" of the traditional *sijo* form, to a certain syllable rhythm allowable, which, in this case, is a 4-5 and 3-4 syllable rhythm. English metres are, of course, vastly different from Korean syllable rhythms, and there is no hope of "approximation" between them.

Therefore, I took the liberty of choosing at random the English "iambic pentametre," which is as we know favoured most in English verse, as the counterpart for the Korean *sijo* rhythm in the final and fourth version. For the benefit of "iambic pentametre," I have slightly altered word order discarding the word "sound" and changed the predicative verb "Has" into "Evokes," and I have omitted the definite article "the" from the English lines. With this alteration, we now come to have a couplet of fairly regular "iambic pentametre" lines here but, to do so, I had to change or slightly sacrifice some of the original meaning.

Therefore, at the moment I can hardly judge myself whether I did right or wrong in the case of the final English translation; and, if I did right, to what extent. After all, "rhythm is the one feature of a foreign language that

we can probably never learn to hear *purely*.”<sup>5</sup>

### III

Describing the recent development of computer engineering for machine translation with accuracy to any extent is beyond my capability. Being a literary oriented man myself, I can at best give you a very brief and rough sketch of what is going on outside our literary domain, say, between English (American English, to be precise) and Korean, by way of attracting your attention to Appendix 1 attached to this paper.

It comprises a few extract pages from a science paper presented recently to an international symposium by a professor of the Department of Computer Engineering, Seoul National University where I myself belong. What his team has been experimenting with and has achieved so far is a basic system through which English sentences may be translated (transcribed or transposed, in our sense) into Korean sentences. (Cf. the last page of Appendix 1.) This is part of a long-term joint project with an IBM-sponsored American team. Hundreds of the sample English sentences that have already gone through the process of “parsing” and “tree analysis” are provided by the American team, and the Korean team is doing what is illustrated on the middle page of Appendix 1.

Thus, it seems that what the Korean team has achieved so far is a good result from the machine translation system of one-to-one correspondence with a limited number of sentences through a mechanical process which obviously needs human postprocess or postediting. The reverse of this system, which would be from Korean sentences into English sentences, would look closer to the translation process of the first English version of the Korean *sijo* line than to any other English versions. This machine translation system from English to Korean, however, is rudimentary in that it is still far from doing any mental work such as of understanding or selecting between words, not to mention the structural or cultural differences.

In several advanced countries, there have been ongoing experiments to promote machine “understanding.” For example, Appendix 2 shows the result of such an experiment reportedly conducted at Yale University. All the answers printed in capital block letters were put forth by a computer to the questions raised by human engineers. They must have “fed” this machine with an enormous amount of information concerning each segment of the

content of the English text appearing on the first page of Appendix 2, which is entitled "Divorce - 1". The programming alone of this experiment must have taken a great length of time - perhaps, some years.

## V

To conclude, let me remind you of the question I have raised early at the close of my introduction, i.e., "How should we treat these 'robots,' whether kindly or badly?" How would you respond to this? My answer to this question at the moment is simply this. "You don't really need to either entertain or reject them. They are after all mindless machines, but watch them carefully. If in time they should grow smart and sophisticated enough as to perform the function of translating at least at the level equivalent to that of the third English translation of the *sijo* line we have examined above, then hire them at once at any cost. If not, just wait. There is no need to hurry!"

## Notes

1. *The Craft And Context of Translation: A Critical Symposium*, ed, William Arrow-smith & Roger Shtuck (Anchor Books, Doubleday & Co., Inc.: New York, 1964), p. vii.
2. *On Translation*, ed. Reuben A. Brower (Oxford Univ. Press, 1966), p. 4.
3. "The Trouble with Translation," *American Journal: A Quarterly Review*, Vol. III, No. 2 (September 1963), p. 189.
4. *On Translation*, p. 3.
5. *Ibid.*, p. 70.
6. I am grateful to Prof. Y. T. Kim who was so kind as to explain his team's project on an English-Korean translation system for machine translation and provide me with written materials, some of which appear in Appendixes 1 and 2 at the end of this paper.
7. The source of this material is *In-Depth Understanding: A Computer Model of Integrated Processing for Narrative Comprehension* by Michael George Dyer (The MIT Press, 1983), pp. 369-72.

## APPENDIX - 1

### An English-Korean System for Human Assisted Language Translation

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#### Summary

KSHALT (English-Korean System for Human Assisted Language Translation) is a machine translation system from English to Korean based on transfer approach.

It consists of four phases such as English parsing, tree analysis, English-Korean transfer and Korean generation.

Each phase is designed to have modularity and extensibility and driven by the information from various dictionaries for precise translation.

#### I. Introduction

In machine translation the accuracy of translation usually depends on the range of domain. Presently IBM system manual is the range of this project, and the accuracy of translation is promoted to a level of satisfaction.

For English parsing, KSHALT uses PEC(PLNLP English Parser) which is developed at IBM Watson Research Center. We rearrange the English parse tree in proper pattern for accurate analysis. The structure of KSHALT is shown in Fig. 1.

During the English tree analysis phase, a standardized English intermediate representation is constructed through the analysis of the English intermediate representation. Here we use semantics for disambiguation. English-Korean transfer phase consists of lexical substitution of English word by Korean word and word order conversion from English sentence to Korean

sentence. Korean generation phase receive Korean intermediate representation as input and transforms it into proper Korean word order and representation. Then Korean sentence will be generated through the morphological generation by Korean grammar.

In case of improper translation for several reasons, post processing phase is to detect and correct for more accurate work.

English Intermediate Representation  
(PEG Output)

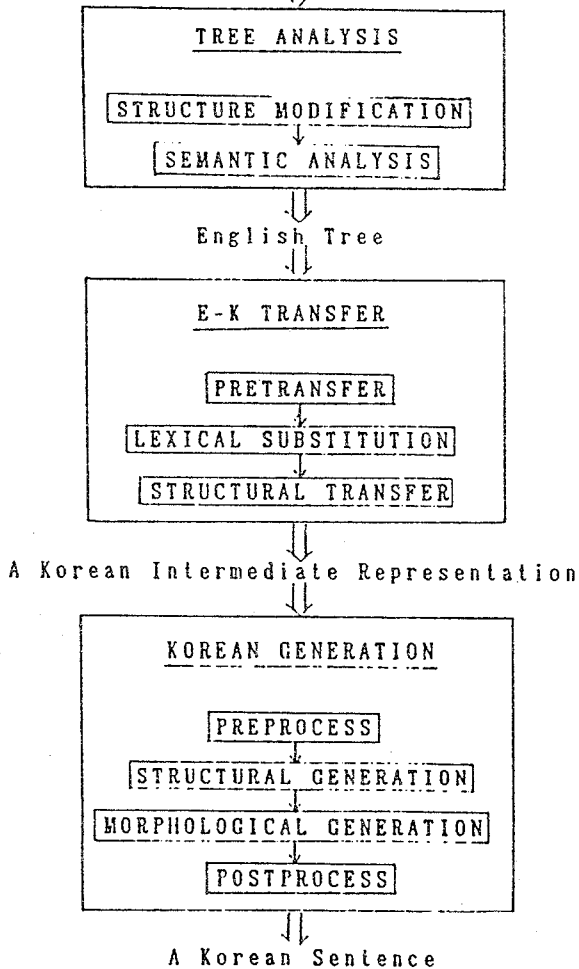


Fig. 1 Structure of KSHALT

Appendix: the output of KSHALT for input sentences

The System gives a message with the current time and date.

시스템은 현재의 시간과 날짜에 대한 메시지를 진한다.

Financial analysts can create models to project investment opportunities.

재정 분석가는 투자 기회를 계획하기 위하여 모델을 생성할 수 있다.

CMS commands let the terminal user process CMS data stored on DASD.

CMS 명령어는 단말기 사용자가 DASD에 저장되는 CMS 데이터를 처리하도록 한다.

The Control Program (CP) manages the resources of the system and creates virtual machines where operating systems can run.

제어 프로그램(CP)은 시스템의 자원을 관리하고 운영 체제가 실행될 수 있는 가상 기계를 생성한다.

Inexperienced professionals and non-professionals can quickly learn how to use VM/SP for their personal needs.

경험이 부족한 전문가와 비전문가는 그들의 개인적인 필요를 위하여 VM/SP을 사용하는 방법을 빨리 배울 수 있다.

System operators and system programmers can receive hands-on training by using a virtual machine rather than using real system time.

시스템 조각자와 시스템 프로그래머는 실 시스템 시간을 사용하는 대신 가상 기계를 사용하는 것에 의해 직접적인 훈련을 받을 수 있다.

These permanent virtual disks are assigned to a virtual machine each time a user starts a terminal session with a virtual machine.

이 영구적인 가상 디스크는 사용자가 가상 기계로 단말기 세션을 시작한 때마다 가상 기계에 할당된다.

When a user enters the CMS/DOS environment, he or she can use available commands to develop and test DOS programs.

사용자는 CMS/DOS 환경으로 들어갈 때 DOS 프로그램을 개발하고 조사하기 위하여 유용한 명령어들을 사용할 수 있다.

## APPENDIX – 2

## 1.3 Narrative: DIVORCE-1

Richard hadn't heard from his college roommate Paul for years. Richard which had borrowed money from Paul which was never paid back, but now he had no idea where to find his old friend. When a letter finally arrived from San Francisco, Richard was anxious to find out how Paul was.

Unfortunately, the news was not good. Paul's wife Sarah wanted a divorce. She also wanted the car, the house, the children, and alimony. Paul wanted the divorce, but he didn't want to see Sarah walk off with everything he had. His salary from the state school system was very small. Not knowing who to turn to, he was hoping for a favor from the only lawyer he knew. Paul gave his home phone number in case Richard felt he could help.

Richard eagerly picked up the phone and dialed. After a brief conversation, Paul agreed to have lunch with him the next day. He sounded extremely relieved and grateful,

The next day, as Richard was driving to the restaurant he barely avoided hitting an old man on the street. He felt extremely upset by the incident, and had three drinks at the restaurant. When Paul arrived Richard was fairly drunk. After the food came, Richard spilled a cup of coffee on Paul. Paul seemed very annoyed by this so Richard offered to drive him home for a change of clothes.

When Paul walked into the bedroom and found Sarah with another man he nearly had a heart attack. Then he realized what a blessing it was. With Richard there as a witness, Sarah's divorce case was shot. Richard congratulated Paul and suggested that they celebrate at dinner. Paul was eager to comply.

#### 1.4 Question-Answering: DIVORCE-1

What happened to Richard at home?

Richard got a letter from Paul.

Who is Paul?

Richard's friend.

Did Richard want to see Paul?

Yes, Richard wanted to know how Paul was.

Had Paul helped Richard?

Yes, Paul lent money to Richard.

Why didn't Richard pay Paul back?

Richard did not know where Paul was.

How did Richard feel when the letter appeared?

Richard felt glad because Paul and he were friends.

What was the letter about?

Paul and Sarah were getting a Divorce.

Did Paul write Sarah?

No, it wasn't Sarah, it was Richard who got the letter.

Why was Paul upset about the divorce?

Paul and Sarah were fighting over the family possessions.

What did Paul do for a living?

Paul was a Teacher.

What did Sarah want?

Sarah wanted to have the car and the house and the kids and the alimony.

Why did Paul write to Richard?

Paul wanted Richard to be his lawyer.

Why did Richard call Paul?

Richard wanted to arrange a meeting with Paul.

Did Richard contact Paul?

Yes, Richard called Paul.

How did Richard contact Paul?

By phone.

How did Paul feel when Richard called?

Paul was happy because Richard agreed to be Paul's lawyer.

Why did Richard eat out with Paul?

Richard wanted to discuss the divorce case with Paul.

What happened to Richard on the way to the restaurant?

Richard almost ran over an old man.

Why did Richard get drunk?

Richard was upset about almost running over the old man.

What happened at the restaurant?

Richard spilled coffee on Paul.

How did Richard feel when the coffee spilled?

Richard was unhappy.

How did Paul feel?

Paul was mad at Richard.

Why did Richard spill the coffee?

Richard was drunk.

How did Richard get drunk?

He drank alcohol.

When was Richard drunk?

At the restaurant.

Why did Richard drive Paul home?

So Paul could change his clothes.

What happened to Paul at home?

Paul caught Sarah committing adultery.

Why did Sarah lose her divorce case?  
Sarah committed adultery.

Why did Richard congratulate Paul?  
Paul won the divorce case.

