A Functional Approach to Translation Studies:

new systemic linguistic challenges in empirically informed didactics

Dissertation
zur Erlangung des akademischen Grades eines
Doktors der Philosophie
der Philosophischen Fakultäten
der Universität des Saarlandes

vorgelegt von

Robert Spence

aus Sydney, Australien

Spence, Robert:
A Functional Approach to Translation Studies: new systemic linguistic challenges in empirically informed didactics / Robert Spence. – Als Ms. gedr.. –
Berlin : dissertation.de – Verlag im Internet GmbH, 2004
Zugl.: Saarbrücken, Univ., Diss., 1999
ISBN 3-89825-777-0

Der Dekan:	Prof. Dr. Roland Marti
Berichterstatter:	Prof. Dr. Erich Steiner Prof. Dr. William Barry

Tag der letzten Prüfungsleistung: 16.02.1999

Bibliografische Information Der Deutschen Bibliothek

Die Deutsche Bibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.ddb.de> abrufbar.

Copyright dissertation.de – Verlag im Internet GmbH 2004

Alle Rechte, auch das des auszugsweisen Nachdruckes, der auszugsweisen oder vollständigen Wiedergabe, der Speicherung in Datenverarbeitungsanlagen, auf Datenträgern oder im Internet und der Übersetzung, vorbehalten.

Es wird ausschließlich chlorfrei gebleichtes
Papier (TCF) nach DIN-ISO 9706 verwendet.
Printed in Germany.

dissertation.de - Verlag im Internet GmbH
Pestalozzistraße 9
10 625 Berlin

URL: http://www.dissertation.de

Zusammenfassung

In der vorliegenden, in englischer Sprache verfaßten Arbeit werden anhand eines hauptsächlich aus studentischen Übersetzungen bestehenden Textkorpus Grenzen und Möglichkeiten einer Anwendung des sprach- bzw. texttheoretischen konzeptuellen Rahmens des Britischen Kontextualismus ([Steiner 1983]) — einer in Großbritannien enstandenen, weitgehend eigenständigen Schule der modernen Sprachwissenschaft — auf dem Gebiet der Übersetzungswissenschaft untersucht.

Dem Textkorpus, das zwischen 1988 und 1993 im Laufe einer mehrjährigen Tätigkeit des Autors als Lehrer im Hochschuldienst im Wissenschaftsbereich Englische Übersetzungswissenschaft, Sektion Theoretische und Angewandte Sprachwissenschaft, Universität Leipzig zusammengetragen wurde, gehören neben 52 deutschsprachigen Ausgangstexten auch insgesamt 1232 englischsprachige Zieltexte, wovon 1165 von 220 Studierenden stammen, die in der überwiegenden Mehrzahl Deutsch als Muttersprache haben, und weitere 67 von 8 englischen Muttersprachlern verfaßt wurden.

Die Arbeit verfolgt fünf Hauptziele und vereint fünf grundlegende theoretische Positionen.

Die Hauptziele der Arbeit umfassen:

1. Darstellung des Textkorpus selbst, einschließlich einer Erläuterung der Prinzipien, nach welchen seine Zusammenstellung erfolgt ist
2. Klassifizierung der im Textkorpus enthaltenen sprachlichen und translatorischen Fehlleistungen mittels der Begriffssysteme des Britischen Kontextualismus
3. Modellierung einiger dieser Fehlleistungen mittels des Interferenzbegriffs, welcher eine zentrale Rolle bei der Erklärung der Fehlleistungen spielt
4. Entwicklung theoretisch fundierter, praktisch anwendbarer Methoden für die Bewertung von Übersetzungen
5. Unterbreitung eines Vorschlags für eine auf den Ergebnissen der multilingualen Textgenerierung im Rahmen der Künstlichen Intelligenz basierende, computergestützte Übersetzerausbildung.

Die in der vorliegenden Arbeit vereinten theoretischen Positionen können wie unten aufgelistet zusammengefaßt werden:

1. strikte Einhaltung des empirischen Prinzips, im Sinne einer ausschließlich auf Beobachtetem basierenden, d.h., sich nur auf Textbelegen stützenden Aufstellung und Überprüfung von Hypothesen
2. eine kategorische, wenn auch etwas kontroverse Einordnung der Übersetzungswissenschaft in die Reihen der Sprachwissenschaften (im weitesten Sinne) als Teilgebiet einer angewandten Textwissenschaft
3. eine durchgehend funktionale Orientierung bezüglich sämtlicher sprachtheoretischer Fragestellungen

4. konsequente Anwendung der Metapher einer Computersimulierbarkeit von Übersetzungsvorgängen, im Sinne einer anzustrebenden, empirisch überprüfbaren Formalisierbarkeit solcher Vorgänge
5. eine alles überragende Beschäftigung mit der Frage der Didaktisierbarkeit des Übersetzens im Rahmen einer universitären Berufsausbildung

Kapitel 1 der Arbeit enthält neben einer näheren Erläuterung und Begründung der oben aufgestellten theoretischen Positionen auch eine kurze Darstellung der Ursprünge und frühen Entwicklungsgeschichte, sowie des ursprünglichen didaktischen Rahmens des Vorhabens.

In **Kapitel 2** werden einige der Hauptprobleme der modernen Übersetzungswissenschaft kurz umrissen, sowie Vorschläge für eine sinnvollere Zusammenarbeit zwischen angewandter Sprach- und theoretischer Übersetzungswissenschaft gemacht. Zu den wichtigsten Fragestellungen auf diesem Gebiet gehören neben der Formalisierbarkeit und Didaktisierbarkeit des Übersetzens auch die Erarbeitung eines adäquaten Modells für die Evaluierung translatorischer Leistungen, sowie die Präzisierung des Funktionsbegriffs innerhalb der theoretischen Übersetzungswissenschaft.

Kapitel 3 ist der sprachwissenschaftlichen Theorie gewidmet, welche dem Vorhaben zugrunde liegt und in deren konzeptuellem Rahmen sämtliche im Laufe der Arbeit aufgestellten Hypothesen formuliert sind: dem Britischen Kontextualismus. Nach einer Auflistung der wichtigsten Vor- und Nachteile, welche diese Theorie und die in ihr enthaltenen Begriffssysteme mit sich bringen, werden Ursprünge und Entwicklungsgeschichte der Theorie kurz dargestellt. Einer detaillierten Erläuterung der zentralen theoretischen Begriffe (paradigmatisches System und syntagmatische Struktur; Beschreibungsebenen; die Begriffe ‘Rang’, ‘Metafunktion’, und ‘Differenzierung’) folgt eine kurz gehaltene Diskussion der Beziehungen zwischen ‘Text’ und ‘Kontext’, sowie einiger neuerer Entwicklungen, die für die Übersetzungswissenschaft, einschließlich der maschinellen Übersetzung, von Interesse sein könnten. Anschließend werden einige der Probleme und Ziele erläutert, die bei einer Anwendung der Theorie auf dem Gebiet der Übersetzungswissenschaft entstehen bzw. erreicht werden könnten.

In **Kapitel 4** wird zuerst die Frage der Adäquatheit des gewählten sprachtheoretischen Modells bezüglich der Arbeit mit translationsorientierten Textkorpora und studentischen Fehlleistungen gestellt. Als nächstes wird dann das Leipziger Korpus studentischer Übersetzungen unter Berücksichtigung der konkreten historischen Umstände seiner Entstehung dargestellt, sowie einige Bemerkungen zum Umgang mit diesem Korpus und Vorschläge für dessen weitere Entwicklung gemacht. Anschließend wird etwas näher auf die Frage der Klassifizierung von Fehlleistungen nach Grad (Auswirkungen auf den Zieltext) und nach Typ eingegangen. Es wird auch die Frage wieder aufgegriffen, in wie weit eine hauptsächlich der Sprachwissenschaft entsprungene Theorie in der Lage ist, mit der systematischen Beschreibung von in erster Linie dem Bereich der Texttypologie und der Übersetzungstheorie zuzuordnenden (und einer nicht unerheblichen Zahl von studentischen Fehlleistungen zugrundeliegenden) Problemen zurechtzukommen.

Kapitel 5 ist als Pilotstudie gedacht und ist der Untersuchung von 100 studentischen

Übersetzungen eines Ausschnittes aus einem kurzen Zeitungsbericht gewidmet, der 1988 in einer ostdeutschen populärwissenschaftlichen Zeitschrift anläßlich der Vorlage des jährlichen Berichts des Bevölkerungsfonds der Vereinten Nationen zur demographischen Entwicklung der Erde erschienen ist. Diese 100 Übersetzungen bilden zusammen eines der vielen möglichen Subkorpora, die sich innerhalb des Gesamtkorpus definieren lassen.

In **Kapitel 6** werden grundlegende Fragen der Ausdehnbarkeit der Pilotstudie auf weitere Teile des Korpus erläutert. Der in Kapitel 5 behandelte Text über das Bevölkerungswachstum auf der Erde ist in vielerlei Hinsicht ein doch recht 'untypischer' Ausgangstext, obwohl er auch außerhalb des didaktischen Bezugsrahmens durchaus als zur Klasse der 'zu übersetzenden' Texte gezählt werden und für Unterrichtszwecke eine nützliche und lehrreiche Übung darstellen kann. Jedoch besteht Grund zu der Annahme, daß die Wahl des Weltbevölkerungstexts, der dem Übersetzenden vorwiegend Schwierigkeiten im Bereich der Lexikogrammatik bietet, zu einer Überbewertung des stark sprachwissenschaftlich orientierten analytischen Modells geführt haben könnte. Unter Bezugnahme auf weitere Subkorpora innerhalb des Gesamtkorpus wird versucht, die tatsächliche Erweiterbarkeit des Modells auf andere Textsorten, in denen dem Übersetzer eine größere Anzahl an 'translatologischen' Problemen geboten wird, unter Beweis zu stellen.

In **Kapitel 7** wird ein Vorschlag für eine computergestützte Übersetzerausbildung unterbreitet. Der Vorschlag basiert auf der Vorstellung, es sei möglich, unter Anwendung einer maschinell implementierten, 'generativen' Version der zentralen Begriffssysteme des Britischen Kontextualismus, ein Computerprogramm zur zumindest teilweisen Steuerung von konkreten übersetzerischen Entscheidungsprozessen zu entwickeln.

In **Kapitel 8** werden die Ergebnisse der Studie noch einmal kurz zusammengefaßt.

Anhang A enthält eine Auflistung aller Abkürzungen und Konventionen, von denen in der Arbeit Gebrauch gemacht wurde.

In **Anhang B** werden einige statistische und textlinguistische Angaben zum Korpus gemacht. Darauf folgt ein Ausdruck der 100 in Kapitel 5 besprochenen studentischen Übersetzungen.

Anhang C enthält zusätzliches Material zum Ausgangstext Nr. 48; dieses Material besteht teilweise aus Unterlagen, die 1992 vom Autor im Zusammenhang mit einem von ihm auf dem 19. 'International Systemic Functional Congress' an der Macquarie University, Sydney, Australien gehaltenen Vortrag erstellt wurden.

Anhang D enthält zusätzliches Material zum Ausgangstext Nr. 36; dieses Material besteht teilweise aus Unterlagen, die 1991 vom Autor im Zusammenhang mit seiner Teilnahme an einem übersetzungswissenschaftlichen Hauptseminar im Wissenschaftsbereich Englische Übersetzungswissenschaft der Universität Leipzig erstellt wurden.

MEPHISTOPHELES:
Was diese Wissenschaft betrifft,
Es ist so schwer, den falschen Weg zu meiden,
Es liegt in ihr so viel verborgnes Gift,
Und von der Arzenei ist's kaum zu unterscheiden.
Am besten ist's auch hier, wenn Ihr nur *einen* hört,
Und auf des Meisters Worte schwört.
Im ganzen — haltet Euch an Worte!
Dann geht Ihr durch die sichre Pforte
Zum Tempel der Gewißheit ein.
SCHÜLER:
Doch ein Begriff muß bei dem Worte sein.
MEPHISTOPHELES:
Schon gut! Nur muß man sich nicht allzu ängstlich quälen;
Denn eben wo Begriffe fehlen,
Da stellt ein Wort zur rechten Zeit sich ein.

Goethe: *Faust*: I: 1984–96.

Contents

1 Introduction 1
- 1.1 Aims and perspectives 1
- 1.2 Origin of the study 9
- 1.3 Outline 14

2 Linguistics and Translation Studies 15
- 2.1 A fundamental misunderstanding 15
- 2.2 Translation and languages 16
- 2.3 Translation and texts 17
- 2.4 Translation and cultures 19
- 2.5 Translation as process 19

3 Applicability of systemic functional linguistics 21
- 3.1 Why systemic functional linguistics? 21
- 3.2 Origins and development of SFL 29
- 3.3 Paradigmatic versus syntagmatic relations 32
- 3.4 Strata and ranks 41
- 3.5 Metafunctions 47
- 3.6 Context 50
- 3.7 Probability and frequency 51
- 3.8 Translation quality assessment as an application 53
  - 3.8.1 The problem 53
  - 3.8.2 Some systemic functional positions 54

4 A corpus-based approach to error analysis 59
- 4.1 Prolegomena 59
  - 4.1.1 Operational adequacy of systemic functional linguistics 59
  - 4.1.2 Systemic functional linguistics and text corpora 60
  - 4.1.3 Systemic functional linguistics and error analysis 61
- 4.2 The texts 64
  - 4.2.1 Principles of corpus design 64
  - 4.2.2 The source texts 66
  - 4.2.3 The target texts and the translators 68
  - 4.2.4 Data storage and processing 74
  - 4.2.5 Storage and display formats 75
  - 4.2.6 The problem of drafts 77

4.2.7 Subcorpora 78
4.3 The errors 79
4.3.1 Errors and translation quality assessment 79
4.3.2 Error classification: current practice 85
4.3.3 Towards a provisional error classification scheme 90
4.3.4 Error data storage 95
4.3.5 ‘Higher-level’ errors 97

5 A Trial Study 105
5.1 The *Weltbevölkerung* text 105
5.2 Overview of most common errors 106
5.2.1 Chunk 1 `[48.00.01]` 106
5.2.2 Chunk 2 `[48.01.02]` 116
5.2.3 Chunk 3 `[48.01.03]` 120
5.2.4 Chunk 4 `[48.02.04]` 122
5.2.5 Chunk 5 `[48.02.06]` 125
5.2.6 Chunk 6 `[48.02.08]` 128
5.2.7 Chunk 7 `[48.02.09]` 129
5.3 Conclusions to be drawn from the trial study 130

6 Extending the methodology 131
6.1 The ‘atypicality’ of the *Weltbevölkerung* text 131
6.2 A further text 133
6.2.1 Higher-level contextual functions and determinations 133
6.2.2 Field 134
6.2.3 Personal tenor 135
6.2.4 Mode 135
6.3 Future directions 136

7 Didactic applications 139
7.1 Short- to medium-term applications 139
7.1.1 Corpus-based error prediction 139
7.1.2 Thematic lesson-planning 140
7.1.3 Visual versus oral processing 140
7.1.4 Dangers, disadvantages, and possible solutions 142
7.2 Medium- to long-term applications 144
7.2.1 A proposal for computer-aided translation teaching 144
7.2.2 Software requirements 144
7.2.3 Metalanguage requirements 146

8 Summary 147

A Abbreviations and conventions 151
A.1 Abbreviations 151
A.2 Capitalization conventions 166
A.3 System network conventions in running text 166
A.4 Boundary markers for grammatical units 166

A.5 Structural transcription showing boundary markers in action 166
A.6 Interdependency (taxis) 167
A.7 Logicosemantic relations 167
A.8 Interdependency combined with logicosemantic relation 167
A.9 Structural transcription showing symbols for interdependency and logicosemantic relation 168
A.10 System network conventions (1) 169
A.11 System network conventions (2) 170
A.12 Realization operators 171
A.13 Functional grammatical analyses: examples 171
A.14 Boundary markers for phonological units 173
A.15 Rhythm 173
A.16 Tonality (division of utterance into tone groups) 173
A.17 Tonicity (placement of tonic focus within tone group) 173
A.18 Tone (choice of intonation contour) 174
A.19 Phonological structure of tone group 174
A.20 Primary and secondary tones 174
A.21 Phonological transcriptions: English 180
A.22 Interlinear phonological transcriptions: English 182
A.23 Interlinear phonological transcriptions: German 183
A.24 Intonation as realization of information structure 184

B The corpus **185**
B.1 List of source texts 185
B.2 Number of translations of each source text 187
B.3 Text [48]: 100 translations 188

C Additional material relating to text [48] **239**
C.1 A typical loud-reading of source text [48] 239
C.2 Functional grammatical analysis of source text [48] 240
C.3 A text with no effective processes? 260

D Additional material relating to text [36] **263**
D.1 Clause complex structures in the English version 263
D.2 Clause complex structures in the German version 265
D.3 Transitivity in the English version 267
D.4 Theme selection in the English version 271
D.5 A typical loud-reading of the English version 272

Bibliography **275**

Chapter 1

Introduction

1.1 Aims and perspectives

Although the present work is concerned with problems of translation, it is intended primarily as a contribution to applied linguistics and not as a contribution to translation studies. This distinction implies no criticism of the latter discipline, nor should the making of it be construed as a principled rejection of interdisciplinarity: it is precisely the aim of the present work to build a bridge between the two disciplines. Building bridges, however, requires that the distance to be spanned should under no circumstances be underestimated. If at times it appears that the tensions between the opposing (but potentially complementary) perspectives of applied linguistics and translation studies are being deliberately exacerbated, the reader may rest assured that this policy is being pursued with a sole desire: that the reconciliation of the two disciplines be swift, precise, and sustainable.

The borders of an academic discipline should not be thought of as coinciding with, or as being definable by reference to, the boundaries between different (naïvely defined) ‘objects of study’. It is not seldom the case that different disciplines turn out in fact to be investigating the same ‘thing’, but proceeding from different assumptions, using theories grounded in different philosophical traditions, and posing different questions in the pursuit of different intellectual aims. The different orientations of the observers, however, necessarily result in different sets of observed phenomena, and thus define (this time in a less naïve sense:) different ‘objects’ – even if the observers consider that they are all focusing their attention on ‘the same thing’. To express this in slightly different terms: “‘facts’ are constructed by theories” [Halliday ²1994: xii]. The process of translating between languages, and the results of this process, can be investigated for a variety of purposes, from a variety of theoretical standpoints, using a variety of different metalanguages. No one discourse on translating and translation should be viewed as superordinate to the others.

The present work has as its aims:

- to present a corpus-based study of errors made by translation students in the course of attempting to translate from their native German into English;
- to classify the errors using the theoretical framework of systemic functional linguistics;
- to model a subset of these errors in terms of interference between the different paradigmatic architectures of the source and target language systems and the associated culture systems;
- to contribute to the development of better methods of assessing translation quality, and in the process to reduce the 'surface tension' between applied linguistics and translation studies;
- to suggest ways in which a systemic functional multilingual text generation system could be used in the training of translators.

It is hoped that the study will be useful both to the applied linguistics and to the translation studies community.

The study attempts to combine five basic perspectives:

1. a commitment to empirical, corpus-based research methodology;
2. the view of translation studies as a branch of applied text linguistics;
3. a strong functional orientation in questions of linguistic theory;
4. the belief that the translation process is at least partly modelable by computer;
5. an overriding concern with practical paedagogical applications.

It is likely that many potential readers of the work will not share all of these perspectives. A few words of explanation are therefore in order:

1. Affirming a commitment to empirical, corpus-based research methodology implies a rejection of one of the central tenets of the MIT school of linguistic thought, and it is only fair to warn readers trained within the MIT tradition that the present work is inimical both to the spirit and to the letter of Chomskyan linguistics. In particular, no attempt will be made in the course of the work to model a purported faulty individual 'competence' in the foreign target language English; throughout, it is a sociolinguistic ('interorganism') perspective which has been adopted, not a psycholinguistic ('intraorganism') one. The concentration on the collective rather than on the individual removes the entire basis for any kind of 'competence'/'performance' distinction. The 'competence' of the collective is simply a pattern immanent in its 'performance': it is the (probability-based) 'potential', which is instantiated in the (frequency-based) 'actual' (i.e., in the textual product(s) observed). There are two reasons why no transcendent level of 'individual competence' is postulated. First, such a level is superfluous (being derivable — in an immanent, rather than a transcendent form — by differentiation

from the ‘collective potential’, or by statistical calculation from the ‘individual actual’). Second, the postulation of a level of individual competence — in a transcendent form — leads to the framing of untestable hypotheses (i.e., it is mystificationist).

The present work is empirical in the sense of being based on observation, not in the stricter sense of being based on experiment. It tests its hypotheses about the immanent collective competence solely by reference to the data obtained from the corpus, while at the same time attempting to identify the factors that a future experimental study might usefully try to vary artificially.

2. Putting forward the view of translation studies as a branch of applied text linguistics is likely to have already invoked either the ridicule or the outrage of readers whose daily struggles against the prejudices and funding priorities of state and university administrations have disposed them to defend the theoretical and organizational autonomy of the former discipline at all costs and under all circumstances. Such readers are urged to consider the possible meanings of the word *branch*. What is in fact intended has nothing to do with the notion of a *branch office*; rather, it is the botanical metaphor that is relevant here. Viewing translation studies as a ‘branch’ of applied text linguistics means recognizing the structural integrity of the former discipline, while not forgetting the important metabolic processes that connect it to the rest of a larger living organism. We could call the tree as a whole simply ‘linguistics’, provided the latter term was understood in its true sense — as an inherently ‘applied’ discipline concerned with the cultural phenomenon of ‘text’. The linguistics on which the present work is based — systemic functional linguistics — recognizes neither an epistemological nor an organizational distinction between ‘theoretical’ and ‘applied’ perspectives; and its descriptive object is text production in particular cultures.

   Unfortunately, the hegemonic position of the MIT school within linguistics has narrowed the scope of mainstream linguistic enquiry to such an extent that many other disciplines concerned in one way or another with language have concluded that linguistics has nothing of value to offer them. In the case of translation studies, the hostile stance toward linguistics may even have encouraged the growth of erroneous ideas about language itself. Perhaps a student of the German branch of translation studies (*Übersetzungswissenschaft*) may be allowed to speak for the discipline as a whole; her remarks are symptomatic of two fundamental misconceptions about language and text, both of which are widespread within the translation studies community and both of which need putting right promptly. After a seminar on translation at the University of the Saarland in summer semester 1995, the student said: *Was mir dabei am meisten gefallen hat, war die Tatsache, daß der Blick immer auf den konkreten* **Text** *gerichtet war, und nicht auf irgendwelche* **System***ebene.* Readers familiar with the Hjelmslevian sense of the terms **system** (as exemplified by *language*) and **text** (as an exemplification of *process*; cf [Hjelmslev 1961: 9-10, 12-13]) are certain to find this remark puzzling, unless it is pointed out to them that the student was using the word *System* with reference to the German technical term *Systemlinguistik*, by which is meant:

> Linguistik des Sprach*systems,* die ihre Erkenntnisinteressen auf die Analyse der Sprache als eines regelgeleiteten Systems richtet und z. B. Sätze als grammatisch wohlgeformte, situations- und kontextunabhängige Strukturen betrachtet (auch: *Kompetenz*-Linguistik). Die Kritik an der S. hebt hervor, daß es darum gehen müsse, Sprache als situationsbedingtes, intentionales und effektives Handeln im Rahmen sozial-kommunikativer und pragmatischer Bezüge zu erfassen. Die Kritik an der S. leitete in den 70er Jahren die sog. pragmatische Wende ein.
>
> [Lewandowski ^{5}1990: 1141]

That the term *Systemlinguistik* is weighed down by connotations related to the situation- and context-independent grammatical well-formedness of sentences is particularly unfortunate for systemic functional linguists (who often call themselves simply ‘systemicists’, thus almost inviting misunderstanding!): systemic functional linguistics has never separated the study of language-as-system from the study of the contexts and situations in which language is used, and thus had no need to change course in the direction of pragmatics in the 1970s. In fact, the school of linguistic thought from which systemic functional linguistics stems — Firthian or ‘London school’ linguistics, known in Germany as the school of ‘British Contextualism’ (cf [Steiner 1983]) — has been doing something very similar to pragmatics since the 1930s; the disagreements systemic functional linguists have with modern pragmaticians are related largely to the fact that the latter adopt an intra-organism, language-system-external perspective on phenomena which the former view from an inter-organism, language-system-internal perspective.

Different perspectives lead to differently weighted descriptive priorities. The **inter-organism perspective** makes the notion of ‘intentionality’ essentially superfluous, while leaving untouched the notions of language as a kind of ‘situationally conditioned’ activity that produces certain ‘effects’. The **language-system-internal perspective** involves both a qualitative and a quantitative redefinition of the traditional notion of language-as-system: a qualitative redefinition, in that the internal structure of the language system itself (Saussure’s *langue*) is viewed as being determined by the most general functions language is required to serve in the sum of social contexts in which it is used to create actual individual instances of *parole*; and a quantitative redefinition, in that the language system is not merely the potential for creating grammatically well-formed sentences, but is rather, in the Hjelmslevian sense [Hjelmslev 1961], the entire semiotic potential whose activation is the process of creating situationally-appropriate *text*. It is thus as logically absurd from a systemic functional point of view as it is from a Hjelmslevian one to attempt to conceive of ‘a concrete text’ without a system (a language) ‘underlying’ and ‘enabling’ that text; and since every text is embedded in a situation, the potential for ‘generating’ texts (a potential which is immanent in, not transcendent of, text) must necessarily be conceived as being embedded in the potential for generating situations — i.e., as being embedded in a culture.

It is important to remember that texts interface not with (a naïvely defined) 'external reality', but with culture-specific structures of knowledge and belief, culture-specific relations of interpersonal authority and power, and culture-specific conventions about the roles and values to be ascribed to texts themselves. These structures, which are present in every situation in which text is created, are no less systematic than the structures of clauses or nominal groups; and it is the task of the theory of language to describe the systems of patterned alternation underlying *all* of the structures relevant to the possible (and impossible) uses of language in the life of communities of speakers, listeners, writers, and readers.

One of the possible uses of language in the life of a community is TRANSLATION, for which we adopt Neubert's [1986: 6] definition: 'text-induced text production'. The specific task of translation studies is to describe both the nature of the 'induction' and the effects brought about by being producing text for someone who was not a party to the production or consumption of the source text. It is precisely the *difficulty* of this task that guarantees the epistemological and organizational autonomy of translation studies as a separate discipline within the larger organic whole of linguistics.

3. Adopting a strong functional orientation in questions of linguistic theory means, essentially, giving up the belief that there is a level of 'meaning' in language which is somehow separate from, and opposed to, a level of 'grammatical structure'.

   Linguists accustomed to formal theories of syntax and to formal or model-theoretic treatments of semantics often find it difficult to grasp the fundamentals of the functionalist approach. It can sometimes be helpful in such cases if it is pointed out that linguistic functionalists are attempting to construct a **non-Cartesian linguistics**, in the sense of a linguistics that is not based on a dualism of meaning and form (paralleling the traditional philosophical dualism of mind and matter). A non-Cartesian linguistics is also, at least potentially, a **materialist** theory of language. Readers unable to integrate such concepts into their understanding of what language is (and what linguistics should therefore be doing) may find it helpful to remember that the functional perspective on language has its origins not in the **philosophical/logical**, but in the **ethnographic/rhetorical** tradition of linguistic investigation; within the latter tradition, the study of 'meaning' is not a question of the 'truth value' of utterances, but a question of the effects an orator can achieve by using particular devices in particular situations, or a question of the conditions under which members of a particular culture typically engage in certain kinds of linguistic (or economic, or sexual, or religious ...) *behaviour*, and how that behaviour typically relates to the other systems of belief and behaviour that characterize and further the life of their community and its ideologies and institutions.

4. Expressing the belief that the translation process is modelable by computer involves the risk of falling between two ideological/institutional stools. On the one hand, it is a central tenet of modern academia that everything which is amenable to scientific description is ipso facto formalizable and therefore (and in the final analysis, and at least in theory:) amenable to computer simulation. On the other

hand, it is an equally highly cherished principle that certain kinds of creative human activity — precisely because they are creative, and human — are *not* formalizable, and hence, not even in theory computer-simulable. The respective institutional embodiments of these two ideological standpoints are 'the sciences' and 'the humanities'; and the study of language, perched atop the highest peak of the Great Institutional Divide, is subjected to a gravitational force liable to roll it to one side or the other at random.

Given such a precarious position, linguistics (in the broadest extension of the term, whereby translation studies is automatically included) would do well to overcome its vertigo and exploit the strategic advantages accruing from its location in the academic landscape and from the nature of its object. Language — the immediate target of expansionist forces on both sides of the institutional divide — is at the same time that object of study most immediately likely to expose the internal contradictions in each of the two ideologies attempting to hegemonize it.

If the attack comes from the humanities side ('translating is an art — a creative process — like all kinds of (re)-writing — no animals or machines can do it — only human beings!'), linguistics is in a position to subject the notion of 'creativity' to a drastic relativization. What *is* 'creativity', exactly, when viewed from a linguistic perspective? Creativity consists in making selections from preexisting sets of options, combining preexisting elements in new ways, taking advantage of contradictions in the *system* of options (or possible element-combinings) so as to make new and unexpected combinations which bend the rules without breaking them, thus expanding the total set of options by playing off its separate levels and dimensions one against the other. Without the limitations imposed by the system, the creative urge would be dissipated in an endlessness of undifferentiation and entropy; no literature — or any other kind of art — can be created without conventions that constrain. But the study of systemic constraints on creative processes is precisely what linguistics (or more generally: its superordinate discipline, semiotics) specializes in; and thus the more likely outcome of the encounter between linguistics and the humanities is not that the study of language will be pulled into the sphere of the latter, but that the academic study of music, painting, sculpture, etc., will increasingly come to be incorporated as branches of semiotics.

If the attack comes from the sciences side ('translating is a mechanical process — like all kinds of (re)-writing — it can be performed by machines because it can be described formally — even the question of what texts 'mean' can be treated formally, because semantics is about the truth values of statements that refer to (classes of) objects in the real world'), linguistics can frustrate its predator by simply allowing it to bite off as much as it thinks it can chew; when the predator is forced to regurgitate its undigestible prey it may be somewhat more disposed to reconsider its basic philosophical assumptions. *παϑήματα μαϑήματα* — experience teaches.

Are natural language processes — including translation — formalizable, and therefore potentially computer simulable? Should linguistics — including translation studies — view itself solely in terms of the intellectual paradigms of 'the sciences'? Machine translation is the oldest and least successful of all the computational applications of linguistics; its initial lack of success in the 1950s was due precisely to the misguided belief that language is a kind of 'code' or 'cypher' — which a powerful-enough computer, properly programmed and allowed to run for a sufficient amount of time, should be able to 'decypher' and then 're-encode' in another form. The fallacy of treating language as a code has been exposed with admirable pungency by Ellis [1993]; the most concise portrayal of the historical context in which the first generation of machine translators fell victim to the fallacy is provided by Bátori [1989].

Language is not a code. It does not function to en- and de-cypher information. Rather, language is the system that creates that very 'information' in the first place. It is an ideological device for structuring consciousness, a device which fulfils its function via a complex iconic mapping of the social structure onto categories of experience created expressly for that purpose; at the same time, it is a device for indexically symbolizing (and thus enacting) the complex role relations that constitute the social structure itself.

To the extent that the sciences prefer the intellectually simpler notion ('language encodes categories that are objectively present in reality'), their naïve realist paradigms turn out to be no less vulnerable to the ideological aftershock of a first encounter with linguistics than the naïve humanist paradigms are. As Hjelmslev points out, once linguistics has carried out its project of analyzing language as a semiotic system, it is forced by an inner necessity to extend its analytical procedure to what in modern systemic functional terminology would be called the situational and cultural contexts in which language is used — including, as one aspect, the institutions generating the activity-structures that constitute the various 'fields of discourse' (such as the discourse of the natural sciences):

> Accordingly, we find no non-semiotics that are not components of semiotics, and, in the final instance, no object that is not illuminated from the key position of linguistic theory. Semiotic structure is revealed as a stand from which all scientific objects may be viewed.
>
> [Hjelmslev 1961: 127]

The vulnerability of the sciences and the humanities to the 'semiotic counterattack' comes from the refusal of the other disciplines to see language as something that needs to be problematized in its own right and in its own terms. Language is invariably treated as 'unproblematic' by non-linguists, although it is the logical basis of all other forms of enquiry whatsoever. The discourses of the humanities and the sciences are simply particular ways of using language, particular functional varieties of textual process.

An adequate theory of linguistics — one which treated the notion of functional variation as a central (perhaps *the* central) fact about language — would be able to warn us in advance that the question of the machine-translatability of texts should be approached in a differentiated way. What kind of text is to be translated? Specialist? General? Literary? Translatability is a function of genre. Translation of specialist texts by machine is considered both theoretically possible and likely to be technically realized within the foreseeable future — albeit rather badly. General (i.e., non-specialist) texts appear at first sight to offer more problems, and there is a temptation to believe that machine translation should first concentrate on the 'simpler' problem of trying to translate specialist texts — which are terminologically more precise and syntactically more predictable — before attempting the 'more difficult' task of translating general texts, and then being forced to admit (perhaps) that literary translation by computer is technically, or even theoretically, 'impossible'. This temptation (which, in essentially the same form, has been identified by Ellis [1993:20] as the second of what he terms the major 'missteps' of modern linguistics) should be resisted. If machine translation systems are tested on specialist texts *before* being applied to non-specialist (or even literary) texts, progress in machine translation will continue to be disappointingly slow: the 'atypicality' of specialist texts will guarantee that a computer simulation of the process of translating them remains little more than a technical 'bag of tricks' — and no insights, or false insights, into the nature of translation per se will be gained.

The problem has a further dimension, which a register- and genre-based functional linguistics is also able to foresee. What kind of translation is aimed at? A 'functionally equivalent' translation suitable for publication? If so, it will be necessary to begin by modeling the translation of general rather than specialist texts, or else specialist translation will never be properly realized. A 'documentary' translation to be filed and never read? If so, then it might be possible to get by with a mere technical bag of tricks. Or should machine translation systems be developed solely for experimental and possible paedagogical purposes, with no thought to ever using them in 'real life'? (If so, where would the funding come from?)

5. Being guided by an overriding concern with practical paedagogical applications means running a further risk of falling between two ideological/institutional stools, i.e., of hereticism. The danger can best be brought out by posing the question: "Is translation 'means' or 'end'?". For those committed to the dual institutions of translation as a profession and as a separate undergraduate course of study at institutions of higher learning, the answer can only be an indignant "End!" — with language (and its study) as 'means'. But translation exists in other organizational forms as well. Within tertiary educational institutions it often exists as a postgraduate course of study, whose students typically come from an undergraduate background in the philologies; and at educational institutions of all kinds it exists as a component of courses designed to impart practical knowledge of one or more foreign languages — where it is clearly 'means', with testing or expanding the grasp of the language(s) involved being the 'end'. The problem for a teacher of translation into a foreign language at a tertiary-level institute of translation and interpreting is that the institutionally imposed instrumental/teleological role assignment (language as 'means', translation as 'end') is by no means as self-evident

> as it is required to be if it is to preserve its 'ideological' character — i.e., if it is to remain something which, being invisible, can never be called into question.
>
> Students continue to have great difficulty learning to translate out of their native language, and most of the difficulty is related to their imperfect command of the language they are attempting to translate into. Should they be refused admission to undergraduate translator training programmes, i.e., be told to achieve a perfect command of the foreign language first, elsewhere? In that case, translation studies is in danger of being shrunk to the dimensions of a postgraduate course of study for philologists. Or should would-be students of translation be admitted directly into undergraduate courses of study, and be helped to achieve a perfect command of the relevant foreign languages 'along the way'? If so, how? By being given simply 'more practice' (i.e., more classes in grammar, lexis, phonetics, oral communication, etc.)? In that case, university departments of translation studies must either train students in foreign languages more effectively than other university departments, or else they must surrender some of their institutional independence by agreeing to farm their undergraduate students out to the individual philologies or to a central 'language centre'; and the next logical step after the loss of institutional independence is an ideological attack on the academic status of the discipline itself. Is 'more theory' the answer? If so, what kind? If undergraduate students do their linguistics in a variety of other university departments, the result is usually the 'lowest common denominator' effect: too many theories, too many terminologies, and the only common metalanguage ends up being the traditional one — despite all its inadequacies. If undergraduate students do their linguistics internally, as an integral component of their training as translators, it is at least possible to ensure that they get precisely that kind of applied functional linguistics that can help them to acquire not just 'Sprach*kenntnisse*' but translatologically relevant 'Sprach*wissen*', even if the price is high in terms of time and intellectual effort invested. The payoff, however, is clear: classes on translation into the foreign language can begin to function as classes on *translation*, rather than as an additional or remedial foreign-language-learning exercise using translation as 'means'; and this strengthens both the institutional independence and the academic respectability of translation studies as an undergraduate discipline. But it should not be forgotten that, in order to ensure that translation becomes 'end', it is necessary to begin by refusing to 'de-problematize' language.

1.2 Origin of the study

The present study arose out of the author's work as a teacher of German–English translation at the University of Leipzig between September 1988 and March 1993. It owes it genesis to the then Head of the Department of English Translation Studies at Leipzig, Professor Albrecht Neubert, who suggested a statistical study be done to obtain more information about the recurrent grammatical errors made by students in their weekly translation exercises (to complement lexical investigations which were later to result in the publication of [Benneman et al. 1993]).

The period 1988 to 1993 spanned one of the most important political and social revolutions of the twentieth century — the collapse of state socialism in Eastern Europe — and Leipzig was one of the main centers of that revolution. The University of Leipzig therefore suffered the typical fate of a university during a revolution: it had been a closely monitored seed-bed of potential political dissent within the old society, was liable to become one of the chief sources of moral, cultural and technical leadership for the new, and was thus a locus at which the revolutionary struggle was particularly intense.

The Department of English Translation and Interpreting Studies threw itself into the revolution with the naïve energy typical of academics, and the period 1988 to 1993 saw major changes occur in the teaching of translation and interpreting at Leipzig, many of which are relevant to the shape the present study eventually assumed. Some of the historical and other factors which were instrumental in determining both the course taken by the research itself, and the form in which it was eventually possible to present the results, are outlined in Chapter 4.2 below.

During (and as part of) both the revolution of 1989/90 and the study of recurrent grammatical errors, the author began a paedagogical experiment:

All students were asked to hand in each weekly German-English translation exercise before class; the teacher then re-typed all the student translations into a word-processor and re-formated the document so that all translations of the first sentence appeared on the first page, all translations of the second were on the second page, etc.; reading each page vertically thus gave a paradigm of correct and incorrect translational variants.

The document was used to correct the exercise and plan the coming lesson, and a printout of it was given to each student at the start of the class. Formats experimented with included

1. the sentence-by-sentence collated document
    (a) with no errors indicated,
    (b) with errors indicated but not labeled,
    (c) with errors indicated and labeled, and
    (d) with errors indicated, labeled, and explained in footnotes,
2. individual student translations with varying degrees of error indication/classification and footnotes of varying length.

The factors involved in electronically storing and processing the student translations, and in identifying and electronically storing the individual translation errors, are discussed in Chapter 4 below; Chapter 7 treats the advantages and disadvantages of using the sentence-by-sentence collations of the individual student translations for teaching purposes, as well as the feasibility of other, longer-term paedagogical applications in the context of low staff/student ratios (i.e., large class sizes).

In the conceiving, designing, and carrying out of the experiment, the following factors played a determining and/or constraining role:

1. The students preferred (or at least were accustomed to) a 'deductive' rather than an 'inductive' paedagogical approach. They repeatedly asked for clear and workable 'rules of thumb' that they could apply in practice with an automatic guarantee of success. They showed little interest in 'voyages of discovery' (in which general principles were derived step by step from concrete examples) and expected a teacher-centered classroom management style. Attempts on the part of the teacher to subvert these cognitive styles and authority structures — which appeared to be evidence of a 'system- or rule-based', rather than a 'text- or discourse-based' culture — entailed a considerable risk, but were not always unsuccessful.

2. The students had a preference for the lexical rather than the grammatical perspective on individual translation problems. They wanted to know the 'correct translation equivalent' for each segment of text, rather than the principles that could guide the *search* for such 'equivalents' or the patterns of structural agnation that might function as landmarks along the way. (This appeared, by contrast with (1.) above, to be evidence that the students' culture was *not* a system- or rule-based one!)

3. The students had little sympathy for linguistic and translatological theory. Their exposure to the former had been minimal. Their dislike of grammatical theory, in particular, was intense.

4. The basic philosophical orientation of systemic functional grammar was culturally foreign to the students' intellectual world. Nevertheless, it was possible to at least encourage 'paradigmatic' thinking about language by presenting complete or partial paradigms in visual form.

5. Most of the errors made by students when translating into English appeared to be system-based lexicogrammatical errors. Errors related to failure to take into account basic translatological principles (such as changed situationality, differences between the world knowledge of the source text receivers and that of the target text receivers, etc.) were much less of a problem.

6. Before the revolution, group sizes were small (between 6 and 12 students) and the profile of each group was relatively uniform, both in terms of aptitude (all students had been subjected to a rigorous selection procedure and had undergone three semesters of intensive language training) and in terms of the combination of subjects being studied (all students were training to become interpreters *and* translators into *and* out of two foreign languages, within each group all students were working with the *same* two foreign languages, and most groups contained few or no auditors or exchange students). After the revolution, the reverse was the case. Class sizes soared (there were now between 25 and 30 students in each

group), the percentage of auditors (*Gasthörer*) and exchange students increased, the average standard of the students' language skills dropped sharply (as a result of freer admission procedures for the diploma course in translation plus the introduction of supplementary part-time certificate courses in translation for students who were also doing full-time diploma courses in teaching, journalism, science, etc.), and even the groups consisting solely of full-time diploma course students now became heterogeneous in terms of language combinations.

7. With larger class sizes and a generally poorer student command of English, an inordinate amount of translation class time was taken up with the discussion of lexicogrammatical problems. It appeared that what was needed was a kind of 'transition' between practical classes in language and practical translation classes — a new course component in which students could be taken step by step through texts that had been deliberately chosen on the basis of the lexicogrammatical difficulties they foregrounded. It seemed feasible to reuse such texts for each intake of students, thus obtaining ever larger amounts of data concerning proneness to particular kinds of errors. The idea of a 'transitional' course component, however, raised both ideological and institutional questions:

    (a) The theoretical basis of translation studies at the University of Leipzig consisted of three badly articulated parts. At the bottom was an entirely inadequate model of the language system, to which was juxtaposed (rather than 'articulated') an only partly systematized text linguistics; atop this unstable configuration rested a highly theoretical model of translation which suffered greatly from its lack of grounding in a systematized text linguistics and in an adequate model of lexicogrammar. This situation, in fact, appears to be typical of the majority of universities presently offering courses in translation studies; what is lacking is a systemic and functional approach to grammar and a systemic and functional (i.e., register-based) approach to text typology, so as to provide a more stable basis for translation theory and thus give a more organic form to the theoretical basis of translation studies as whole.

    (b) Criticizing theory and planning new course components proceeded at a sensible pace before the revolution. During the period of revolution and German reunification, the planning of new course components proceeded at a hectic pace, and there was no time for discussing theory. Nevertheless, monthly staff meetings provided a forum in which it was possible to liaise with colleagues and thus ensure a modicum of coordination in relation to course contents. In many West German university departments of translation studies, regular staff meetings — other than those devoted to emergency restructurings necessitated by government spending cuts — appear either not to take place at all, or else to be resented by staff as an infringement of their freedom, whereas in the GDR, the large amount of personal freedom and responsibility university teachers had in relation to their classes went hand in hand with the critical support, knowledge, and paedagogical experience of their colleagues.

8. The process of discussing translational variants orally in class posed the following problems:
    (a) It required students and teacher to concentrate simultaneously on the exact wording of passages of object text and on the systems of abstract relations underlying the linguistic and translatological metatext.
    (b) It required a staff/student ratio approaching 1:1 to function effectively, as the inherently 'exophoric' deixis of the oral metatext constantly required the physical proximity of the object text.
    (c) It generated texts of a highly conditioned and unusual register which the students were unlikely to encounter in real life, where translations by junior translators are usually simply 'edited' by more senior translators with little or no oral discussion.
9. The students were keen to hand in their translations for written correction.
10. The students had a strong preference for working individually rather than collectively. Although there was undoubtedly a certain amount of copying, this did not account for the marked tendency for certain errors to be made by a large number of students within the group. Not only did the students rarely discuss their translations with each other before class, they were also quite loath to discuss them with other students after class. While they appreciated being given handwritten footnotes on the errors they had made in hand-in translations, they resented being referred in these footnotes to footnote comments on other students' work. This meant that, in practice, all significant errors had to be discussed in full during the class, or that the teacher had to write out the same explanation many times over.
11. On the issue of which language to use as 'metalanguage' in discussing student errors (whether orally or in writing), the arguments appeared to be equally balanced. Using English increased students' exposure to that language, while imposing upon them the additional intellectual strain of having to follow an abstract theoretical discourse whose 'foreignness' was not just a question of the language in which it was being conducted, but of the culture which had engendered it in the first place. Using the students' native German, on the other hand, was problematic due to the lack of adequate translation equivalents for many systemic functional technical terms and the fact that the majority of German discourses on language — the discourses needed to provide the contextualization for the students' native technical terms — appeared to be firmly rooted in the 'philosophical/logical tradition' of linguistic thought and thus to be incapable of facilitating the necessary recontextualization of existing technical terms or the initial contextualization of new ones.

The considerations listed above largely determined the course of the paedagogical experiment; the experiment, in turn, provided the initial data for the present study, as well as one possible context in which the results of the study might feed back into teaching practice, thus 're-establishing connection'.

1.3 Outline

Chapter 2 discusses some of the problems that have hampered collaboration between linguistics and translation studies in the past.

Chapter 3 provides a brief outline of the linguistic theory which informs the work as a whole: M. A. K. Halliday's **systemic functional linguistics**.

Chapter 4 provides an introduction to the corpus of student translations and discusses the main problems involved in working with it.

Chapter 5 contains a trial study designed to test the methodology. The trial study is based on a subcorpus of 100 student translations of source text [48] — a short newspaper report on world population growth.

Chapter 6 discusses the problems involved in extending the methodology to further parts of the text corpus.

Chapter 7 presents some possible paedagogical and computational applications of the ideas developed in the course of the study.

Chapter 8 summarizes the main conclusions of the study.

Appendix A lists all abbreviations and conventions used in the work.

Appendix B contains statistical data relating to the corpus as a whole, as well as a printout of the subcorpus of 100 student translations of source text [48] that forms the basis for the trial study reported on in Chapter 5.

Appendix C contains additional material relating to source text [48], to which reference is made in Chapters 4, 5 and 7.

Appendix D contains additional material relating to source text [36], to which reference is made in Chapter 6.