Interlingual and Intercultural Communication

Discourse and Cognition in Translation and Second Language Acquisition Studies
Translation Problems and Translation Strategies of Advanced German Learners of French (L2)

Hans P. Krieger, University of Bochum

1. Investigating the Translation Process

In his recent work Gideon Toury (1984a; 1984b) has argued that the majority of current translation studies, especially those restricted to a mere linguistic account of the phenomena, do not meet the needs of translation teaching. Partly in response to this observation he subsequently put forward the notion of the “native translator” as a new conceptual framework for future research in both areas: translation studies and translation teaching.

One cannot but agree with Toury that research in this field should more systematically focus on questions related to the acquisition of Translation Competence (TC), such as: to what degree do different types of bilingualism (co-ordinate - compound, balanced - unbalanced etc.) imply TC? To what degree is TC enhanced by foreign language learning? What type of experience and external feedback is necessary to fully develop TC? What are the effects of formal translation teaching on the TC acquisition process? How do individual differences affect the acquisition process, and to what degree do they determine the level of competence eventually reached by the individual? Translation studies researchers may have been inspired to ask these questions owing to the bulk of analogous questions dealt with successfully in the field of second-language acquisition research. The only model explicitly trying to account for developmental stages in acquiring TC, i.e. that proposed by Harris (1977; 1978; Harris and Sherwood 1978) is largely unsatisfactory for various reasons:

- It is too much concerned with translating as an “innate skill” and is therefore unable to account for the external factors and individual differences influencing significantly the actual performance of bilinguals at translational tasks.

- It relies too heavily on examples of very simple translation furnished by young children (down to the age of two!).

- The extensive use of translation of simple utterances as data material evades the problem of equivalence raised by more sophisticated translational tasks (Note that translation is considered by most researchers a text-bound phenomenon).
Finally the data suffer from methodological inadequacies (in extreme cases subjects were asked to "recall" linguistic events that had taken place 18 years ago; see also Toury 1984b).

In this paper I would like to argue that one necessary prerequisite for a TC acquisition model is a psycholinguistic account of the translation process itself. Until we endeavor to penetrate what has so far been treated as a black box, namely the processes going on in the translator's mind while translating, we shall not be able to discover the underlying principles guiding the gradual build-up of TC. Unfortunately, current translation studies provide only abstract linguistic models of translation as a type of interlingual communication and do not account for the psycholinguistic features of the translation process (as shown by Koller 1974). These two features of analysis have often in fact been confused. In the remaining part of this paper I would like to give a report on a study I have been carrying out for the last year in search of a psycholinguistic model of the translation process in advanced German learners of French as a foreign language. This study is still in progress and therefore most of the concepts I shall present here are still to be considered as tentative.

2. Method

The subjects were eight native speakers of German, all studying to be secondary school teachers of French. All of them were approaching their exams in their last year at Bochum University. Four of them, randomly picked, translated a German text into French (i.e. from L1 to L2), the remainder translated a French text into German (i.e. from L2 to L1). Both types of translation (from and into the mother tongue) were deliberately included to shed light on the processes and strategies involved from different angles.

The two texts chosen for the experiment were both fairly difficult. The French text selected was an article from the satirical journal "Le Canard Enchaîné". The text is concerned with the reshuffling of the French cabinet. It ridicules the idiosyncrasies of certain French ministers. The German text to be translated into French was an article from Düsseldorf's main newspaper "Rheinische Post" and describes in a humorous fashion the odyssey of a field-mouse which happened to bring to a complete standstill the restaurant service in a German Intercity train. The reason for choosing these two articles was the great variety of translation problems the texts posed. In addition to "ordinary" grammatical, semantic and stylistic translation problems found in almost every type of text, these texts included puns, metaphorical expressions and other instances of literary finesse. I wanted these to be included because I assumed that the structure of the translation process would depend on the type of translation problem.

For the elicitation of the processual data the thinking-aloud technique was used, i.e. the subjects were asked to verbalize whatever came to their mind while translating (cf. also the papers by French and Kasper, Garloff, and Löscher, this volume). They were permitted to use all those reference books they were accustomed to use at home, such as monolingual dictionaries, bilingual dictionaries, grammars etc. My role during the translations was basically that of an active listener. I frequently uttered gambits like "ja" and "ja" to encourage the subjects to go on with thinking aloud. All sessions were recorded and transcriptions made (thinking-aloud protocols).

No special transcriptional system was employed, because it was not the features of speech production that were the subject of the study. The length of filled and unfilled pauses was however systematically indicated in the thinking-aloud protocols because it soon became apparent that the concept of hesitation phenomena as indicators of mental processes hitherto applied successfully to the analysis of speech production (cf. e.g. various contributions in Dechert and Raupach 1980; also Möhle and Raupach 1983) was equally applicable to the investigation of the translation process. When the subjects made use of dictionaries or other types of reference books, this was noted in the transcriptions, because strategies also became apparent in the way dictionaries were applied.

The sheer amount of data yielded by the thinking-aloud technique is vividly shown by the length of the transcriptions running up to 214 typed pages put together for 8 subjects only.

The use of the thinking-aloud technique calls for further methodological comment. In the last few years the use of introspective data has increased significantly due to the various studies by researchers such as Andrew Cohen, Carol Hosenfeld, Catherine Bailey and others (for a review of the main research based on introspective data up to 1981 see Cohen and Hosenfeld 1981). Recently Herbert Seliger has given a somewhat skeptical account of the value of such methods (Seliger 1983). His main objection to the use of introspective techniques rests on his assumption that most processes involved in language learning and language use take place at an unconscious level and are therefore inaccessible to self-observation. As it is not possible to discuss fully here the various opinions on the value of introspection put forward in cognitive psychology (for a brief historical outline of the role of introspection in psychology see Weidler and Wagner 1982; for methodological questions in the use of verbal report data see Ericsson and Simon 1980 and Huber and Mandl 1982), I will confine myself to pointing out those arguments that justify the use of the thinking-aloud technique in my study:

1. Since translating is by its very nature a linguistic process, the verbalizations externalize linguistically structured information available in short-term
memory. Most criticism levelled against thinking-aloud data relates, in contrast, to those cognitive operations where non-verbal processes had to be verbalized (e.g. in abstract problem solving tasks; see Ericsson and Simon 1980).

2. The time span between the processing of the information and its verbalization when applying the thinking-aloud technique does not extend beyond a few seconds (“concurrent verbalization” or “immediate retrospection”). Most previous criticism was made with experiments in mind where the subjects, by contrast, had to verbalize their mental processes, after completing the task (see Ericsson and Simon 1980).

3. As research into the translation process is still in its infancy, it is mostly preoccupied with generating rather than testing hypotheses. Even critics of introspective methods are prepared to admit the usefulness of verbal report data for generating hypotheses (e.g. Seliger 1983, 184).

4. The thinking-aloud technique no doubt provides the most direct means of access to the translation process. These theoretical arguments are strengthened by the fact that the subjects experienced no difficulty in complying with the rule of thinking aloud and were able to provide plenty of introspective data.

3. Translation Problems

In the thinking-aloud protocols two basic features of the translation process were evident: the presence of translation problems and a variety of strategies for solving these problems. More than 90% of the utterances were indeed directly referable to problems caused by specific items in the source-language text. I therefore chose these two concepts, translation problem and translation strategy, as basic categories for analyzing the translation process.

The description of translation problems has always been one of the favourite activities of translation pedagogy. But all studies have tried either
— to predict translation problems prospectively on the basis of a linguistic account of the source-language text or
— to identify translation problems retrospectively by an error analysis of the target-language text the subjects produced.

Combinations of these two approaches have been tried out too. As far as its theoretical implications are concerned, the prospective approach resembles somewhat the earlier strong claims of contrastive analysis and evidences similar shortcomings. For it seems to imply that psycholinguistic processes can be fully accounted for in terms of linguistic categories. On the other hand the retrospective approach based on the analysis of the translational errors found in the target-language text the learners produced, can be equally misleading. In my data I found in fact both: problems without errors and errors without problems. Neither the prospective nor the retrospective approach can adequately handle these cases. The identification of translation problems must therefore be based on features of the translation process itself as externalized in the thinking-aloud protocols. The following eleven features (which cannot be discussed here) were used in the study:
— The subjects’ explicit statement of problems
— The use of reference books
— The underlining of source-language text passages
— The semantic analysis of source-language text items
— Hesitation phenomena in the search for potential equivalents
— Competing potential equivalents
— The monitoring of potential equivalents
— Specific translation principles
— The modification of written target-language texts
— The assessment of the quality of the chosen translation
— Paralinguistic or non-linguistic features (e.g. groaning and sighing).

Note that the subjects were not questioned about problems and that the category “subjects’ explicit statement of problems” therefore refers to spontaneous utterances only. The number and variety of indicators ensures that problem indication does not depend exclusively on self-observation on the part of the subjects. This combined procedure for problem indication is in line with one principle all researchers who make use of verbal report data seem to agree on, namely that “the conscious verbal reports of learners about their own internal device cannot be taken as direct representation of internal processing” (Seliger 1983, 189).

The indicators, when applied together systematically, permitted a reliable identification of problems and allowed them to be counted:

<table>
<thead>
<tr>
<th>L2 to L1</th>
<th>L1 to L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrea</td>
<td>34</td>
</tr>
<tr>
<td>Bettina</td>
<td>44</td>
</tr>
<tr>
<td>Christa</td>
<td>52</td>
</tr>
<tr>
<td>Renate</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>282</td>
</tr>
<tr>
<td></td>
<td>total: 454</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
</table>

As shown in Table 1, there are substantial individual variations in the number of problems. A further analysis still to be undertaken will have to uncover to what degree the individual problems coincide. Such an account of the individual differences and similarities might eventually permit a hierarchy of
translation difficulties to be established (based on the number of subjects who had difficulties with a given source-text item).

4. Translation Strategies

Following Faerch and Kasper’s definition of communication strategies as “potentially conscious plans for solving what an individual presents itself as a problem in reaching a particular communicative goal” (Faerch and Kasper 1983a), I assumed that if the concept of translation strategy were of any empirical value, it would have to be linked to translation problems. Applied to my data the criterion of consciousness proved in fact to be inadequate for a clear-cut distinction between strategic and non-strategic features of the subjects’ translational procedure. I shall therefore define translation strategies as “potentially conscious plans for solving a translation problem”. Figure 1 shows a tentative model of the translation process developed on the basis of all 454 translation problems to be found in the data.

Strictly speaking this model can only account for the translation process of the eight subjects. Further studies will have to show the range of applicability of the model (with respect to other subjects, other text types, other languages etc.) I strongly suspect that this model is fairly representative for advanced learners. The structure of the translation process of experienced professional translators might however differ substantially (on this point most participants of the Hamburg Symposium were in agreement). In the remaining part of this paper, I will comment on the main features of this model and draw attention to a number of questions that will have to be handled next in the course of my study.

As shown by the vertical line on the left-hand side of the diagram, the absence of a translational problem coincides with the absence of translational strategies. A source-language text item is directly transformed into a target-language text item.

In this case the translation process is highly automatic; it takes place very quickly and predominantly at an unconscious level. The pertinent verbalizations marked by their scarcity and brevity demonstrate this.

Strategies emerge as soon as the translation cannot be carried out automatically. As far as I can see there seem to be five main sets of strategies involved in the handling of translation problems: strategies of comprehension, strategies of equivalent retrieval, strategies of equivalent monitoring, strategies of decision-making and strategies of reduction.

Comprehension strategies emerge as a consequence of comprehension problems. When encountered in a text to be translated, comprehension problems lead inevitably to translation problems. It seems however that no counter-
check of adequate rendering is undertaken if the translation can be carried out smoothly. Or to put it another way: The semantic processing of the source-language text seemed to be just as deep as required by the translation. One might say that compared to the normal reading of a text, translation leads to a deepened understanding of those passages that cause problems at the expense of the non-problematic areas that are processed superficially.

The main subtypes of comprehension strategies are inferencing and use of reference books. Most of the subjects immediately made use of dictionaries when they encountered lexical items they didn’t know. A wide range of strategies could be observed in the way reference books were used. A particularly frequent strategy consisted in looking up the unknown item in a bilingual dictionary and subsequently checking the appropriateness of the given equivalents in a monolingual dictionary. Inferencing appeared whenever for some reasons the use of reference books was impossible or turned out not to be helpful. The inferencing strategies aimed at filling gaps in the understanding of source-language text passages by relying on all types of interlingual, intralingual and extralingual knowledge. Contextual cues sometimes allowed successful guesses. Inferencing appears predominantly when the source-language text is in the foreign language. It is however not confined to this case. For instance in the German text there appeared the term “Oberzugsgleitung”. All of the subjects stated that they had never come across this term before, but all succeeded in inferring from the context that this could only be the department of the German railway company that draws up the schedules of all trains throughout West Germany. The inferencing strategies observed in my data are not translation-specific and largely coincide with inferencing strategies applied in ordinary text comprehension (cf. Kirsten Haasturp’s interesting research project on inferencing, where thinking aloud protocols were also made use of: Haasturp 1984). In some cases a type of holistic paraphrase technique was applied to facilitate the semantic processing of complex sentences.

The term “retrieval strategies” as used in the literature on communication strategies normally refers to a learner’s conscious attempt to recall a known lexical item especially in the case of a recall problem. Esther Glahn (1980) for instance differentiates six types of retrieval procedure: i. waiting for the term to appear, ii. appealing to formal similarity, iii. retrieval via semantic fields, iv. searching via other languages, v. retrieval from learning situations, vi. sensory procedures. All these retrieval procedures were observed in my data but were confined to cases where subjects had difficulties in recalling a specific lexical item, already learnt, mostly the term for a concrete object for which only one name existed in the foreign language, for example: “wagon-restaurant” for “Speisewagen” (restaurant car) or “passager clandestin” for “blinder Passagier” (stowaway). As soon as the term reappeared in their minds they considered the problem solved. But this type of retrieval was the exception rather than the rule, because normally, for lack of a one-to-one relationship between items in different languages, translation turns out to be a search for an equivalent rather than for the equivalent. The strategies I intend to refer to here might therefore be called more precisely “potential equivalent retrieval strategies”.

The most important retrieval strategy involved in translation seemed to be the recall of fixed interlingual associations. Most of these associations were on the word level and consisted of two directly linked lexical items such as the German word “Gast” and the French word “invité”. All subjects had built up a strong association between these two words and seemed to consider them perfect equivalents, although in a large number of cases the French equivalent of the German word “Gast” (guest) is “client” (e.g. in a restaurant). In a certain way they might be considered a psycholinguistic pendant to what Catford has labelled “highest probability equivalents” (1965). The data provided strong evidence for the presence of such phenomena but do not allow the psycholinguistic processes involved to be accounted for. One might speculate however that associated items are stored together and that whole sets of them build up a neat network of highly stable interlingual associations. Their development is probably due to formal learning, communicative practice and former translation experiences (for a possible theoretical framework from a cybernetical point of view see Sharwood Smith 1979). Since the field of second-language lexical acquisition has so far been greatly neglected (cf. Levenstern 1979), much research will be necessary to fill up the gaps. It seems most promising to compare the lexical features of the translations made by the subjects with the results of intralingual word association tests (cf. e.g. Kielhöfer 1978; Kielhöfer and Schmidt 1982), interlingual word association tests (cf. e.g. Riegel and Zivian 1972; Kolers 1963) and discourse completion tests (Levenstern and Blum 1978).

A second set of retrieval strategies might be labelled “recourse to semantically related items.” If no interlingual word associations could be recalled, the subjects made use of synonyms, paraphrases, superordinate terms, archetypes etc. to set up potential equivalents (cf. the “universals of lexical simplification” as described by Blum and Levenstern 1978). In other cases potential equivalents were found via dictionaries, via previously learnt foreign languages or via situational retrieval procedures. Most interesting questions arise as to the link between such semantically related items and the structure of semantic memory (Tulving 1972) and the potential explicable of such unconscious processes in terms of Quillian’s network model (Quillian 1968; Collins and Quillian 1969).
A characteristic feature of the subjects' translational procedure was the alternating occurrence of retrieval and monitoring strategies. After having retrieved a potential equivalent the subjects normally switched over to monitoring. In the minority of cases the monitoring was concerned with the correctness of an L2-item as such independent of its appropriateness as an equivalent. Here the monitoring strategies coincided with those in free text production or in oral discourse.

Surprisingly, monitoring by means of grammatical rules was involved in only four problems out of 282. If one wished to express one of the results I have obtained so far in terms of Krashen's dichotomy, one would have to say that the overwhelming majority of problems encountered in translations from L1 to L2 were solved on the basis of acquisition, and not on the basis of learning. In most cases however the monitoring was concerned with the appropriateness of target language items as translational equivalents for a given item in the source-language text. The main strategy found during monitoring phases might be called a “spot-the-difference strategy.” By comparing the source-language and the target-language items, the subjects looked for differences between them. As soon as they found differences in meaning, connotation, style or use, they took these as a “contradiction” against the potential equivalent in question. One subject, for instance, found after a troublesome retrieval attempt the potential equivalent “avoir des hallucinations” for the German idiomatic expression “weiße Mäuse sehen.”

But in the following monitoring phase she came to the conclusion that the German expression contained the semantic feature of fear, whereas the French expression, in her understanding, did not. She therefore rejected this rendering and subsequently undertook a new retrieval attempt. This characteristic feature of the translation procedure is illustrated in the diagram by the arrows leading back from monitoring to retrieval.

As shown by the above mentioned example, the learner's intuitions concerning specific L2-items play an important part in the monitoring of the potential equivalents; in this particular case intuition suggested that the French expression does not convey fear. Other examples of intuional knowledge were the beliefs that the French word “bête” exclusively refers to large animals (and therefore cannot be applied to mice), that “Sciences-Po” is colloquial French, that the verb “égratiller” cannot be used in a metaphorical sense etc. As we know, such intuitions about L2 are essential parts of the learners' interlanguage. Unfortunately, investigation has hitherto been restricted to intuitions about grammatical features of L2 (Bialystok 1979; Kohn 1982; Schachter et al. 1976), whereas in translation semantic intuitions are prevalent.

The notion of “reduction strategies” refers to those cases where the translation problem could be solved only by means of formal or functional reduction. The most frequent case of reduction strategy consisted in giving up the markedness or the metaphorical character of a source-language text item and replacing it by a non-marked or a non-metaphorical equivalent.

I would like to finish with some remarks on what I called decision-making strategies. Complications arose when two or more potential equivalents seemed to be equally appropriate or equally inappropriate. When the possibilities of retrieval were exhausted and monitoring of the potential equivalents gave no clear indication what equivalent to choose, most of the subjects tended to resort to specific types of decision-making strategies that might be labelled “translation principles.” In contrast to the monitoring strategies, these translation principles were independent of individual problems and limited to cases where monitoring had not led to a decision.

They are reducible to imperatives such as, to give a few examples: “If all competing potential equivalents turn out to be equally appropriate or inappropriate, take the most literal one!” or alternatively: “Take the shortest one!” A further principle is concerned with reference books stating: “If one of the equivalents is to be found in the bilingual dictionary and the other one is not, take the one from the dictionary!” or: “If all equivalents concerned are in the dictionary, take the one that precedes the others!” A very subtle principle was involved in the case where one subject systematically avoided translating with the same French word “pester” two German words “fluchten” and “schimpfen.” He stated explicitly that his rule was to avoid translating different items in the source-language text with only one item in the target-language text, and therefore persisted in searching for two items in the target-language. What was even more astonishing was that the same subject explicitly tried to avoid translations where the rendering was 10% longer than the original counting the number of words. These examples provide strong evidence for the existence of special decision-making strategies. They also show that in the data a substantial number of translation-specific strategies can be observed. Some of them were very refined, others were highly idiosyncratic. All of them were particularly interesting to analyse. Taking the synoptical model as a whole it has to be borne in mind that the subcategorization represents first results only and calls for further elaboration.

What needs to be done next is
- to work out a more detailed description of the translation strategies found in the data
- to investigate in greater detail the individual differences in strategy use and
- to provide a conceptual framework for the interrelationship between the learners' interlanguage and the features of their translational procedure.

It will then be possible to investigate an individual's translation process at
different points in time and to interpret changes in his translational strategies as changes in his translational competence. Such longitudinal studies of the translation process will undoubtedly constitute a valuable contribution to our understanding of the gradual build-up of translational competence.

References


Linguistic Aspects of Translation Processes: Towards an Analysis of Translation Performance*

Wolfgang Lorschzer, University of Essen

1. Introduction
This paper presents a project in which (psycho-)linguistic aspects of the translation process are investigated. The research is founded upon the hypothesis that every individual who has a command of two or more languages (with various degrees of proficiency) also possesses a rudimentary ability to mediate between these languages.1 This rudimentary ability may be considered to be the basis of all translating and is the main object of the research.

2. Outline of the Project
The empirical basis of the investigation in its first stage is fifteen oral translations of two written texts. The translations (German – English) were performed orally and tape-recorded. It is assumed that this procedure reveals more aspects of the language production process, and thus the translation process, than would written translations (Goldman-Eisler 1980).

The fifteen test subjects had little experience and training in translation and only partial competence in the target language (TL). They were asked to

---

1 Thank Dr. R. Brun and Dr. F. Heinemann for looking through the English version of this paper.
2 Support for this hypothesis comes from research into natural translation, i.e. “translating done in everyday circumstances by people who have had no special training for it” (Harris and Sherwood 1978:155). According to Harris (1977) and Harris and Sherwood (1978), the basic ability to translate is an innate verbal skill, which, in the case of bilinguals, develops quasi-automatically into a bi-directional competence of translating from one language into the other and vice versa. Whether the application of this competence really leads to performance products which are semantically and/or communicatively equivalent to the respective SL text, or whether it rather leads to an approximate mediation of information between an SL and a TL text has hardly been investigated and cannot be decided here.

It is certain, however, that people who are in possession of a native language and an interlanguage system do not develop translational competence automatically. But they seem to develop automatically a rudimentary ability to mediate between the languages they possess. And as they do in fact mediate from the very beginning, the hypothesis of an innate basic ability to translate seems sound and justified.