AN INTROSPECTION-BASED ANALYSIS OF THE POST-EDITING PROCESS

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I hereby declare that none of the material contained in this thesis has been used in any other submission for any other award. Further, that the contents of this thesis are the sole work of the author except where an acknowledgement has been made for any assistance received.

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ABSTRACT

This thesis analyses the post-editing process by means of concurrent verbalisations. Four participants thought aloud while post-editing MT output produced by the METAL system. The need to investigate the post-editing process, and the usefulness of the thinking-aloud technique to do so, are outlined in Chapter 1. By comparing the post-edited texts produced by the participants with the version generated by METAL, three major categories of syntactic change effected in the post-editing process were isolated. These were active-to-passive, noun-to-verb, and inter-TU changes. The execution of these changes was subsequently traced through the thinking-aloud protocols, and this forms the basis of Chapters 2, 3 and 4. Finally, Chapter 5 presents ensuing conclusions and recommendations.

LIST OF ABBREVIATIONS

HT	Human Translation
LTM	Long Term Memory
METAL	Machine Evaluation and Translation of Natural Language
MT	Machine Translation
N	Noun
NP	Noun Phrase
P	Preposition
PP	Project Participant
PPV	Project Participant's Version
RB	Reference Book
SL	Source Language
ST	Source Text
STM	Short Term Memory
TAP	Thinking-Aloud Protocol
TL	Target Language
TU	Translation Unit
V	Verb
VP	Verb Phrase

1. INTRODUCTION

1.1   INTRODUCTORY REMARKS

Many machine translation systems depend upon human post-editing, after translation, to qualitatively upgrade their output. In spite of the integral role played by post-editing, the activity itself and the cognitive processes underlying it have remained relatively hidden behind studies of the wondrous workings of the machine itself. Comparatively little is known about post-editing and the mental processes of post-editors. I have attempted, in this thesis, to throw some light on the post-editing process, using the torch of the thinking-aloud technique, and describing the view afforded by it. The light is not always strong, sometimes flickering and then projecting no more than shadowy silhouettes, but it nonetheless illuminates a previously dark corner of cognitive activity.

Four project participants (PPs) edited a text which had been translated by the METAL MT system. They emended the MT text, striving to produce a more acceptable English-language version. I identified the most prevalent syntactic changes they made to the MT text, and subsequently traced the execution of these modifications as it was reflected in thinking-aloud protocols (TAPs) for the post-editing procedure. This forms the basis for conclusions which I have drawn about the post-editing process.

This introductory Chapter 1 continues with an outline of previous studies on the subject of post-editing — studies, most of which had as their focal point the product rather than the process. The thinking-aloud method is introduced, and some of its strengths and

inadequacies explained. Chapter 1 also looks at some of the previous language-related applications of thinking aloud and concludes with a justification of its suitability for an examination of the post-editing process.

Chapter 2 is the first of three chapters dealing with syntactic changes made to the MT. The first involves active-to-passive changes, their occurrence and frequency, and the motivation for them, as discernible from the TAPs. Similarly, Chapter 3 discusses noun-to-verb changes, also enlarging upon the subject of automaticity in post-editing. Chapter 4 examines inter-TU changes, ie. those which are relevant for standards of textuality, focusing on cohesion, coherence and intertextuality.

Finally, Chapter 5 discusses the post-editing performance of the PPs and makes some recommendations on the basis of the conclusions drawn.

1.2   POST-EDITING OF MACHINE TRANSLATION

> "The mystique of language and the thought processes that
> language involves preclude the elimination of the human
> element from any translation activity" [1].

This was the view of Ruffino, formulated as a result of his

experience with the MT system Systran at the XEROX Corporation, New

York. He concluded, in 1981, that machine translation is the "too

early weaned child", and that its future success depended upon

advances in the fields of cognitive psychology and anthropological

linguistics. Neither of these fields was, in his opinion,

sufficiently developed to provide us with information to program a

machine to translate as the human translator [2]. Mortimer Taube,

contrary to contemporary exponents of artificial intelligence,

believed that:

> "there was something special, ineffable, and exclusively human
> about translation. It's an intuitive thing...and no machine —
> no computer — will ever be capable of human behaviour" [3].

The history of MT has shown that such views have been widely held.

They have dispelled translators' fears of being ruthlessly replaced

by the dreaded "thinking machine" and have had such dramatic

consequences as the publication of the ALPAC Report in 1966. In

this, it was concluded that, because the Georgetown University MT

system "had to resort to post-editing", it was a failure:

> "We do not have useful machine translation. Further,
> there is no immediate or predictable prospect of useful
> machine translation." [4]

Whether or not one believes that developments in the discipline of

artificial intelligence could successfully produce MT systems which

were, for example, self-learning and capable of simulating human

translation, it must be acknowledged that operational and

commercially viable MT systems already exist. However, although

there are perhaps limited applications for which "raw" (ie.

neither pre- nor post-edited) machine output will gain acceptance,

human intervention in the stages immediately preceding or following

translation is, in most cases, desirable and often vital. Bar-

Hillel, in the 1950s, advocated "high quality translation by a

machine—post-editor partnership" as the most fruitful area of

future MT development [5]. In relation to Systran, Löffler-Laurian

stresses that there are some formulations for which the machine

will always fail to provide the correct or required equivalent,

and:

> "c'est pourquoi la post-édition est toujours nécessaire — et
> le sera encore longtemps —. Sauf pour une information rapide,
> ponctuelle et éphémère, la traduction brute doit être post-
> éditée" [6].

This corroborates Ruffino's remark about the necessity of the human

element in machine translation. He explained that, at XEROX, most

emphasis was placed on controlling the input through the use of a

limited vocabulary and a set of writing rules, which together

constituted Multinational Customised English. Indeed, there are

other MT systems which also operate by imposing constraints on the

lexis and/or on the syntactic structures of the input. This pre-

editing seldom obviates the need for post-editing. However, many

MT systems, and METAL is one of these, rely solely on post-editing

as a means of ensuring that the MT will meet the requirements

exacted of that translation, whether the primary consideration is

accuracy, comprehensibility or style.

> "Like any modern MT system, METAL is to be used in a
> technical translation environment where human revision of

the output is expected" [7].

As outlined by Bennett and Slocum, two simultaneous goals must be

achieved by an MT system:

> "first, the system's output must be acceptable to the post-
> editor for the purpose of revision; second the cost of the
> total effort...must be less than the current alternative for
> like material — human translation followed by post-editing" [8].

Furthermore, the quality of METAL's translations is evaluated in

accordance with the following definition of "correct":

> "noted to be unchanged for morphological, syntactic, or
> semantic reasons, with respect to the original machine
> translation, after revision by professional post-editors is
> complete" [9].

This serves to underline the integral role played by post-editing

in the production of a good-quality translation using the METAL MT

system.

Both Slocum and Löffler-Laurian reason that human translation is

generally post-edited or revised and that it is therefore normal to

expect machine translation to undergo this procedure also.

Nonetheless, there appear to be marked differences between post-

editing machine translation and revising human translation.

Bennett and Slocum refer to some post-editors' preference for MT

because they "can have more control over the result" — contrary to

sentient humans, "the machine doesn't care" how radically its

translation is modified. Therefore:

> "judgements of 'correctness' or 'acceptability' by post-
> editors is [sic] likely to be more harsh when directed toward
> MT than when directed toward human translation" [10].

Löffler-Laurian emphasises that automatic translation is not an

automatic means of producing a translation which is equivalent to

one produced by a human translator, and she draws attention to MT's

"aspect a-sémantique ou a-sémiotique" [11]. If the product of MT neither aspires to nor attains equality with that of HT (human translation), the editing of one must be intrinsically different from that of the other. This point was also stressed by Bachrach based on reports of post-editors' experience at the ASLIB "Practical Experience of Machine Translation" Conference in 1981 [12]. Grammar mistakes, for example, are not usuallly made by humans (translating into their native language), whereas solecistic formulations are not uncommon in the case of an MT system, and indeed may occur consistently and repeatedly.

When Erwin Reifler first introduced the concept of the post-editor in 1950, he defined his/her role as being:

> "to select the correct translation from the possiblities found by the computer dictionary and to rearrange the word order to suit the target language" [13].

Since then, the part played by the post-editor has frequently been described in terms of the errors occurring in the MT and warranting correction. Löffler-Laurian attempts to classify post-editing in this way and she categorises changes into:

> "modifications obligatoires...,necessaires...et les modifications qu'on estime inutiles" [14].

Obligatory modifications apply to terminology, particularly where the MT system is unable to offer a TL equivalent and the term appears in its original form in the MT. Proper nouns which have been incorrectly translated as common nouns, and fixed idiomatic expressions or lexical items also require obligatory modification. So too do morphological errors concerning number, gender etc. Necessary modifications encompass changes which must be made, but

for which a variety of solutions exist. Finally, modifications

which involve the replacement of one form with a synonymic or

paraphrastic alternative are deemed unnecessary by Löffler-Laurian.

Roy Green, Principal Translator with the Commission of the European

Communities, also endeavoured to classify MT errors with which

post-editors were confronted. His Category I comprised minor

errors. These were:

> "blatant errors, easy to identify and easy to post-edit,
> particularly since only one or two words have to be deleted
> or supplied." [15]

More specifically, these included changes necessitated by the

misuse or omission of the definite article, use of the wrong

preposition or personal pronoun, or the wrong choice of translation

when alternatives are possible. Category II covered major errors

and Green listed as examples word-for-word translations of

idiomatic expressions, errors which arose when the computer

incorrectly identified a part of speech, and the inability to

change active SL verbs into the TL passive. Errors in Category II

were therefore "just more complex versions of Category I

errors" [16].

Where errors of Categories I and II existed, post-editors had no

doubts about the defectiveness of the MT and did not experience

difficulties identifying the constituent(s) which required

emendation. In contrast, Green designated Category III errors

"Grey Areas", and these included:

> "what might be termed 'doubtful translations and near
> misses'" [17].

He observed that, paradoxically, it was the post-editing of
reasonably intelligent phrases, clauses or sentences of the MT
which caused most trouble. The post-editor was faced with deciding
whether to alter the MT and must then judge how extensive the
modifications should be and if the MT should perhaps be disregarded
and a new version produced.

Bernard Lavorel conducted a survey of post-editing work undertaken
by translators from the EC Commission's French translation section
in Luxembourg. He assigned to four categories the error types
encountered by him during his personal experience of post-editing.
Beginning with the most serious and troublesome, the categories
were as follows:

(1)   errors concerning verb forms
(2)   the mistranslation of prepositions
(3)   the mistranslation of common idioms
(4)   the consistent rendering of one lexical item by another
      whereas, in fact, use in different contexts required a
      variety of vocabulary.

He then summarised the experiences of six post-editing translators.
The most significant difficulties they encountered (again in order
of "troublesomeness") were as follows:

(1)   Lack of common terminology:

      "The machine does not use standard, well-known
      formulations. It does not use the correct expression
      for the context";

(2)   A need for extensive rewriting. This elicited resentment
      from post-editors who felt that:

      "The machine makes no effort to work out translation
      problems";

(3)   The repetitive style of the MT. Post-editors felt that
      the MT style was forcing them to adopt a style alien to
      their own and it provoked comments like:

>   "The post-editor has no freedom of style."

> (4) Miscellaneous problems. These included non-translated
>   terms, spelling mistakes and incorrect inflection of
>   nouns, adjectives and verbs. [18]

It is of significance that the first list constituted the author's

categorisation of errors having had two years of post-editing

experience. The six translators, on the other hand, post-edited

over a relatively shorter period. This accounts for the latter's

irritation when the MT's style was repetitive, or when the machine

was incapable of producing commonly-used everday lexical items.

According to Lavorel, they had not become sufficiently accustomed

to dealing with MT in such a short period of time. Moreover, their

reactions reflected the standards they would expect from human

translation and continued, erroneously, to expect from machine

translation.

With regard to repetitious style and post-editors' tolerance,

Löffler-Laurian confirms Lavorel's opinion. She comments that this

characteristic of MT, instead of exasperating the post-editor,

should please him/her, since correction is thus facilitated and

rendered more automatic or mechanic. The "réactions d'énervement"

on the part of the post-editor occur because s/he:

>   "a oublié qu'il se trouve face a une production automatique,
>   et il réagit comme s'il était face à un élève récalcitrant,
>   refusant d'apprendre la leçon ou la règle" [19].

Ian Piggott, also of the Commission of the EC, has written about

the importance of feedback from translators who post-edit machine

translation. In his study he discovered that the most irritating

phenomena for post-editors were the translation of proper nouns and

expressions, and errors of elementary style. Although not
necessarily involving an increase in post-editing time, MT errors
of this nature discouraged translators from making use of MT. He,
too, found that:

> "the more MT output a translator handles, the more proficient
> he becomes in making the best use of this new tool." [20]

As they become accustomed to processing MT, post-editors come to
recognise typical MT errors and this can facilitate the devisal of
more efficient ways of correcting these errors.

A discussion of the categorisation of specific MT lexical and
syntactic errors requiring post-editing leads to the moot question
of how extensive post-editing ought to be. Should the post-editor,
in addition to resolving obvious grammatical and lexical
incongruities, also devote time and attention to modifications of a
more optional nature, the repercussions of which are primarily
stylistic?

Much emphasis is placed on the importance, when translating, of
considering text type and function, intention of the SL writer, and
characteristics of the TL audience, and these are factors which are
also relevant when post-editing. In addition, they have a bearing
upon the extent to which post-editing is carried out. Löffler-
Laurian deems the function of the text to be essential:

> "Il convient de connaître l'usage qui doit être fait d'un
> texte pour le post-éditer de façon adéquate. C'est ce qu'on
> appelle l'adaptation. L'adaptation d'un document à sa
> fonction ou à sa finalité devrait se mesurer au degré de
> satisfaction de son utilisateur, de son lecteur-
> consommateur" [21].

She emphasises that the post-editing procedure must be adjusted to

suit the situation and intended readership. For example, a text,

destined for publication, should be post-edited differently than the

same text, were it required purely for informational value. With

regard to Systran output, but presumably of potential wider

application, two methods of post-editing are outlined. The first

of these is conventional post-editing:

> "Il s'agit d'une post-édition qui donne du texte à traduire
> la meilleure version possible, en prenant appui sur la
> traduction brute" [22].

The post-editor is to modify as much as s/he likes, with the aim of

producing a text "non seulement correct mais aussi élégant", and

resembling, as closely as possible, a version s/he would have

produced without the intermediary of the MT.

The second post-editing technique described by Löffler-Laurian is

rapid post-editing. Obviously taking less time, this method is

based on the fundamental principle of keeping close to the MT and

respecting its formulations. It aims to produce a correct and

comprehensible translation for a reader whose primary concern is

rapid receipt of information. She proposes the following general

post-editing rules:

> (1)   "Respecter au maximum la traduction brute".
>
>   It is not necessary to make of the MT a text which
>   resembles a human translation, or indeed an original
>   text, and the MT is allowed to bear a label saying
>   "translation".
>
> (2)   "Ne modifier que ce qui doit l'être imperativement".
>
>   If something is accurate and comprehensible it does not
>   require modification.
>
> (3)   "Modifier de la façon la plus simple".
>
>   Post-editors should be content to make simple changes if

these are sufficient.

(4)   "Règle des '3 I' et des '3 C'"

The aim of post-editing is to convert what is "Infidèle et/ou Incorrect et/ou Incompréhensible" in the MT into a "Conforme et Correct et Compréhensible" form. [23]

However, in relation to rapid post-editing, Wagner in 1987 stressed that there was little demand in the Commission for this type of MT output and that, in general, clients required high-quality translations, ie. those produced by full or conventional post-editing [24].

Green outlined the three major criteria for assessing MT — accuracy, intelligibility and style, where "the ideal is a high standard on all three counts" [25]. However, he admitted that this was not always realistic, and gave accuracy precedence over intelligibility, particularly when the end-users were already familiar with the subject matter. Less importance is often attached to style than to speed and accuracy. Nonetheless, Green made the interesting point that not all post-editors are willing to "produce" translations which are stylistically inferior or unsatisfactory, irrespective of the customers' indifference to the presence or absence of elegance and polish in the translation they receive. This view is validated by Hutchins who states that, on the whole, users are more content with low quality texts than translators and post-editors, and that rapid post-editing was developed "in recognition that not all users want 'purple prose' versions" [26]. Moreover, Hutchins observes that, initially, post-editors tend to be overzealous in their correction of MT texts:

"They have to learn to edit without complete
rewriting" [27].

The above remark by Hutchins alludes to one of the criteria which
should be considered by the post-editor if post-editing is to be
carried out successfully. The question of skills requirements for
the purpose of post-editing is an important one, but unanimity is
lacking in this regard.

Nirenburg, for example, claimed, as an important feature of the
post-editing approach to MT, that the post-editor is not required
to know the SL, nevertheless acknowledging that it is often
necessary to resort to the ST in order to edit a garbled MT [28].
Johnson and Whitelock described the task of post-editing as highly-
skilled:

"the post-editor needs to be an expert in:
- the subject area
- the target language
- the text type
- contrastive knowledge" [29].

Sager also expressed the belief that the editing of MT requires a
variety of skills and functions, and he highlighted the hitherto
unverified assumption that:

"editing is suitably performed by translators specially
trained for the job" [30].

Fournier, President of Lexi-Tech Inc., a Canadian integrated
machine translation and electronic publishing firm, stated at the
1989 ASLIB "Translating and the Computer 11" Conference that
candidates for editing positions at Lexi-Tech were given
psychological tests in order to determine their suitability for a
wholly automated environment [31]. Also at that conference,

Patrick Little discussed the use of METAL by Philips Kommunikations Industrie. He admitted that editing work there was not necessarily done by translators. Furthermore, upon acquisition of the MT system, Philips recruited a new team so that post-editors did not have to overcome the psychological barrier of working with machine output [32].

Piggott supplied an additional criterion to the post-editor's profile. He suggested that translators who post-edit:

> "should be provided with full documentation on the system in natural language in order that they could play an active part in its improvement" [33].

In a discussion at the above-mentioned ASLIB "Practical Experience of Machine Translation" Conference, it was stressed that post-editing constituted a separate skill from translating and that it took time to acquire this skill [34]. Since then, Wagner has tackled the notion of the ideal post-editor — should s/he be a translator, a revisor, a non-linguist, or a trained specialist? She decided that post-editors should possess the following qualifications:

> "(1)   excellent knowledge of the source language;
> (2)   perfect command of the target language (= mother tongue);
> (3)   specialised subject knowledge;
> (4)   WP expertise;
> (5)   tolerance." [35]

Wagner concluded, however, that although (1), (2) and (3) concur with qualifications required by translators and revisors, both of these can be rather intolerant of MT output. She suggested the employment of full-time post-editors, but stressed that this would only be a feasible option if organisations had better MT systems, a

small range of languages, a very narrow subject field and reduced translation standards [36].

Vasconcelles discussed the importance of word-processing skills in post-editing, with reference to SPANAM, the MT software of the Pan American Health Organisation [37]. Macros are used extensively to deal with recurrent constructions in the output, thus speeding up the post-editing process considerably. (SPANAM has, for example, a macro to change a definite article into an indefinite one, or to change "(the) N1 of (the) N2" into "N2 N1" or into the genitive "N2's N1".) She outlines what she terms "functional treatment of linguistic constructions", strongly defending the principle of changing the information structure of the MT as little as possible. This in turn means that SPANAM's post-editors must develop skills in finding solutions which leave the major pieces of information in the positions they occupied in the MT output. At SPANAM, nearly all post-editing is done by professional translators who are specially trained in post-editing techniques.

In conclusion, it would seem, firstly, that post-editing is generally classified in terms of the errors to be corrected. The classification of errors may be according to morphological, lexical, syntactic or semantic features. Alternatively, it may be based on the degree of change which the post-editor is required to make to the MT output. It should be noted here that I intend to examine the post-editing process primarily through the syntactic changes which are made the the MT text.

Secondly, although varying levels of post-editing are possible, it

is difficult for post-editing translators to produce inferior-
quality output, and the number of clients prepared to accept this
is limited. Consequently, most post-editing aims at the production
of high-quality versions. It seems that, in general, translators
are not convinced of the verity of Vasconcellos's remark that
"post-editing gets to be more relaxing, and more fun, than
translating from scratch" [38]. Yet, most post-editing is actually
done by translators and they seem to possess the chief skills
required. There is some dissention concerning the necessity of SL
competence and a linguistic background for post-editing, and this
is an issue to which I will be returning at a later stage.

It is clear that comparatively little research has been conducted
on post-editing techniques and the post-editing process.
As a result of this, the discussion of post-editing which took
place at the "Practical Experience of Machine Translation"
Conference ten years ago is still extremely relevant today. Then,
it was emphasised:

> "how little is known what post-editors actually do and what
> they contribute to the quality of finished translation" [39].

It is hoped that what follows will be a little enlightening in this
regard.

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1.3   THE THINKING-ALOUD TECHNIQUE

Introspection:

> "involves subjectively analyzing one's own thought processes,
> feelings, and sensations and extrapolating from them to the
> behavior of others" [1],

and constituted the fundamental method of psychological research in
the late 19th century. However, it lost its pre-eminence in this
sphere with the rise of behaviourism, only to be reassigned
considerable status with the emergence of cognitive science or
cognitivism.

Since psychology in the late 19th century was primarily concerned
with mental states and activities, introspection was regarded as an
important scientific method and indeed may have been used
excessively. At the beginning of this century, structuralism also
favoured introspection, the proponents believing that
introspections:

> "could be as repeatable and measurable phenomena as overt
> behaviors, provided only that they are obtained under
> sufficiently rigorously controlled conditions" [2].

However, many psychologists decided that if a discipline were to be
a science:

> "its elements should be as observable as the physicist's cloud
> chamber or the chemist's flask" [3].

This point of view signified the temporary shelving of
introspective studies, superseded by behaviourist stimulus-response
theories, ie. by theories concerned with the observable facets of
behaviour. During this period of behaviourist thinking, certain
aspects of learning and cognition were virtually ignored, due to
their prior and inevitable interrelation with introspectionism.

Language was one of these aspects and its abandonment formed the

basis of the major criticisms levied at behaviourism on the

occasion of the Hixon Symposium in 1948. Furthermore, Lashley, one

of the dominant critics, asserted that:

> "the problems raised by the organisation of language seem
> to me to be characteristic of almost all other cerebral
> activity" [4].

The need for a fresh approach was strongly felt, a need which was

subsequently fulfilled by cognitive psychology. According to

Gardner, the major accomplishment of this relatively new science

has been:

> "the clear demonstration of the validity of positing a level
> of mental representation: a set of constructs that can be
> invoked for the explanation of cognitive phenomena, ranging
> from visual perception to story comprehension" [5].

Thus, attention is focused on the:

> "internal structures and processes which represent our
> knowledge of the world and how to deal with it" [6],

and introspection is generally thought to serve a useful purpose

here, particularly since developments in methodology have enhanced

the verifiability of data.

Of course, there is controversy concerning the degree of efficacy

of introspective methods, and arguments challenging their validity

are not unfounded. Donald Norman outlines the general problems

posed by the use of introspection:

> (1) Our ability to communicate thoughts to another person is
>   quite limited;
>
> (2) Thought patterns are richer than can be conveyed in
>   words;
>
> (3) We do not really know just what operations one really has
>   access to, or to what extent one is aware of one's own
>   mental processes. [7]

Before discussing the significance of such arguments and the appropriateness of thinking aloud to examine post-editing, the distinction between various types of introspection should be made, since some are indeed less satisfactory than others.

The two forms of introspection which reflect cognitive processes most closely are concurrent and retrospective verbalisations. As the terms suggest, the former involves talking or thinking aloud in the course of executing a task:

> "where the cognitive processes, described as successive states of heeded information, are verbalized directly" [8].

The second constitutes providing a report, just after a task has been completed, relating to the information heeded during the task and subsequently retrieved, usually from long term memory (LTM). This retrieval may include an element of selection or interpretation, and may therefore not be entirely consistent with the processes involved in the task. In thinking aloud, on the other hand, the information contained in the verbalisations is extracted from short term memory (STM), and there is thus less possibility of distortion.

Ericsson and Simon specify the three main criticisms of the validity of thinking-aloud reports:

(1)   The Effect-of-Verbalisation Argument:

> "giving verbalisations concurrently with the cognitive processes, or even knowing that one is to give retrospective reports after the experiment, changes the performance and hence the cognitive processes studied";

(2)   The Incompleteness Argument:

> "the subject may fail to verbalize a considerable part of the information that passes through his STM, or that he

uses in the task he is performing";

(3)   The Epiphenomenality or Irrelevance Argument:

"the verbalisations may report an activity that occurs in
parallel with, but independent of, the actual thought
process, hence provides no reliable information about
the latter". [9]

Ericsson and Simon refute these arguments, providing manifold

proofs from a variety of introspective experiments to corroborate

their standpoint. With respect to Argument 1, they point out that,

in fact, the thinking-aloud activity is not entirely removed from

human experiences in everyday life. They also make a distinction

between verbalisations of Levels 1, 2 and 3. Level 1 involves

the "vocalization of covert articulatory or oral encodings", in

contrast to Level 2, which incorporates "description, or rather

explication of the thought content". Finally, Level 3

verbalisation "requires the subject to explain his thought

processes or thoughts" [10]. Ericsson and Simon review studies

which compare the performance of tasks, both with and without the

thinking-aloud instruction, and find that:

"the observable structure of cognitive processes is not
affected significantly by the instruction to think aloud
when the experimental conditions are consistent with the
the criteria for Level 1 or 2 verbalizations" [11].

However, when subjects are told how to verbalise, ie. when asked

to verbalise information they would not normally heed (Level 3

verbalisation), thought processes may indeed be influenced or

changed.

Argument 2 possibly constitutes the most frequent objection raised

to the veridicality, and hence reliability, of thinking-aloud

reports. By explaining the human information processing model they

have adopted, Ericsson and Simon contend that thinking-aloud

reports are based on information currently held in STM. They

stress that some processes are automatic, that the intermediate

steps of these processes are not contained in STM and that they

therefore cannot appear in the thinking-aloud protocols (TAPs).

Moreover, it is possible for information, once in STM, to remain

unreported — if an intermediate result in a sequence of processes

causes a direct execution of other processes that make full demands

on STM, then the intermediate result may not be reflected in the

verbalisations. Admitting the existence of these exceptions,

Ericsson and Simon conclude that:

> "the information that is heeded during performance of a task,
> is the information that is reportable; and the information
> that is reported is information that is heeded" [12].

The third criticism levied at thinking aloud was that these verbal

reports are epiphenomenal, ie. without direct pertinence to the

cognitive processes in operation. Again, by examining a wealth of

experimental evidence, Ericsson and Simon find this to be untrue:

> "human subjects are not schizophrenic creatures who produce a
> stream of words, parallel but irrelevant to the cognitive task
> they are performing" [13].

In fact, their evidence confirms the notion that thinking-aloud

protocols reveal what information is being heeded during the task.

This information, in turn, provides an insight into the strategies

being employed and the inferences being drawn in the course of the

task performance.

Having outlined the various forms of introspection and the most

important arguments for and against their use, I intend to

concentrate on the language-related applications of introspective
methods. These began in the late seventies and gained in magnitude
and popularity during the last decade. The focal point has been
second language research. Various studies dealt with reading,
writing, learning and communication strategies, lexical inferencing
etc., and exploited various forms of introspection. Extensive
research projects in the eighties employed thinking-aloud methods
to further knowledge in the field of second language research
through the medium of translation, while also providing valuable
insights into the hitherto neglected translation process. The
latter are of most relevance here and merit a brief outline.

Dechert and Sandrock attempted to reconstruct, with meticulous
attention to temporal measurements, Sandrock's translation into
German of a relatively unchallenging English-language text, and on
the basis of this, drew conclusions about the translation process.
With regard to the usefulness of the thinking-aloud method, Dechert
asserts that if a process is "proceduralized", ie. automatised,
it is not accessible for verbalisation, and introspection yields no
information. If this is not the case, ie. if the activity or
process is a "declarative" one:

> "verbal protocols in connection with a careful study of
> temporal variables and speech errors...may open up our view
> into the inner workings of speech production" [14].

Pamela Gerloff instructed six native speakers of English to
translate two short French-language texts into English, without the
use of reference books. Gerloff chose a translation task because
of the need, as she saw it, to examine the translation process, and
in order to:

"unravel elusive questions about the nature of the cognitive
operations that lie behind comprehension and production and
the relationships that exist between these two processes" [15].

She subsequently focused on the unit of analysis used in

translating the text, ranging from morphemic or syllabic analysis

to discourse or group level analyses. Gerloff also endeavoured to

categorise the text-processing strategies of language learners.

Hölscher and Möhle also used thinking-aloud protocols from seven

subjects translating a French-language text into their native

language, German. They analysed the planning processes occurring

during translation which, in turn, allowed them:

"insights into normally unobservable processing and, at the
same time, into the proficiency level of learners, insights
which could not have been obtained by analysing task results
and ignoring underlying procedures" [16].

Lörscher used oral translation as the basis for his experiment,

assuming that:

"this procedure reveals more aspects of the language
production process, and thus the translation process,
than would written translations" [17].

Fifteen subjects were asked to translate into their second language

and, using the text produced and the data contained in the

thinking-aloud protocols, Lörscher reconstructed strategies

underlying the translation process.

Færch and Kasper combined introspection and translation to examine

the simultaneous acquisition of two languages by one learner. They

thus observed, for example, a more comprehensive knowledge of one

language than of the other, and different degrees of activation of

explicit rules or knowledge in both languages. They could explain

their observations in terms of the teaching traditions in the native country, differences in the linguistic rule systems of the two target languages, and disparities in the exposure of the learner to the two languages [18].

Krings conducted extensive studies on the translation process proper in order to discover "was in den Köpfen von Übersetzern vorgeht" [19]. From a total of eight subjects who were native speakers of German and advanced learners of French, he asked four to translate a German text into French, and four to translate a French text into German. The thinking-aloud protocols produced in the experiment underwent considerable analysis. He paid particular attention to translation problems, as reflected in the TAPs, and developed a model of the translation process based on the translation strategies employed, where the latter are defined as:

> "potentiell bewußte Pläne eines Übersetzers zur Lösung konkreter Übersetzungsprobleme im Rahmen einer konkreten Übersetzungsaufgabe" [20].

One of his preoccupations was with translational competence, as measurable through observation of translation strategies. Although he developed a model of the psycholinguistic process of translation, his subjects, like those of the studies already mentioned, were primarily second language learners and had prior experience of translation only "as a didactic method in foreign language learning and teaching", as distinct from "translation as an intermediating function". This is the differentiation made by Börsch [21]. (I would posit a third kind of translation; namely didactically oriented translation employed in the training of translators, rather than solely as a language exercise for second

language learners.)

Königs also examined the psycholinguistic aspect of translation
into the native language using the thinking-aloud technique, and
with the assistance of language learners who possessed varying
degrees of foreign-language competence, and professional
translators. He attempted to discover:

> "was zwischen der Aufnahme des Ausgangstextes durch den
> Übersetzer und der Fertigstellung des Zieltextes — ebenfalls
> durch den Übersetzer — eigentlich passiert" [22],

and made a distinction between "Adhoc- und Rest-Block", the former
involving the activation, on the part of the translator, of an
individual, almost automatic one-to-one mental correspondence, and
the latter encompassing everything not contained in the "Adhoc-
Block". Königs made suggestions for the future of
"Übersetzungsdidaktik", recommending the promotion of both product-
oriented and process-oriented approaches to translation, and making
proposals for translator training and the role of translation in
foreign language teaching.

Hönig also conducted experiments using thinking-aloud and
retrospective methods. He was not convinced of the usefulness of
the thinking-aloud method to provide adequate information about the
translation process and advocated its use only in conjunction with
retrospective probing. He questioned the validity of some of the
studies already mentioned, carried out with the help of subjects
possessing little experience of translation. With particular
reference to Krings's "Was in den Köpfen von Übersetzern vorgeht",
Hönig asks:

> "Ist jeder, der stimuliert wird, einen Text in eine andere

Sprache zu übertragen, schon ein Übersetzer? Müssen nicht
vielmehr gewisse Einsichten in den Übersetzungsvorgang und
bestimmte Techniken des Übersetzens erlernt sein, bevor die
durch Intro- oder Retrospektion gewonnenen Daten Erkenntnisse
über die mentalen Vorgänge beim Übersetzen ermöglichen?" [23].

Some of the studies mentioned above are criticised for what Hönig

sees as the underlying assumption — in his words, "Fiktion" — that

there exists:

"'natürliches' und 'ursprüngliches' Übersetzen...,das durch
Reflektion und Anwendung von Übersetzungsstrategien weniger
'echt' wird" [24].

Unlike Krings and Königs, who examined the translation process in

order to reconstruct it in terms of translation strategies, Hönig

believes that only if subjects already have translation strategies

at their disposal, can their translation processes be accessed and

analysed.

These are the most significant studies to date where thinking-aloud

methods have been used in conjunction with translation to achieve

various aims. For this thesis, the most important conclusion to be

drawn from these is the generally recognised suitability (despite

Hönig's objections) of this method to examine the translation

process. On the basis of this, it can be concluded that the

thinking-aloud technique can also be used to analyse the post-

editing process.

Krings highlights several reasons why the thinking-aloud method is

suited to the investigation of the cognitive processes involved in

translation, and his arguments can also be applied to the mental

processes at work in post-editing. Ericsson and Simon's

categorisation of verbalisations into Levels 1, 2 and 3 has already

been mentioned. Krings claims that, because translating — and I

add, post-editing — are undeniably linguistic processes:

> "verbalisations externalize linguistically-structured information and can normally do without an additional process of verbal encoding" [25].

They therefore belong to Level 1 — the type of verbalisation which, according to Ericsson and Simon, will not change the structure and course of the task processes, ie. of the translating or post-editing processes. Krings also draws attention to the fact that the thinking-aloud technique:

> "does not demand abstraction, selection or inference processes on the part of the subjects" [26].

It must be stressed that most of those who conducted the above experiments using the thinking-aloud method accepted that not all the mental processes underlying a particular task will be manifest in the TAPs. Evidence supports Krings's affirmance that:

> "verbale Daten zwar einen Zugang zu den kognitiven Prozessen ermöglichen, keineswegs aber direkte Abbildungen dieser Prozesse sind" [27]

Those who employed the thinking-aloud technique therefore concentrated upon the information which was available to them, rather than that which was not. Secondly, some of the conclusions about the cognitive processes associated with a task inevitably involve deduction or inference based on the data supplied by the TAPs. This examination of the post-editing process was carried out in recognition of these factors, and in the firm belief that thinking aloud constituted the most useful method at my disposal for this investigation. Finally, Greene and Cromer assert that:

> "language is thought to serve an internal mediating function, allowing people to monitor and direct their thought processes and generalise them from one mode of thought to another" [28].

This point of view further corroborates the notion that thinking-aloud methods can be employed successfully to examine the previously neglected cognitive processes involved in post-editing — an activity which, although differing from translation, is nonetheless a linguistic and language-processing task.

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1.4   THE EXPERIMENT — PRACTICAL CONSIDERATIONS

Aware of the need to examine the post-editing process and convinced of the appropriateness of thinking-aloud protocols to do this, I began preparations for the experiment. It was to be based on output produced by the METAL MT system, to which I had access at the Universität Hildesheim. I first selected a text upon which to found my investigations. It was necessary to use a text type which one would realistically expect to be machine-translated in commercial applications of MT systems such as METAL. I was also concerned with using a complete, authentic, German-language text of approximately 300 words; thus short enough to be post-edited in one session, and without — I hoped — participants becoming tired or restless; and long enough for the TAPs to bring a variety of issues to the surface. In view of these considerations I chose a "Gebrauchsanweisung" for the "Braun control-sensor toaster HT 55 Type 4104" (see Appendix A). It is not unrealistic to assume that texts of this nature are often translated by machine — indeed one only has to read some of the very suspect English-language operating instructions for various imported devices, gadgets, machines, etc., to be reassured of this.

After inputting the text prior to translation, I selected the order in which METAL should access its dictionaries to find equivalents; first Common Technical Vocabulary (CTV), and second Electronic Engineering (EE). METAL produced a list of unknown terms, for which I subsequently made dictionary entries. These were:

> die Bräunung,
> der Doppelschlitz-Toaster,
> EWG,

```
funkentstört,
das Herunterdrücken,
hochschieben,
nächstniedrig,
toasten,
der Toaster,
die Oberflächentemperatur.
```

METAL also gave me a list of unknown compounds for which it offered default translation suggestions, compiled from its English-language equivalents of the individual components of the compounds. Since my preoccupation in the subsequent analysis was to be with syntax, I adopted Matthews's notion of lexical co-variance, according to which the choice of lexical item does not influence syntactic structure and is subject only to lexical collocation [1]. However, I deemed it necessary to make dictionary entries for some of these compounds, although I did not alter those terms, the MT translations of which I judged to be collocationally clumsy but perfectly comprehensible. Examples of these were:

```
Erstgebrauch      ->  primary use,
Brotsorten        ->  bread sorts,
Krümelschublade ->  crumb compartment.
```

The compounds which I entered into METAL's dictionaries are listed below, together with METAL's unacceptable default translations:

```
Brotscheibe       ->  bread disk,
Brötchenaufsatz ->  roll superstructure,
Federbügel        ->  spring coat hanger.
```

Had this not been done, the MT of Translation Unit 24, for example, would have read: "The roll superstructure has to lock with the spring coat hangers". By encasing "Braun" in brackets, I ensured that the maker's name would not be translated, thus avoiding generation of "the brown toaster".

Having completed the preliminary steps, I allowed the text to be

translated. METAL divides texts to be translated into Translation
Units (TUs), the boundaries for which are full stops, colons and
semi-colons. This text therefore comprised thirty-three TUs. I
opted to give the participants both the ST and the MT, since I felt
that this would correspond more closely to a real-life post-editing
situation, and my aim was not to examine guessing strategies on the
part of the post-editors. For this reason I used the "mix" output
of the text, ie. each TU of the source text immediately followed by
the target-language translation for that TU (see Appendix B). The
implications of this form of output will be discussed at a later
stage.

I asked four people to participate in the project (PPs — project
participants). All four were native speakers of English, but were
chosen for their varied backgrounds in translation experience and
German-language competence.

PPs I and II were female students who had completed three years of
a four-year degree course which aims to train translators. They
had taken courses in specialised translation of a rather general
nature, in the fields of economics and science/technology. They
had also studied both of these subjects, as well as linguistics and
literature, for two years, with general language classes
incorporating "Landeskunde". In addition, they had completed a
one-year course in terminology. German and French were their
foreign languages, and both had spent nine months at a German
university immediately prior to the experiment. They possessed no
professional/commercial experience of translating.

PP III was a male student of a technical translation "Diplom"-course at a German university. He had been living in Germany for twenty years (ie. since he was twelve years of age), and his command of spoken and written German was flawless. He was approaching his final exams and had studied for six years, gaining varied experience of freelance translating during that time. The course he was completing involved highly specialised technical translation, with extensive background studies in a range of technical subjects, linguistics and terminological studies, "Landeskunde", and general language classes. The languages he was studying were English and French.

PP IV was a male lecturer at a German university and had lived and worked in Germany for a number of years. He taught English language and cultural studies and had some prior experience of professional translating. His knowledge of the German language was also excellent.

The experiments were carried out separately and individually. I explained to each of the four participants what thinking aloud entailed and they all completed a short practice session of approximately ten minutes' duration, working on a text similar to the one to be used in the experiment.

In the experiments proper, participants were seated at a table, upon which was placed a microphone. I sat in a corner of the room, not facing the participants, and with the recording machine within reach, so that I could turn the cassettes when required.

The participants had dictionaries at their disposal:

Reference Book 1	■	Collins English Dictionary,
RB 2	■	Wahrig Deutsches Wörterbuch,
RB 3	■	Collins German-English English-German Dictionary,
RB 4	■	Wörterbuch der Technik Deutsch-Englisch, Verlag W. Girardet,
RB 5	■	Wörterbuch der Technik Englisch-Deutsch, Verlag W. Girardet,
RB 6	■	Roget's Thesaurus, Everyman edition,

and participants' use of these during the experiment was noted.

Before receiving the text to be post-edited, participants were presented with written instructions informing them that they were about to be given a German-language ST with an English-language MT, and that their task would be to edit the MT, using the ST and aiming to produce a good written translation, thinking aloud throughout the experiment.

They were also informed that they should refrain from communicating with me during the experiment, and they were given opportunity to ask questions before the experiment began. They were told that they were free to use the reference books provided. Participants were also made aware that no time limit would be imposed, since it was more important that they finish their post-editing of the text.

When they were ready to begin, I gave them the text and began recording. At the top of the first page of the text was the additional instruction:

> "Aim to produce a text which could be used in the instructions booklet accompanying the toaster"

Thus, if a distinction is made between translating or post-editing for publication on the one hand, and simply to convey general informational content on the other hand, the former was required in

this experiment.

When the four experiments had been completed, I transcribed the
cassettes to produce thinking-aloud protocols or TAPs (see Appendix
C). These took the form of a continuous stream or series of
words, the only punctuation being question and exclamation marks.
Mispronounced or half-uttered words and other speech errors were
reproduced as accurately as possible. Passages which were
completely unintelligible on the cassette were designated by a
question mark enclosed in round brackets, and if a particular
utterance was discernable but unclear, the utterance was preceded
by a question mark and placed in round brackets to indicate that my
interpretation may not be correct. Numbers were written in word
form, and abbreviations, when verbalised as individual letters,
were written as such. For example, when both letters "e" and "g"
were enunciated rather than verbalising "for example", this
appeared in the TAP as "E G". Participants' consultation of
reference books was also recorded with the reference book number
(ie. RB 2), the entry consulted, and page number(s) on which the
entry was located.

Unfilled pauses, ie. silent pauses, were timed in seconds and
tenths of seconds, and those longer than one second were noted in
the TAPs. Thus, 3.5 in the transcript represents a pause of three-
and-a-half seconds. Filled pauses (hm, em, aha, etc.) were
assigned functions as follows:

hm(r)	■	reflection/deliberation
hm(a)	■	agreement
hm(d)	■	disagreement
hm(am)	■	amusement

```
hm(s)    ■    surprise
hm(u)    ■    understanding
hm(n)    ■    noticing/realisation
```

Other sounds were described in parentheses, eg. (laughs), (sighs),
(yawns), etc., and when words were uttered slowly, syllable by
syllable — as often occurred when participants were verbalising
what they were simultaneously writing — they were denoted by
hyphens between the syllables (eg. temp-er-a-ture). Cassette
changes were also indicated in the TAPs.

The division of the post-editing process into three stages is
adopted from Krings's division of the translation process. The
"Hauptlauf" is the main editing phase, as distinct from the initial
reading, note-taking, etc. ("Vorlauf"), and the final phase, where
the generated text may be completed, corrected, changed, or simply
read ("Nachlauf"). Processing which takes place during the
Nachlauf is distinguished from that of the Hauptlauf when the
processing of TUs are discussed in the following chapters.

The syntactic analysis of Chapters 2, 3, and 4 was effected by
first comparing the versions produced by the participants — the
PPVs — with the MT version (see Appendix D for a typed
representation of the original PPVs). This enabled me to identify
three major categories of syntactic change carried out by the PPs —
active-to-passive, noun-to-verb, and inter-TU changes. The
execution of a change is traced through the TAPs when the change
has been made by at least two PPs, and the insights into the post-
editing process which are afforded by the TAPs are discussed.

In order to further facilitate this syntactic analysis described in

the following chapters, I assigned utterances to the following

broad categories. It was not envisaged that these categories

should constitute a complete reconstruction of all strategies and

processes involved in post-editing. They merely permitted a clear,

tabular representation of the processing of each translation unit:

RD.MT	∎	reads from machine translation
RPT.MT	∎	repeats part of machine translation already read
CONT.RD.MT	∎	continues reading from machine translation
RD.STXT	∎	reads from source text
RPT.STXT	∎	repeats part of source text already read
CONT.RD.STXT	∎	continues reading from source text
SUGG.TR.1	∎	makes first suggestion replacing/editing part of machine translation
RPT.SUGG.TR.1	∎	repeats first suggestion replacing/editing part of machine translation
CONT.SUGG.TR.1	∎	continues the suggestion already made replacing/editing part of machine translation
SUGG.TR.2, 3, etc.	∎	makes second, third, etc. suggestion replacing/editing part of machine translation
RD.RB	∎	reads from reference book
RPT.RB	∎	repeats something previously read from reference book
CONT.RD.RB	∎	continues to read from reference book
COMM.	∎	makes comment not described by any of above categories

REFERENCES

[1]   P. H. Matthews, <u>Syntax</u> (Cambridge, 1981), pp. 4-5.

[2]   Hans P. Krings, <u>Was in den Köpfen von Übersetzern vorgeht:</u>
      <u>Eine empirische Untersuchung zur Struktur des</u>
      <u>Übersetzungsprozesses an fortgeschrittenen Französischlernern</u>
      (Tübingen, 1986), pp. 178-87.

2.   *ACTIVE-TO-PASSIVE CHANGES*

2. ACTIVE-TO-PASSIVE CHANGES

The table below provides an overview of the location, frequency and occurrence of active-to-passive changes. This is followed by an analysis of the TAPs for those TUs in which two or more PPs carried out these changes.

LOCATION (TU)	FREQUENCY (NO. OF PPs)	OCCURRENCE (PPs)			
5	2			III	IV
6	1				IV
7	2	I			IV
8	1				IV
19	1	I			
24	2	I	II		
26	4	I	II	III	IV
28	1				IV
29	1	I			
31	1	I			
32	1				IV

TRANSLATION UNIT 26

ST: Das Einschalten erfolgt ebenfalls mit der Lifttaste

MT: Switching on also occurs with the lift key

Here all four PPs produced a sentence in the passive voice in their translations. The versions differ in that two PPs began their

sentence with an infinitival construction which has its semantic

origins in the nominalised "switching on". They then continued

their versions with a main passive clause, the subject of which is

the English equivalent of "Lifttaste". The structure of the

sentence is reversed in the other two versions, both of which place

the "Lifttaste" equivalent in the topic slot.

"Erfolgen", according to Pape-Müller, when used with a nominalised

form derived from a verb, constitutes a passive and has a

corresponding active sentence. She used the following example to

illustrate this point:

> "Passiv: Die Aushändigung des Ausweises erfolgt durch die
>   Polizei
> Aktiv: Die Polizei händigt den Ausweis aus" [1].

Following from this, the ST of this TU would be a passive form with

a corresponding active form: "die Lifttaste schaltet (den Toaster)

ein". However, although correct from a purely syntactic point of

view, this sentence is semantically inaccurate. It is therefore

difficult to determine whether PPs may have considered this to be

passive usage of "erfolgen". Nonetheless, the English MT is in the

active voice and the versions produced by the participants are

passive. Thus, a valid active-to-passive change has taken place.

PP I

PPV: Again to initiate this toasting process, the lift button must
      be pressed

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM	twenty-six	1.3
2.	RD.STXT	das Einschalten	1.6
3.	RD.STXT	erfolgt ebenfalls mis mit der	
		Lifttaste	- - -

4.	RD.MT	switching on also occurs with the lift key	1.9
5.	RPT.STXT	erfolgt ebenfalls mit der Lifttaste	---
6.	RPT.MT	switching on also occurs with the lift key	2.1
7.	RPT.STXT	das Einschalten	1.5
8.	RPT.MT	switching on also occurs with the lift key	1.6
9.	RPT.STXT	das Einschalten	3.6
10.	RPT.STXT	ebenfalls	4.7
11.	COMM	okay switching on for this is alright	4.9
12.	SUGG.TR.1	again switch on this process	1.6
13.	SUGG.TR.2	again	4.2
14.	CONT.SUGG.TR.2	to initiate this	2.6
15.	CONT.SUGG.TR.2	toasting process	2.3
16.	RPT.SUGG.TR.2	toasting process	2.2
17.	CONT.SUGG.TR.2	the lift key	1.5
18.	RPT.SUGG.TR.2	lift key	---
19.	SUGG.TR.3	lift button	1.3
20.	CONT.SUGG.TR.2	must be pressed	7.6

Steps 2,7 and 9 are the same as are 4,6 and 8, and Steps 15 and 16 are also identical. Gerloff deems this sort of repetition and retracing of text portions to be:

> "strategic devices used to solve particular problems comprehending the original text or producing the translation" [2].

Krings, on the other hand, asserts that repetition of the ST or of the translation produced by the participant does not indicate the presence of problems or difficulties. Instead this activity is "Teil des übersetzerischen Regelvorgehens" [3]. Similarly, this activity constitutes a normal part of the post-editing process, as indicated by the TAPs. PP I, in particular, tends to repeat both the English and German versions of a TU or parts of a TU, sometimes several times, before proceeding to formulate her own version. She does this even when no difficulties have been encountered.

In this study I have adopted most of Krings's "Problemindikatoren" [4]. His category of primary problem indicators comprises explicit

or implicit identification of a problem by the participant, the use

of reference books, and omissions in the translation produced by

the participant. The second category is a little more

controversial, and the indicators most pertinent in this analysis

of the post-editing TAPs are negative evaluations of the PPV,

unfilled pauses, and paralinguistic features.

The infinitival construction in the final version began as an

imperative in Step 12 and became infinitival in Step 14. The

semantic component beginning the MT and this PP's version may

therefore be considered the same, although the first is nominalised

and the second verbal. This choice of infinitival phrase to begin

the sentence has some relevance for the subsequent introduction of

the passive in the final step (20). There is nothing to suggest

that PP I chose to convert the active MT to a passive. On the

contrary, the use of the passive form constitutes the most logical

and syntactically acceptable method of completing this sentence.

This fact may account for its introduction which occurs without

hesitation (pause of 1.3 seconds) and in the absence of problem

indicators as outlined above. PP I made no changes to her version

of this TU in the Nachlauf phase.

PP II

PPV: The lift key can also be used to switch on the toaster

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	switching on also occurs with the lift key	5.3
2.	RPT.MT	switching on	- - -
3.	COMM.	em(r)	- - -
4.	SUGG.TR.1	you can also switch on	2.3
5.	RPT.SUGG.TR.1	you	- - -

6.	SUGG.TR.2	the lift key can also switch on the toaster	9.2
7.	SUGG.TR.3	can also be used	1.6
8.	CONT.SUGG.TR.3	to switch on	2.1
9.	CONT.SUGG.TR.3	the toaster	---

PP II has not audibly referred to the ST and has required considerably fewer steps and less time in order to edit the MT of this TU.

The progression from active to passive takes place in a very different manner here. In contrast to the case of PP I, the use of the passive has not been predetermined by the introduction of an infinitival phrase to begin the sentence. Of interest here is the fact that PP II also attempts to begin her version with the same semantic component as PP I, ie. "switching on ... occurs", corresponding to the German nominalisation "das Einschalten erfolgt". This she does in Step 4 with her first translation suggestion, an active modal, the subject of which is "you", ie. the reader. This is closely followed by another suggestion which is also active but with a different subject, namely "the lift key". Having apparently found the subject with which she wishes to begin her TU, PP II has no option but to use the passive, since the second suggestion — like the corresponding German sentence which figured briefly in the discussion of the passive nature of "erfolgen" — although grammatically acceptable, lacks semantic credibility. Therefore, after some hesitation (9.2 seconds), she finally makes her third suggestion, in the passive — one which is then adhered to during the Nachlauf phase. Thus the semantic ordering of the sentence is no longer the same as that of PP I's version or of the first translation suggested by PP II. By

choosing "the lift key" to occupy the position of topic in her
version, PP II, too, made the subsequent use of the passive almost
inevitable. It may be noted at this point that PP II exhibits a
tendency to avoid using the passive, and in many cases seems to
seek recourse to this form only if no other option is available.

PP III

PPV: The lift button is also used to switch on the toaster

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	das Einschalten erfolgt ebenfalls mit der Lifttaste	---
2.	RD.MT	switching on also occurs with the lift key	---
3.	COMM.	no I'd make a passive out of this em(r)	6.6
4.	COMM.	eh(r) no	1.4
5.	SUGG.TR.1	the lift	2.1
6.	CONT.SUGG.TR.1	key	1.0
7.	SUGG.TR.2	switch	---
8.	SUGG.TR.3	button	---
9.	RPT.SUGG.TR.1	the lift	1.1
10.	COMM.	no lift button sounds like a Fahrstuhl	1.8
11.	RPT.SUGG.TR.1	the lift	---
12.	COMM.	ah I'll have to put key just now I think I'll have to look up Taste	9.0
13.	RD.RB	Taste push-button key key press button signalling key	---
14.	COMM.	key I always think of a little piano or a something on a typewriter	1.3
15.	RPT.SUGG.TR.1	the lift	1.2
16.	RPT.SUGG.TR.1	key	---
17.	COMM.	I'm going to call it a lift button I don't care if it sounds like a Fahrstuhl	1.3
18.	RPT.SUGG.TR.1	the lift	2.4
19.	CONT.SUGG.TR.3	button is	1.9
20.	CONT.SUGG.TR.3	also	1.5
21.	CONT.SUGG.TR.3	used to switch on the toaster	7.0
22.	RPT.SUGG.TR.3	it's also used to switch on the toaster	1.4

PP III, unlike other participants, anmnounces his decision to

passivise (Step 3). He gives no further explanation as to what has

motivated his decision. He may perhaps be drawing on some

knowledge about the linguistic forms of this text type.

Alternatively he may feel that the English equivalent of

"Lifttaste" should become the subject and topic of the sentence,

and realises that this would be the effect achieved by using the

passive. His version remains unchanged in the Nachlauf.

PP IV

PPV: To start toasting the lift key should be depressed as in
       normal operation

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number twenty-six	2.2
2.	RD.STXT	das Einschalten erfolgt ebenfalls	
		mit der Lifttaste	---
3.	COMM.	oh yeh	1.6
4.	COMM.	em(r)	5.5
5.	SUGG.TR.1	the	3.5
6.	CONT.SUGG.TR.1	lift	1.7
7.	CONT.SUGG.TR.1	key	1.1
8.	COMM.	or whatever it was I said before	2.5
9.	COMM.	see if I can find that quickly what	
		I said before	7.0
10.	COMM.	so I did use lift key before hm(r)	1.1
11.	RPT.SUGG.TR.1	the lift key	2.9
12.	CONT.SUGG.TR.1	should be	1.9
13.	CONT.SUGG.TR.1	depressed	4.6
14.	RPT.SUGG.TR.1	the lift key should be depressed	8.3
15.	SUGG.TR.2	to start?	---
16.	COMM.	yes	---
17.	CONT.SUGG.TR.2	to start toasting	4.7
18.	CONT.SUGG.TR.2	the lift key should be depressed	1.6
19.	CONT.SUGG.TR.2	as in	1.6
20.	CONT.SUGG.TR.2	normal	1.7
21.	CONT.SUGG.TR.2	operation	2.5

PP IV exhibits some indecision with regard to the choice of an

English-language equivalent of "Lifttaste" but initially begins his

version of the TU with this. This choice of subject/topic

necessitates use of the passive, which is therefore introduced in

Step 12 without hesitation. No alternative verbal construction is offered, since none is both syntactically and semantically possible. Although PP IV later (ie. in Step 17) decides to place the infinitival phrase at the head of the TU and to add some additional information, presumably to make his version more comprehensible, the passive nevertheless remains.

In summary, PP III was the only participant who expressed awareness of the nature of the syntactic change he was carrying out but the TAP does not reveal why this conscious decision was made. In the cases of the other PPs, there is no evidence of deliberate use of the passive. In fact, the selection of the semantic element to be topicalised governed the further syntactic development of the TU, and hence the introduction of the passive.

Due to the fact that participants were not wholly preoccupied with the syntactic aspect of the TU but were also attempting to correct and replace lexical items in the MT, it is not possible to refer to the following temporal statistics as accurately reflecting the times taken by PPs to execute the active-passive change. However they are undoubtedly of relevance in considering the general behaviour of participants and the speed with which they process and post-edit the MT and I am therefore presenting overleaf the total pause time, the number of pauses and the average pause length for this TU.

PP	TOTAL PAUSE TIME	NO. OF PAUSES	AVERAGE PAUSE LENGTH
I	45.2 sec.	17	2.6 sec.
II	29.9 sec.	5	6.0 sec.
III	41.0 sec.	15	2.7 sec.
IV	56.0 sec.	18	3.1 sec.

Although emphasis has been given to the fact that conclusions may not be drawn on the basis of these values alone, they may constitute a source of further information when viewed and evaluated in conjunction with the content of the TAPs. It can be seen, for example, that PP II's average pause length is twice that of the other participants and this may be an indication of the uncertainty which was displayed only by PP II in the search for a suitable verbal construction. PPs III and IV were confronted with other difficulties in this TU, namely finding a lexical equivalent for "Lifttaste", and in spite of this, their TAPs display relatively short pause lengths.

TRANSLATION UNIT 5

    ST: Der Braun Toaster läßt sich nur bei eingerasteter
           Krümelschublade betreiben

    MT: The Braun toaster lets only operate in the case of
           locked crumb compartment

The ST of this TU is, according to Pape-Müller, a "recessive" passive, usually used in German to designate characteristics rather than actions. She defines these forms as:

"grammatische Passivprädikate, bei denen die konvertierte
aktivische Nominativergänzung nicht ausgedrückt werden
kann" [5].

(The corresponding active sentence for this TU would be "man kann
den Toaster nur bei eingerasteter Krümelschublade betreiben.) The
passivity of this TU is however not recognised by METAL, and the MT
is therefore an active-voice ungrammatical sentence. Two PPs chose
to convert this into a sentence in the active voice and the
translations produced by the other two PPs are passive. It may be
useful to examine the TAPs of all four PPs for this TU in order to
ascertain if possible, why one or other alternative was selected.
PPs III and IV opted for passive, PPs I and II for active forms.

PP III

PPV: The Braun toaster can only be operated when the crumb
compartment is locked

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	five	1.2
2.	RD.STXT	der Braun Toaster läßt sich nur	
		eingerasteter Krümelschublade?	2.1
3.	RD.MT	Braun to lets only operate	---
4.	COMM.	ahah(n) that's eh(r)	2.0
5.	CONT.COMM	German grammar they've got in here	1.3
6.	SUGG.TR.1	Braun	3.1
7.	CONT.SUGG.TR.1	toaster	1.4
8.	CONT.SUGG.TR.1	can only be operated	---
9.	COMM.	of course it would have to be	2.9
10.	RPT.SUGG.TR.1	Braun toaster	1.5
11.	RPT.SUGG.TR.1	can only be operated	3.3
12.	COMM.	and	---
13.	RD.MT	in the case of	---
14.	COMM.	ahah(n)! that was the problem with	
		the bei which you can't usually do	
		very well in English literally anyway	---
15.	RPT.SUGG.TR.1	the Braun operating	---
16.	COMM.	eh(r)	---
17.	RPT.SUGG.TR.1	toaster can only be operated	1.0
18.	COMM.	I would just say when the crumb	
		compartment if that's what you want	
		to call it	1.0
19.	COMM.	crumb drawer would sound too stupid	---

20.	CONT.SUGG.TR.1	when the crumb compartment is	---
21.	COMM.	well	---
22.	CONT.SUGG.TR.1	locked	---
23.	COMM.	for eingerastet	1.5
24.	COMM.	yeh that would be okay	3.3

PP III shows from Steps 4 and 5 that he is aware that the English version is a literal rendering of the German. Steps 8 and 9, the suggested passive and comment ("of course it would have to be"), together with the lack of deliberation indicate an awareness on the part of PP III of the passive nature of "sich betreiben lassen" and its correspondence to a modal passive construction in English. This is the only verbal construction suggested here and does not undergo change in the final correction phase.

PP IV

PPV: The toaster can only be operated after the crumb compartment has been closed

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM	number five	1.3
2.	RD.STXT	bei eingerasteter Krümelschublade betreiben	---
3.	RD.MT	the Braun toaster	---
4.	COMM	oh God!	---
5.	CONT.RD.MT	lets only operate in the case of locked crumb compartment	---
6.	COMM.	so this has obviously got to be changed	2.5
7.	COMM.	em(r)	1.4
8.	SUGG.TR.1	the toaster	1.1
9.	COMM.	I've left out Braun because I always think that this is extraneous anyway re keeping repeating the maker's name	---
10.	CONT.SUGG.TR.1	the toaster can only be	3.2
11.	CONT.SUGG.TR.1	operated	---
12.	COMM.	instead of lets	2.4
13.	COMM.	em(r)	5.1
14.	CONT.SUGG.TR.1	after	2.0
15.	CONT.SUGG.TR.1	the	1.7
16.	CONT.SUGG.TR.1	crumb	2.3
17.	COMM.	em(r) well	1.1
18.	CONT.SUGG.TR.	compartment	2.3

19.	COMM.	I suppose that's alright it's a bit unusual but on the other hand it depends what it's like and I haven't got a picture of the damned thing so I don't know really whether it is a compartment or a drawer	2.3
20.	RPT.SUGG.TR.1	the Braun toaster can only be operated after the crumb compartment	1.4
21.	COMM.	em(r)	1.0
22.	RPT.SUGG.TR.1	after the crumb compartment	1.6
23.	CONT.SUGG.TR.1	has	1.0
24.	CONT.SUGG.TR.1	been	1.3
25.	CONT.SUGG.TR.1	closed	---
26.	COMM.	I prefer to locked locked is a bit sort of exaggerated	1.2

PP IV proceeds in a similar manner to PP III. The ungrammaticality of the MT elicits the exclamation of Step 4 and the comment in Step 6. Steps 10 and 11 see the introduction of the passive which the participant proposes to replace "lets" (Step 12), thus opting to keep the passive of the ST in his version. Again this may reflect an awareness of the correspondence of the "sich + infinitive + lassen" construction with an English modal passive construction.

PP I

PPV: The Braun toaster only operates when the crumb compartment is locked

STEP	CATEGORY	UTTERANCE	PAUSE

Hauptlauf

1.	RD.STXT	der Braun Toaster läßt sich ein	1.1
2.	RD.STXT	eingerast Krümelschublade betreiben	1.5
3.	RD.MT	lets only operate in the case of locked crumb compartment	---
4.	RPT.MT	lets only operate	---
5.	COMM.	that's wrong	20.3
6.	COMM.	puh!	---
7.	RPT.STXT	der Braun läßt sich	---
8.	RPT.MT	the Braun toaster lets only operate in the case of locked crumb compartment	---
9.	COMM.	God!	1.0
10.	SUGG.TR.1	the Braun toaster	---

11.	RPT.STXT	läßt sich	2.7
12.	CONT.SUGG.TR.1	only operates	---
13.	RPT.STXT	nur bei eingerasteter Krümelschublade	4.6
14.	RPT.SUGG.TR.1	Braun toaster	6.9
15.	RPT.SUGG.TR.1	only operates	3.0
16.	RPT.MT	in the case of locked crumb compartment	---
17.	COMM.	hmhm(r)	10.0
18.	RPT.STXT	eingerasteter	47.3
19.	RPT.STXT	eingerasteter	---
20.	RD.RB	einrasten	1.5
21.	RD.RB	to engage	1.7
22.	RPT.MT	lets only operate in the case of locked crumb	4.4
23.	SUGG.TR.2	the Braun toaster operates only	2.5
24.	RPT.MT	in the case	2.3
25.	RPT.STXT	eingerasteter	7.2
26.	COMM.	hmhm(r)	5.2
27.	RPT.MT	the Braun toaster	7.8
28.	RPT.MT	locked	8.4
29.	RPT.STXT	Krümelschublade	13.8
30.	COMM.	hm(r) come back to it	---

Nachlauf

1.	COMM.	five	---
2.	RD.MT	the Braun toaster	1.9
3.	RD.STXT	der Braun Toaster läßt sich nur bei eingerast betreiben	---
4.	RD.MT	the Braun toaster lets only operate in the case of locked crumb compartment	1.7
5.	RPT.SUGG.TR.1	the Braun toaster only operates	7.3
6.	RPT.STXT	bei eingerasteter Krümelschublade	1.7
7.	RPT.SUGG.TR.1	the Braun toaster only operates	6.2
8.	RPT.SUGG.TR.1	Braun toaster only operates	8.5
9.	CONT.SUGG.TR.1	when	2.0
10.	CONT.SUGG.TR.1	the crumb compartment	9.4
11.	CONT.SUGG.TR.1	is locked	1.9
12.	RPT.SUGG.TR.1	the Braun toaster only operates when the crumb compartment is locked	5.9
13.	COMM.	hm(r)	6.3
14.	RPT.SUGG.TR.1	operates when the crumb compartment	
15.	COMM.	hm(a)	1.4
16.	SUGG.TR.2	is fixed	---
17.	COMM.	no	4.3
18.	COMM.	fixed wouldn't be good there	---
19.	RPT.SUGG.TR.1	is	5.5
20.	RPT.SUGG.TR.1	Braun toaster only operates when the crumb compartment is	9.9
21.	RPT.SUGG.TR.1	Braun toaster only operates when the crumb com	6.2
22.	COMM.	maybe it is locked I can't think of anything else	2.4

In Steps 3 and 4 PP I reads the MT and in Step 5 deems "lets only operate" to be incorrect. The long pause after Step 5 and the exclamations of Steps 6 and 9 may be indicative of comprehension difficulties. After short deliberation an active verbal construction is introduced in Step 12. The longer pause (6.9 seconds) preceding repetition of "only operates" in Step 15 may correspond to uncertainty about her translation. However, apart from a slight variation of "operates only" in Step 23 which subsequently disappears, PP I does not change this version, despite a further 22 steps dealing with this TU in the Nachlauf. Here the nominalised "bei eingerasteter Krümelschublade" proves to be rather problematic and is discussed in the following chapter dealing with noun-to-verb changes.

PP II

PPV: The Braun toaster only works when the crumb compartment is
      locked

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	der Braun To Braun Toaster läßt sich	1.5
2.	RD.MT	the Braun toaster lets only operate in the case of locked	1.2
3.	RD.MT	crumb compartment?	2.7
4.	COMM.	hm(r) doesn't make sense direct translation from the German?	2.3
5.	COMM.	you don't need the lets	- - -
6.	SUGG.TR.1	the Braun toaster	9.7
7.	CONT.SUGG.TR.1	the Braun toaster operates	1.6
8.	RPT.STXT	bei eingerasteter Krümelschublade	6.0
9.	SUGG.TR.2	the Braun toaster only works when	2.0
10.	RPT.MT	in the case of locked crumb compartment	- - -
11.	CONT.SUGG.TR.2	when the crumb compartment is locked?	- - -
12.	RPT.STXT	eingerasteter	13.2
13.	RPT.SUGG.TR.2	when the	2.5

14.	COMM.	oops!	14.6
15.	RPT.SUGG.TR.2	is locked	5.2
16.	COMM.	oops!	11.2
17.	RPT.SUGG.TR.2	crumb compartment is locked	1.5
18.	COMM.	just look up einrasten	18.6
19.	COMM.	hm(r)	1.8
20.	RD.RB	to engage	5.1
21.	COMM.	em(r)	3.5
22.	RPT.STXT	bei eingerasteter Krümelschublade	---
23.	SUGG.TR.3	engaged	---
24.	RPT.SUGG.TR.2	locked	2.4

PP II in Step 4 also acknowledges the ungrammaticality of the MT. However, in contrast to PP IV who introduced a version "instead of lets", thus presumably recognising the origin and significance of the "lets", PP II decides "you don't need the lets" (Step 5) and consequently discards it. This move, combined with the pause before Step 7 (9.7 seconds) would suggest a lack of understanding of the recessive passive construction in the ST. In spite of this, PP II appears to infer the overall meaning of the TU and, although perhaps not producing a stylistically high-quality version, succeeds in rendering this overall meaning accurately. Her suggestion of Step 7 is an active version. In Step 9 the verb "work" is substituted for "operate".

PP	TOTAL PAUSE TIME	NO. OF PAUSES	AVERAGE PAUSE LENGTH
I	234.7 sec.	37	6.3 sec.
	(153.2 Hauptlauf)	(20)	(7.7)
	(81.5 Nachlauf)	(17)	(4.8)
II	104.5 sec.	19	5.5 sec.
III	25.6 sec.	13	2.0 sec.
IV	33.9 sec.	18	1.9 sec.

Due to the fact that "bei eingerasteter Krümelschublade" (in the
case of locked crumb compartment) was slightly problematic in this
TU, the time factors may not correspond directly to the presence or
absence of problems in post-editing the MT of "läßt sich
betreiben". Nevertheless, there is a remarkable disparity in the
total pause times of PPs I and II and those of PPs III and IV.
This, in my opinion mirrors to some extent a lack of comprehension
or recognition of the German "reflexive infinitive + lassen" form,
on the part of PPs I and II, and the resulting related inability to
to convert this to what may be considered its counterpart or
corresponding construction in English, ie. a modal passive.

TRANSLATION UNIT 7

    ST: Sie können alle Brotsorten toasten
    MT: You can toast all bread sorts

This is a TU which is in the active voice in both the ST and the
MT. Moreover, the MT may be considered syntactically correct (the
rendering of "Brotsorten" being a purely lexical issue). In spite
of the syntactic correctness of "you can toast all...", two PPs (I
and IV) chose to use the passive in their translations whereas the
other two PPs (II and III) seemed satisfied with the active
formulation.

PP I

PPV: All types of bread may be toasted

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	okay number seven	2.3
2.	RD.STXT	Sie können alle	---

3.	COMM.	hm(r)	---
4.	RD.MT	you can toast all bread sorts	1.1
5.	RPT.STXT	Sie können alle	5.1
6.	SUGG.TR.1	all types of bread may be toasted	10.5

PP I deals with this TU quite quickly (as indeed do all of the
PPs). Her initial and primary concern may be seen to be the
translation of "Brotsorten" and this is probably the reason for the
pause of 5.1 seconds before Step 6. She reformulates the TU (Step
6), placing "all types of bread" in the topic position and using
the passive. This may constitute a natural progression from the
concentration of efforts on finding an English equivalent of this
lexical item, for which METAL has offered an unacceptable
translation. PP I neither repeats nor calls into question the
quality of her version, but continues with the next TU. No changes
were made in the Nachlauf phase.

PP IV

PPV: All sorts of bread can be toasted in this model

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	right number seven	---
2.	RD.STXT	Sie können alle Brotsorten toasten	---
3.	RD.MT	you can toast all bread sorts	---
4.	COMM.	so	1.7
5.	COMM.	em(r) probably it would be the other way round in English	1.3
6.	SUGG.TR.1	all sorts	1.2
7.	CONT.SUGG.TR.1	of bread	2.4
8.	CONT.SUGG.TR.1	can	1.8
9.	CONT.SUGG.TR.1	be	1.8
10.	COMM.	em(r)	---
11.	CONT.SUGG.TR.1	toasted	2.3
12.	CONT.SUGG.TR.1	in this model	2.3

PP IV, in contrast to PP I, clarifies his choice of the passive
version in Step 5: "probably it would be the other way round in

English". This comment illustrates that his choice here was not
prompted by a "passive-in preference-to-active" motive but rather
by some, possibly unconscious, awareness of thematic structure and
text type.

Beedham insists that the passive is not motivated by a rule of
topicalisation which makes the object of an active sentence topic
by bringing it to the front of the sentence and turning it into a
grammatical subject [6]. He quotes statistical studies by
Schoenthal and Uhlírová to illustrate the tautologous nature of the
supposition that subjectivisation is equivalent to topicalisation
[7]. In Schoenthal's selected corpus, one third of the subjects of
passive sentences were non-thematic and in Uhlírová's case only 50%
of the subjects were topics. However, Stein maintains that:

> "the passive is an information focus switching device in
> English" [8].

Quirk et al. state that one of the passive's communicative values
in English is to promote textual cohesion. By keeping the thematic
elements of consecutive sentences in a text as identical as
possible, tighter textual cohesion may be achieved. The passive
permits this while keeping the case relations of nouns/noun phrases
intact [9]. The relevance of syntactic changes for the textual
features of cohesion and coherence, and the PPs' awareness of text
type (or indeed lack of this) will be discussed in Chapter 4.

Despite the controversy surrounding the notion of passive usage
being motivated by topicalisation, it cannot be denied that PP IV
has chosen the passive in this TU, not for its own sake, ie. as an
alternative to an active-voice sentence, but because he wished to

change the ordering of elements in the sentence. In this way he

brought the English equivalent of "Brotsorten" to the beginning so

that this then became the apparent subject or "pseudosubject" of

the sentence and, arguably, the topic.

PP II

PPV: You can toast all types of bread

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	you can toast all bread sorts	3.5
2.	RPT.MT	all bread sorts?	---
3.	SUGG.TR.1	all types of bread	11.8

PP III

PPV: You can toast all kinds of bread

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number seven	---
2.	RD.STXT	Sie künnen alle Brotsorten toasten	---
3.	RD.MT	you can toast all bread sorts	---
4.	COMM.	haha(am)	1.2
5.	SUGG.TR.1	you can toast	1.2
6.	COMM.	eh(r)	2.7
7.	COMM.	I think we'd just say	---
8.	CONT.SUGG.TR.1	all types of bread	---
9.	COMM.	or	---
10.	SUGG.TR.2	all kinds of bread	6.8

PPs II and III did not consider changing either constituent

ordering or voice in their versions, completing their post-editing

of the TU in three and ten steps respectively. It could be posited

that PP II was unlikely to change a syntactically and sematically

correct active sentence into a passive one when she apparently has

personal preference for active forms. PP III suggests two possible

translations for "Brotsorten" but exhibits no doubts as to the

acceptability of the active formulation of the MT.

The marked difference below in the figures for PP IV and those for the other PPs occurs as a result of differences in text-processing techniques. PPs I, II and III (PP III possibly to a lesser extent) formulated their versions before proceeding to write them down, whereas the verbalisation and writing of PP IV's final version took place concurrently, hence the large number of short pauses.

The temporal variables for this TU are as follows:

PP	TOTAL PAUSE TIME	NO. OF PAUSES	AVERAGE PAUSE LENGTH
I	19.0 sec.	4	4.7 sec.
II	15.3 sec.	2	7.6 sec.
III	11.9 sec.	4	3.0 sec.
IV	14.8 sec.	8	1.8 sec.

TRANSLATION UNIT 24

ST: Der Brötchenaufsatz muß mit den Federbügeln einrasten

MT: The grid for rolls has to lock with the spring clamps

This, like TU 7, is active in both the ST and the MT, and once again two PPs (this time I and II) used the passive in their translations, whereas III and IV adopted the active construction used in the MT.

PP I

PPV: The grid for rolls has to be connected with the spring clamps

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty-four	2.0

2.	RD.STXT	der Brötch der Brötchenaufsatz muß mit den Federbügeln einrasten	1.3
3.	RD.MT	the grid for rolls has to lock up	1.3
4.	RD.MT	has to lock with the spring clamps	2.7
5.	COMM.	oh dear	7.4
6.	RPT.STXT	der Brötchenaufsatz	1.0
7.	COMM.	aufsetzen	1.7
8.	RPT.STXT	muß mit den Federbügeln einrasten	3.6
9.	COMM.	einrasten is to engage isn't that what I said?	7.2
10.	RPT.STXT	der Brötchenaufsatz muß mit den Federbügeln einrasten	9.6
11.	RPT.MT	the grid for rolls has to lock	1.1
12.	RPT.MT	with the spring clamps	3.8
13.	COMM.	Aufsatz	2.2
14.	RPT.MT	spring clamps?	11.6
15.	RPT.STXT	Brötchenaufsatz	27.3
16.	COMM.	let's see	---
17.	RD.RB	composition	1.5
18.	CONT.RD.RB	top or upper part attachment	11.4
19.	COMM.	hm(r)	---
20.	RPT.STXT	der Brötchenaufsatz	3.4
21.	RPT.RD.RB	(? composition)	1.9
22.	RPT.STXT	einrasten	2.1
23.	RPT.STXT	Federbügeln	---
24.	RPT.MT	the spring clamps	22.8
25.	RD.RB	feather quill	1.9
26.	CONT.RD.RB	quill spring	3.9
27.	COMM.	Bügel	17.3
28.	RD.RB	Bügel	3.1
29.	RD.RB	coat-hanger stirrup	1.5
30.	CONT.RD.RB	bow collector	3.2
31.	CONT.RD.RB	clamp	2.1
32.	COMM.	hm(r) isn't much help to me	3.8
33.	RPT.MT	the grid for rolls	2.8
34.	COMM.	(sighs)	2.8
35.	RPT.STXT	einrasten	2.6
36.	COMM.	(sighs) oh I don't know what they	2.8
37.	RPT.MT	the grid for rolls	5.3
38.	RPT.MT	the grid	2.6
39.	SUGG.TR.1	the section of the toaster	1.8
40.	SUGG.TR.2	the grid	2.5
41.	CONT.SUGG.TR.2	grid for rolls	1.3
42.	CONT.SUGG.TR.2	has to lock	---
43.	SUGG.TR.3	has to be connected with the spring clamps	2.3
44.	COMM.	(sighs)	2.0
45.	RPT.MT	grid rolls	---
46.	COMM.	I don't know what this means rolls are r o l l s yes bread rolls	---
47.	SUGG.TR.4	bread rolls	4.2
48.	CONT.SUGG.TR.4	has to be connected	6.9
49.	CONT.SUGG.TR.4	with the spring	1.8
50.	CONT.SUGG.TR.4	clamps	3.1

The processing of this TU by PP I is rather long, comprising 50 steps including two reference-book consultations and much deliberation about English equivalents for Brötchenaufsatz and Federbügeln. In Step 43, the passive "has to be connected with" immediately follows the active MT version and is not changed. The use of the passive seems to occur here as a result of the introduction by PP I of a lexical item to replace "lock". Her choice is "connect" which is more likely to be used passively than actively, particularly in conjunction with the auxiliary modal.

PP II

PPV: The grid for rolls must be locked with the spring clamps

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	the grid for rolls has to lock with the spring clamps	2.6
2.	COMM.	(yawns)	3.5
3.	RD.STXT	der Brötchenaufsatz muß mit den Federbügeln einrasten	6.9
4.	RPT.MT	the grid for rolls	4.1
5.	RPT.STXT	muß mit den Federbügeln?	3.3
6.	RPT.MT	spring clamps	2.6
7.	RPT.STXT	Brötchenaufsatz	9.8
8.	RPT.STXT	Brötchenaufsatz	---
9.	RPT.MT	grid for rolls	14.5
10.	COMM.	or	---
11.	SUGG.TR.1	must	---
12.	RPT.MT	has to lock	---
13.	SUGG.TR.2	must be locked with the spring clamps	12.9

Cassette change

			7.3
14.	COMM.	I suppose Federbügeln is right	1.0
15.	RPT.MT	spring clamps	1.2
16.	COMM.	a technical word	6.2
17.	RD.RB	Aufsatz	32.1
18.	RPT.RD.RB	Aufsatz was bit on top	1.9
19.	COMM.	this must be an extra part	---
20.	RPT.SUGG.TR.2	the grid must be locked	1.2
21.	CONT.SUGG.TR.2	with the spring clamps	2.2

PP II introduces the passive in Step 13, also immediately following the active MT version, but using a different auxiliary verb. The use of "must" instead of "has to" may have prompted the introduction of the passive.

PP III, in 20 steps, substitutes "must snap" and then "must snap shut" for "has to lock" but at no time suggests a passive version. PP IV (34 steps) chose to omit the modal verb and instead used "locks into place". These choices would seem to indicate that the use of active or passive in this TU was very much dependent on the verb selected to render "einrasten". It may also be noted that, unlike the situation in previous TUs, the introduction of the passive in the English version of this TU in no way influences the overall syntactic structure of the TU and has no bearing on topicalisation. In this TU, active and passive are almost interchangeable and selection of one or other form is apparently based on personal preference or collocation of a syntactic structure with a particular lexical item.

CONCLUSION

Having traced the active-to-passive changes in the TAPs and drawn conclusions about the motivation which prompted these changes, several observations may be made. It has become quite clear that in many cases the passive was not chosen as an alternative to the active voice. In fact, it can be said that often the passive was used but not chosen at all. Its use was influenced by sentence structure, ordering of clauses and choice of subject/topic. In

those cases where the passive was selected as an alternative to active, subjective preference or knowledge of syntactic norms of this particular text type seem to have formed the basis for this selection.

It may also be noted that in those TUs in which only one PP made an active to passive change this PP was either PP I or PP IV. This corroborates the notion, already posited, that certain syntactic changes are made purely on the basis of personal preference and the judging of these syntactic forms to be stylistically superior.

REFERENCES

[1] Sabine Pape-Müller, <u>Textfunktionen des Passivs:</u>
     <u>Untersuchungen zur grammatisch-lexikalischen Passivformen</u>
     (Tübingen, 1980), p. 40.

[2] Pamela Gerloff, Identifying the Unit of Analysis in
     Translation: Some Uses of Think-Aloud Protocol Data", in
     <u>Introspection in Second Language Research</u>, edited by Claus
     Færch and Gabriele Kasper (Clevedon and Philadelphia, 1987),
     pp. 135-58 (p. 148).

[3] Hans P. Krings, <u>Was in den Köpfen von Übersetzern vorgeht:</u>
     <u>Eine empirische Untersuchung zur Struktur des</u>
     <u>Übersetzungsprozesses an fortgeschrittenen Französischlernern</u>
     (Tübingen, 1986), p. 79.

[4] Krings, op. cit., pp. 120-43.

[5] Pape-Müller, op. cit., p. 43.

[6] Christopher Beedham, <u>The Passive Aspect in English, German and</u>
     <u>Russian</u> (Tübingen, 1982), p. 35.

[7] Beedham, op. cit., p. 36.

[8] Gabriele Stein, <u>Studies in the Function of the Passive</u>
     (Tübingen, 1979), p. 133.

[9] Randolph Quirk et al., <u>A Comprehensive Grammar of the English</u>
     <u>Language</u> (London and New York, 1985), pp. 1500-1.

3. NOUN-TO-VERB CHANGES

3.   NOUN-TO-VERB CHANGES

> "Ganze Satzinhalte können durch Substantive wiedergegeben
> werden. Durch Anwendung von Substantiven wird oft ein
> verwickelter Satzbau vermieden und eine Verdichtung der
> Aussage erreicht...Heute besteht verbreitet eine allgemeine
> Neigung, sich substantivisch auszudrücken" [1].

This statement by Jung incorporates just one of the motives for the
use of nouns and nominalisation in German, and it may be a relevant
one when considering the role this syntactic feature plays in the
text under scrutiny here. Whatever the motivation, such use of
nouns or nominalisation, although widespread in German, cannot
always succeed in English.

The table overleaf provides an overview of the location, frequency
and occurrence of syntactic changes involving the conversion of a
nominal construction, ie. a noun, noun phrase or prepositional
phrase (P + NP) in the MT to a verbal form in the participants'
post-edited versions. This is followed by an analysis of the TAPs
for those TUs in which two or more PPs effected such a change.

LOCATION (TU)	FREQUENCY (NO. OF PPs)	OCCURRENCE (PPs)			
5	4	I	II	III	IV
6(i)	3	I	II	III	
6(ii)	2	I	II		
6(iii)	2	I	II		
6(iv)	1				IV
9(i)	4	I	II	III	IV
9(ii)	1		II		
10	4	I	II	III	IV
15(i)	4	I	II	III	IV
15(ii)	1		II		
16	4	I	II	III	IV
18	2	I			IV
20	3	I		III	IV
25	4	I	II	III	IV
26	4	I	II	III	IV
28	4	I	II	III	IV
29	3	I	II	III	

According to Greenwood, the largest category of noun-to-verb shifts in German — English translation involve German structures of the pattern "preposition + noun" or "preposition + article + noun" [2]. Friederich, too, describes these structures as "kennzeichnend für das Deutsche" [3]. Greenwood's corpus, the analysis of which enabled him to arrive at this and other conclusions, consisted of international agreements and EC directives. However, these

structures are equally abundant in the instructions text type. In this analysis, prepositional noun phrases also comprise the largest category of nominal forms which became verbal in the post-editing process. In fact, 16 of the 17 instances of noun-to-verb changes in the table above involved "preposition + noun" structures.

These prepositional noun phrases, although occurring in English, are considerably more prevalent in German. Friederich, in "Technik des Übersetzens", alludes to this stylistic feature and states that participles, gerunds, infinitives and subordinate clauses are often to be found in English where prepositional phrases are used in German [4]. METAL's ability to recognise variance in the roles which certain syntactic features play in different languages is unavoidably limited. As a result of this, the English MT it produces reflects, sometimes to an unacceptable extent, the syntactic features of the source language, German. Therefore, prepositional phrases in the ST invariably become prepositional phrases in the MT, irrespective of the ensuing clumsiness or indeed ungrammaticality of the MT. In many cases, these structures have undergone changes in the post-editing done by the participants, and have indeed been converted to the corresponding English structures suggested by Friederich. These changes merit inclusion in this section because prepositional phrases comprise prepositions and nouns/noun phrases and are thus nominal constructions, and their corresponding forms in the PPVs, namely participles, gerunds, infinitives and subordinate clauses, are verbal.

I intend to begin by discussing the TUs in which prepositional

phrases figure in the MT and have been modified by the PPs to form

verbal constructions. I have categorised these according to the

prepositions occurring in the German ST ("bei", "vor", "durch",

"für" and "ohne"). These are then followed by the TU (26) in which

a noun, occurring without prepositions, has been converted to a

verbal form.

"BEI + NOUN PHRASE"

METAL's rendering of "bei + NP" is seldom successful. "In the case

of + NP"/"when + NP" replace "bei + NP", when the NP consists of

"adjective + N" or "article + N". On one occasion, "bei + N" is

rendered by "during + N". Snell comments in "German — English

Prose Translation" that "there is no standard English equivalent

for this preposition at all" [5]. It occurs in a total of nine ST

TUs, and in seven instances two or more participants decided to

change the ensuing MT nominal construction into a verbal one.

These are outlined below.

    (i)   TRANSLATION UNIT 5

      ST: Der Braun Toaster läßt sich nur bei eingerasteter
           Krümelschublade betreiben

      MT: The Braun toaster lets only operate in the case of
           locked crumb compartment

PP I

PPV: The Braun toaster only operates when the crumb compartment is
      locked

PP II

PPV: The Braun toaster only works when the crumb compartment is
      locked

PP III

PPV: The Braun toaster can only be operated when the crumb
     compartment is locked

PP IV

PPV: The toaster can only be operated after the crumb compartment
      has been closed

In this TU, all four PPs effected a noun-to-verb change. PP I
(page 78) has considerable difficulty post-editing this TU,
grappling first with the "lets only operate" ("läßt
sich...betreiben") construction discussed in the preceding chapter.
Having found a solution for this syntactic problem, she is then
confronted with a lexical one, namely, how to translate
"eingerastet". After 30 steps, PP I decides to temporarily abandon
this TU and returns to it in the Nachlauf phase. In Step 9(N) she
introduces a "when..." subordinate clause and continues to search
for an English equivalent of "einrasten".

It is difficult to ascertain whether the hesitation and uncertainty
displayed here by this PP is prompted purely by the difficult
"einrasten" or whether "in the case of" is also problematic. In
the Hauptlauf, PP I does not attempt to suggest a translation for
the second part of the TU (ie. "in the case of locked crumb
compartment") and, had the "when..." subordinate clause occurred to
her at that point, this would perhaps be apparent from the TAP.
The TU would then have been almost complete (as in Step 20(N):
"the Braun toaster only operates when the crumb compartment is"),
lacking only a suitable rendering of "eingerastet". This was not

the case, however, and the fact that the PP did not reach this stage in the Hauptlauf could indicate an inability to think of a replacement structure for "in the case of". In the Nachlauf, this replacement subordinate clause is the first suggestion made for this part of the TU. This is probably attributable to the fact that PP I had now reached the end of the text and had therefore already dealt with the "in the case of" form several times.

PP II (page 79), in contrast to PP I, introduces a subordinate clause quite quickly (in Step 9) and then tackles the lexical item "locked". There is no evidence here to suggest that this construction is problematic, or that the PP considers any form other than a "when..." subordinate clause to replace "in the case of + NP".

PP III (page 79) recognises the origin of "in the case of" and acknowledges the inadequacy of a literal translation into English of "bei": "that was the problem with the bei which you can't usually do very well in English literally anyway" (Step 14). He suggests a subordinate clause introduced by "when" in Step 18. Here too, a "when..." clause seems to be the only possibility considered.

PP IV (page 80), unlike the other participants, uses a subordinate clause introduced by "after" and begins this in Step 14. The other PPs employed active copular clauses but PP IV uses a past passive. PP IV's tendency to use the passive was highlighted in Chapter 2. Its occurrence here has possibly prompted the use of "after" to introduce the clause. All other participants employed "when" in

their versions.

Greenwood observed that, in his corpus, the third largest category of noun-to-verb shifts in moving from German to English involve the recasting of the sentence in English so that the German noun phrase was expressed by means of a clause [6], and this has also been the outcome of the post-editing process here.

PP I

PPV: The Braun toaster only operates when the crumb compartment is locked

STEP	CATEGORY	UTTERANCE	PAUSE

Hauptlauf

1.	RD.STXT	der Braun Toaster läßt sich ein	1.1
2.	RD.STXT	eingerast Krümelschublade betreiben	1.5
3.	RD.MT	lets only operate in the case of locked crumb compartment	...
4.	RPT.MT	lets only operate	...
5.	COMM.	that's wrong	20.3
6.	COMM.	puh!	...
7.	RPT.STXT	der Braun läßt sich	...
8.	RPT.MT	the Braun toaster lets only operate in the case of locked crumb compartment	...
9.	COMM.	God!	1.0
10.	SUGG.TR.1	the Braun toaster	...
11.	RPT.STXT	läßt sich	2.7
12.	CONT.SUGG.TR.1	only operates	...
13.	RPT.STXT	nur bei eingerasteter Krümelschublade	4.6
14.	RPT.SUGG.TR.1	Braun toaster	6.9
15.	RPT.SUGG.TR.1	only operates	3.0
16.	RPT.MT	in the case of locked crumb compartment	...
17.	COMM.	hmhm(r)	10.0
18.	RPT.STXT	eingerasteter	47.3
19.	RPT.STXT	eingerasteter	...
20.	RD.RB	einrasten	1.5
21.	RD.RB	to engage	1.7
22.	RPT.MT	lets only operate in the case of locked crumb	4.4
23.	SUGG.TR.2	the Braun toaster operates only	2.5
24.	RPT.MT	in the case	2.3
25.	RPT.STXT	eingerasteter	7.2
26.	COMM.	hmhm(r)	5.2
27.	RPT.MT	the Braun toaster	7.8
28.	RPT.MT	locked	8.4
29.	RPT.STXT	Krümelschublade	13.8
30.	COMM.	hm(r) come back to it	...

Nachlauf

1.	COMM.	five	...
2.	RD.MT	the Braun toaster	1.9
3.	RD.STXT	der Braun Toaster läßt sich nur bei eingerast betreiben	...
4.	RD.MT	the Braun toaster lets only operate in the case of locked crumb compartment	1.7
5.	RPT.SUGG.TR.1	the Braun toaster only operates	7.3
6.	RPT.STXT	bei eingerasteter Krümelschublade	1.7
7.	RPT.SUGG.TR.1	the Braun toaster only operates	6.2
8.	RPT.SUGG.TR.1	Braun toaster only operates	8.5
9.	CONT.SUGG.TR.1	when	2.0
10.	CONT.SUGG.TR.1	the crumb compartment	9.4
11.	CONT.SUGG.TR.1	is locked	1.9
12.	RPT.SUGG.TR.1	the Braun toaster only operates when the crumb compartment is locked	5.9
13.	COMM.	hm(r)	6.3
14.	RPT.SUGG.TR.1	operates when the crumb compartment is locked	...
15.	COMM.	hm(a)	1.4
16.	SUGG.TR.2	is fixed	...
17.	COMM.	no	4.3
18.	COMM.	fixed wouldn't be good there	...
19.	RPT.SUGG.TR.1	is	5.5
20.	RPT.SUGG.TR.1	Braun toaster only operates when the crumb compartment is	9.9
21.	RPT.SUGG.TR.1	Braun toaster only operates when the crumb com	6.2
22.	COMM.	maybe it is locked I can't think of anything else	2.4
			....

PP II

PPV: The Braun toaster only works when the crumb compartment is
     locked

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	der Braun To Braun Toaster läßt sich	1.5
2.	RD.MT	the Braun toaster lets only operate in the case of locked	1.2
3.	RD.MT	crumb compartment?	2.7
4.	COMM.	hm(r) doesn't make sense direct translation from the German?	2.3
5.	COMM.	you don't need the lets	---
6.	SUGG.TR.1	the Braun toaster	9.7
7.	CONT.SUGG.TR.1	the Braun toaster operates	1.6
8.	RPT.STXT	bei eingerasteter Krümelschublade	6.0
9.	SUGG.TR.2	the Braun toaster only works when	2.0
10.	RPT.MT	in the case of locked crumb compartment	---
11.	CONT.SUGG.TR.2	when the crumb compartment is locked?	---
12.	RPT.STXT	eingerasteter	13.2
13.	RPT.SUGG.TR.2	when the	2.5
14.	COMM.	oops!	14.6
15.	RPT.SUGG.TR.2	is locked	5.2
16.	COMM.	oops!	11.2
17.	RPT.SUGG.TR.2	crumb compartment is locked	1.5
18.	COMM.	just look up einrasten	18.6
19.	COMM.	hm(r)	1.8
20.	RD.RB	to engage	5.1
21.	COMM.	em(r)	3.5
22.	RPT.STXT	bei eingerasteter Krümelschublade	---
23.	SUGG.TR.3	engaged	---
24.	RPT.SUGG.TR.2	locked	2.4

PP III

PPV: The Braun toaster can only be operated when the crumb
     compartment is locked

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	five	1.2
2.	RD.STXT	der Braun Toaster läßt sich nur eingerasteter Krümelschublade?	2.1
3.	RD.MT	Braun to lets only operate	---
4.	COMM.	ahah(n) that's eh(r)	2.0
5.	CONT.COMM	German grammar they've got in here	1.3
6.	SUGG.TR.1	Braun	3.1
7.	CONT.SUGG.TR.1	toaster	1.4
8.	CONT.SUGG.TR.1	can only be operated	---
9.	COMM.	of course it would have to be	2.9
10.	RPT.SUGG.TR.1	Braun toaster	1.5
11.	RPT.SUGG.TR.1	can only be operated	3.3
12.	COMM.	and	---
13.	RD.MT	in the case of	---
14.	COMM.	ahah(n)! that was the problem with the bei which you can't usually do very well in English literally anyway	---
15.	RPT.SUGG.TR.1	the Braun operating	---
16.	COMM.	eh(r)	---
17.	RPT.SUGG.TR.1	toaster can only be operated	1.0
18.	COMM.	I would just say when the crumb compartment if that's what you want to call it	1.0
19.	COMM.	crumb drawer would sound too stupid	---
20.	CONT.SUGG.TR.1	when the crumb compartment is	---
21.	COMM.	well	---
22.	CONT.SUGG.TR.1	locked	---
23.	COMM.	for eingerastet	1.5
24.	COMM.	yeh that would be okay	3.3

PP IV

PPV: The toaster can only be operated after the crumb compartment
      has been closed

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM	number five	1.3
2.	RD.STXT	bei eingerasteter Krümelschublade betreiben	---
3.	RD.MT	the Braun toaster	---
4.	COMM	oh God!	---
5.	CONT.RD.MT	lets only operate in the case of locked crumb compartment	---
6.	COMM.	so this has obviously got to be changed	2.5
7.	COMM.	em(r)	1.4
8.	SUGG.TR.1	the toaster	1.1
9.	COMM.	I've left out Braun because I always think that this is extraneous anyway re keeping repeating the maker's name	---
10.	CONT.SUGG.TR.1	the toaster can only be	3.2
11.	CONT.SUGG.TR.1	operated	---
12.	COMM.	instead of lets	2.4
13.	COMM.	em(r)	5.1
14.	CONT.SUGG.TR.1	after	2.0
15.	CONT.SUGG.TR.1	the	1.7
16.	CONT.SUGG.TR.1	crumb	2.3
17.	COMM.	em(r) well	1.1
18.	CONT.SUGG.TR.	compartment	2.3
19.	COMM.	I suppose that's alright it's a bit unusual but on the other hand it depends what it's like and I haven't got a picture of the damned thing so I don't know really whether it is a compartment or a drawer	2.3
20.	RPT.SUGG.TR.1	the Braun toaster can only be operated after the crumb compartment	1.4
21.	COMM.	em(r)	1.0
22.	RPT.SUGG.TR.1	after the crumb compartment	1.6
23.	CONT.SUGG.TR.1	has	1.0
24.	CONT.SUGG.TR.1	been	1.3
25.	CONT.SUGG.TR.1	closed	---
26.	COMM.	I prefer to locked locked is a bit sort of exaggerated	1.2

(ii)   TRANSLATION UNIT 9

    ST: Die Lifttaste wird beim Einschalten elektromagnetisch
          festgehalten und nach Beendigung des Toastvorgangs
          automatisch angehoben

    MT: The lift key is observed electro-magnetically
          (electromagnetic) in the case of switching on and is
          lifted automatically at the completion of the toasting
          process

This TU contains two prepositional noun phrases which undergo

changes in the post-editing process. "In the case of switching on"

occurs in the MT as a result of the use of "bei", and was converted

by all four PPs into a verbal construction. The second one is "at

the completion of the toasting process", which was converted by

only one PP into a verbal form.

PP I

PPV: The lift button is electro-magnetically controlled ie. it is
      held in place after being pressed down and automatically pops
      up at the completion of the toasting process

      When pressed down, the lift button is held in place electro-
      magnetically and pops up automatically on completion of the
      toasting process

PP II

PPV: The lift key is kept depressed by an electromagnet when the
      toaster is switched on and rises automatically when the
      toasting process is completed

PP III

PPV: The lift button is held by an electromagnet when the toaster
      is switched on and is lifted automatically after toasting

PP IV

PPV: The lift key is electromagnetically controlled after being
      pushed down/depressed and automatically returns to its

normal position after toasting

PP I (pages 84-5) generated two written versions of this TU. The
second was produced after the first, both in the TAP as well as in
written form. It begins in Step 76 and is presumably the more
pertinent one. However, PP I demonstrates no dissatisfaction in
relation to the first version, either verbally or on paper (eg. by
putting it in parenthesis).

"In the case of switching on" becomes "when switched on" in Step 15
but this is changed to the gerundial "after being switched down"
(probably meant to be "...switched on") in Steps 53 and 54 and then
"after being pressed down" in Step 55. In the second version this
becomes "when pressed down" (Step 76), a contracted passive clause.
The progression from reading the ST in Step 14 to the first
translation suggestion for this part of the TU was immediate. This
suggestion was later discarded but it would seem to indicate that
PP I's initial solution for "bei + NP" is usually a "when..."
clause, possibly based on previous translation experience or
training.

PP II (page 86) tentatively suggests a "when..." clause in Step 16
to replace "in the case of switching on". This choice is
subsequently consolidated in Step 34. In fact, PP II also
introduces a "when..." clause for "on completion of the toasting
process", thus producing parallelism in the syntactic form of the
TU. In PP III's case (page 87), Step 21 sees the use of a
"when..." subordinate clause instead of "in the case of" and PP III
comments on this as being "better" (Step 22).

PP IV (page 88) uses a gerundial construction introduced by "after" (Steps 19-21) in place of the "in the case of" phrase. This corresponds to the behaviour of participants in TU 5, where PPs I, II, and III used "when..." clauses and PP IV opted for an "after..." clause. In this TU, PP I's version also contained an "after..." clause but PPs II and III used "when..." clauses.

PP I

PPV: The lift button is electro-magnetically controlled ie. it is
held in place after being pressed down and automatically pops
up at the completion of the toasting process

When pressed down, the lift button is held in place electro-
magnetically and pops up automatically on completion of the
toasting process

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	nine	1.4
2.	RD.STXT	die Lifttaste wird beim Einschalten elektromagnetisch festgehalten und automatisch angehoben	1.2
3.	RD.MT	the lift key is observed	2.8
4.	CONT.RD.MT	electromag magnetically in the case of switching on and is lifted automatically at the completion of the the toasting process	---
5.	COMM.	hm(a) I'd say that sounds okay but	---
6.	RPT.MT	the lift key is observed	1.6
7.	RPT.STXT	beim Einschalten festgehalten	---
8.	COMM.	no!	---
9.	RPT.MT	the lift key is observed	1.7
10.	SUGG.TR.1	is controlled?	2.0
11.	RPT.STXT	festgehalten?	---
12.	COMM.	hmhm(a)	---
13.	SUGG.TR.2	maintained	1.1
14.	RPT.MT	in the case of switching on	---
15.	SUGG.TR.3	when switched on and is lifted automatically	1.2
16.	RPT.MT	at the completion of the toasting process	4.9
17.	RPT.MT	the lift key	7.6
18.	RPT.MT	the lift key	1.8
19.	COMM.	do you have a key on a toaster?	2.1
20.	COMM.	hmhm(a)	2.2
21.	SUGG.TR.4	the lift button is observed	4.3
22.	RPT.SUGG.TR.4	the lift button	6.5
23.	RPT.SUGG.TR.4	is	1.5
24.	RPT.SUGG.1	controlled?	3.3
25.	CONT.SUGG.1	electromagnetically controlled	2.6
26.	COMM.	hm(r) is that right?	6.7
27.	RPT.SUGG.TR.1	is controlled	6.5
28.	COMM.	hm(a) I think it's okay	---
29.	RPT.SUGG.1	is electromagnetically controlled	1.7
30.	COMM.	it's not very clear though	2.6
31.	RPT.SUGG.TR.1	electromagnetically controlled	11.9
32.	RPT.STXT	beim Einschalten?	12.0
33.	RPT.MT	is lifted automatically	---
34.	RPT.SUGG.TR.1	the lift button is electromagnetically controlled	9.5
35.	RPT.STXT	beim Einschalten	---
36.	COMM.	does that mean of the whole toaster or of the button	1.7
37.	CONT.COMM.	itself?	1.5
38.	COMM.	(tuts)	3.0
39.	COMM.	hm(r)	---
40.	COMM.	of the toaster I'd say	---
41.	RPT.SUGG.TR.1	the lift button is electromagnetically controll	1.3
42.	RPT.STXT	festgehalten	2.7
43.	RPT.SUGG.TR.2	maintained	7.8
44.	COMM.	hmhm(r)	---
45.	RPT.SUGG.TR.1	the lift button is electromagnetically controlled	---
46.	COMM.	maybe that's okay	5.3
47.	COMM.	beim Einschalten just means for the button therefore is electromagnetically	

		controlled could be okay could cover	
		the whole thing	1.0
48.	RPT.STXT	und nach Beendigung des Toast	---
49.	COMM.	hm(r)	1.7
50.	CONT.SUGG.TR.1	and is lifted automatically at the	
		completion of the toasting process	27.1
51.	CONT.SUGG.TR.1	ie	3.7
52.	CONT.SUGG.TR.1	it is held in place	5.3
53.	CONT.SUGG.TR.1	after being	1.3
54	CONT.SUGG.TR.1	switched down?	---
55.	SUGG.TR.5	pressed down?	5.0
56.	RPT.SUGG.TR.5	pressed down	6.3
57.	COMM.	hm(r)	---
58.	CONT.SUGG.TR.5	and is lifted automatically	1.0
59.	SUGG.TR.6	and automatically	11.3
60.	COMM.	(sighs)	---
61.	CONT.SUGG.TR.6	and automatically pops up	---
62.	COMM.	hm(r)	8.7
63.	COMM.	hm(r)	4.7
64.	COMM.	I think pops up	4.8
65.	RPT.MT	at the completion	---
66.	CONT.SUGG.TR.6	after toasting	10.5
67.	COMM.	(sighs)	7.8
68.	CONT.SUGG.TR.6	at the completion of the toasting	
		process	---
69.	COMM.	I think is okay	1.8
70.	RPT.SUGG.TR.6	the completion	1.6
71.	RPT.SUGG.TR.6	of the toasting process	2.7
72.	COMM.	hm(r)	1.4
73.	COMM.	that sounds awful	---
74.	RPT.SUGG.TR.6	the lift button is electromagnetically	
		controlled ie it is held in place	
		after being pressed down and	
		automatically pop pops up at the	
		completion of the toasting process	---
75.	COMM.	hm(r)	5.6
76.	SUGG.TR.7	when pressed down the lift button is	
		held in place by an electromagnetic	
		process	1.2
77.	CONT.SUGG.TR.7	and automatically pops up after	
		completion of the toasting process	1.0
78.	COMM.	two processes no	2.6
79.	COMM.	hm(r)	3.4
80.	RPT.SUGG.TR.7	when pressed down	5.7
81.	CONT.SUGG.TR.7	the lift button	2.2
82.	CONT.SUGG.TR.7	is held in place	7.0
83.	CONT.SUGG.TR.7	in place electromagnetically	---
84.	COMM.	hm(a) sounds okay I think	1.3
85.	RPT.SUGG.TR.7	electromagnetically	4.2
86.	CONT.SUGG.TR.7	and automatically	---
87.	SUGG.TR.8	pops up automatically?	1.8
88.	COMM.	automatically should come before the	
		verb	---
89.	RPT.SUGG.TR.8	pops up	2.3
90.	RPT.SUGG.TR.8	automatically	4.6
91.	CONT.SUGG.TR.8	at the completion	---
92.	SUGG.TR.9	on completion	1.7
93.	RPT.SUGG.TR.9	on completion	4.4
94.	CONT.SUGG.TR.9	of the toasting process	1.5
95.	COMM.	that sounds better still don't know	
		what the lift button is though	1.2

PP II

PPV: The lift key is kept depressed by an electromagnet when the
      toaster is switched on and rises automatically when the
      toasting process is completed

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	okay	---
2.	RD.MT	the lift key is observed electromagnetically	3.5
3.	CONT.RD.MT	in the case of switching on is lifted automatically at the completion	---
4.	RPT.MT	lift key is observed electro	1.6
5.	RPT.MT	observed?	2.5
6.	RPT.MT	in the case of switching on and is lifted automatically at the completion of toasting	2.5
7.	RD.STXT	wird beim Ein	1.1
8.	RD.STXT	festgehalten	1.3
9.	COMM.	that means like it's actually kept down	---
10.	SUGG.TR.1	depressed	7.9
11.	COMM.	so	---
12.	SUGG.TR.2	the lift	1.3
13.	CONT.SUGG.TR.2	key	1.6
14.	CONT.SUGG.TR.2	is	2.1
15.	COMM.	would you say	9.5
16.	SUGG.TR.3	when the toaster is switched	---
17.	RPT.SUGG.TR.3	is	---
18.	COMM.	festhalten	4.5
19.	SUGG.TR.4	is kept down	12.4
20.	RPT.MT	is observed	3.4
21.	COMM.	festhalten	---
22.	COMM.	hm(r) can't think of anything	9.2
23.	RD.RB	festhalten keep a firm hold on keep hold to hold on to to stress to hold to detain to record to capture	4.0
24.	COMM.	hm(r)	9.6
25.	SUGG.TR.5	is kept	2.2
26.	CONT.SUGG.TR.5	depressed	2.8
27.	COMM.	em(r)	1.8
28.	RPT.STXT	elektromagnetisch	1.4
29.	RPT.MT	electromagnetically	8.4
30.	SUGG.TR.6	by	2.6
31.	CONT.SUGG.TR.6	by an electromagnet?	7.6
32.	COMM.	hm(r)	1.0
33.	RPT.MT	in the case of switching on	---
34.	RPT.SUGG.TR.3	when the toaster is switched on	10.7
35.	RPT.MT	and is lifted automatically at the completion of the toasting	3.3
36.	CONT.SUGG.TR.3	and rises automatically?	10.2
37.	CONT.SUGG.TR.3	at the completion of the toasting process	2.2
38.	RPT.SUGG.TR.3	and rises	1.3
39.	SUGG.TR.7	when the toasting process is	5.1
40.	CONT.SUGG.TR.7	is completed	10.4

PP III

PPV: The lift button is held by an electromagnet when the toaster
      is switched on and is lifted automatically after toasting

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number nine	. . .
2.	RD.STXT	die Lifttaste wird beim Einschalten elektromagnetisch festgehalten und nach Beendigung des Toastvorganges automatisch angehoben	2.5
3.	COMM.	eh(r) festhalten to observe	1.0
4.	COMM.	das wollen wir 'mal festhalten em(r) -yeh they made a mistake there	1.5
5.	COMM.	well	3.0
6.	RD.MT	the lift	1.7
7.	CONT.RD.MT	key	. . .
8.	COMM.	sounds strange in English	. . .
9.	RPT.MT	the lift key!	1.7
10.	COMM.	I would probably call it a lift button really	4.0
11.	COMM.	em(r)	2.7
12.	SUGG.TR.1	is	2.4
13.	COMM.	eh(r)	
14.	COMM.	well I would just say	. . .
15.	CONT.SUGG.TR.1	is held	2.8
16.	CONT.SUGG.TR.1	electromagnetically	1.1
17.	COMM.	in brackets they've got electromagnetic yeh that's the eh(r)	1.1
18.	CONT.COMM.	the adjective though	1.9
19.	RPT.SUGG.TR.1	electromagnetically	6.2
20.	COMM.	eh(r)	. . .
21.	CONT.SUGG.TR.1	when the toaster is switched on	. . .
22.	COMM.	would be better	6.7
23.	CONT.SUGG.TR.1	on and	3.5
24.	CONT.SUGG.TR.1	is	1.3
25.	CONT.SUGG.TR.1	lifted automatically	. . .
26.	COMM.	yeh I'll do the same as they've done here	1.2
27.	RPT.SUGG.TR.1	automatically	2.1
28.	RD.MT	at the completion of the toasting process	. . .
29.	COMM.	well that sounds too highfalutin	. . .
30.	RPT.SUGG.TR.1	is lifted automatically	1.0
31.	COMM.	em(r)	. . .
32.	CONT.SUGG.TR.1	when the toast is ready	. . .
33.	COMM.	(laughs)	. . .
34.	COMM.	no eh(r)	. . .
35.	RPT.SUGG.TR.1	and is lifted automatically	1.2
36.	SUGG.TR.2	after toasting!	. . .
37.	COMM.	it's as simple as that	10.9
			. . . .

PP IV

PPV: The lift key is electromagnetically controlled after being
pushed down/depressed and automatically returns to its
normal position after toasting

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number nine	- - -
2.	RD.STXT	die Lifttaste wird beim Einschalten elektromagnetisch festgehalten und nach Beendigung des Toastvorganges automatisch angehoben	2.6
3.	COMM.	ah ja	4.6
4.	COMM.	ahah(a) ahah(a)	28.8
5.	COMM.	so it does look as though I'm going to have to	1.0
6.	CONT.COMM.	find some peculiar word for Lifttaste	12.0
7.	COMM.	(sighs)	8.2
8.	COMM.	hm(r)	4.7
9.	COMM.	(sighs)	9.9
10.	COMM.	okay let's assume that it is in fact some sort of lift key	4.8
11.	CONT.COMM.	.similar to a typewriter	1.7
12.	CONT.COMM.	key·	3.7
13.	CONT.COMM.	so for want of a better idea and knowing jolly well that it won't be in the dictionary I shall use this expression	1.7
14.	SUGG.TR.1	the lift key	3.5
15.	COMM.	em(r)	2.5
16.	CONT.SUGG.TR.1	is	3.6
17.	CONT.SUGG.TR.1	electro-mag-net-ic-ally	2.0
18.	CONT.SUGG.TR.1	controlled	3.5
19.	COMM.	em(r)	2.2
20.	CONT.SUGG.TR.1	after	2.0
21.	CONT.SUGG.TR.1	being	3.9
22.	CONT.SUGG.TR.1	pushed down	2.5
23.	COMM.	and I write an alternative	- - -
24.	CONT.SUGG.TR.1	depressed	- - -
25.	COMM.	because if it is a sort of lever then pushed down would be better	1.0
26.	CONT.COMM.	and if it's more a a button rather than a lever or a key instead of a lever then depressed would be better but that's something I can't know so that choice of word	1.9
27.	CONT.COMM.	would	1.1
28.	CONT.COMM.	eh(r) have to be according to what the thing looks like in reality	1.6
29.	RPT.SUGG.TR.1	the key	- - -
30.	RPT.SUGG.TR.1	the lift key is electromet is electromagnetically controlled after being pushed down or depressed	1.0
31.	CONT.SUGG.TR.1	and	2.5
32.	COMM.	eh(r)	- - -
33.	CONT.SUGG.TR.1	returns to its normal position	2.5
34.	COMM.	now	- - -
35.	RPT.SUGG.TR.1	returns to its normal	1.7
36.	RPT.SUGG.TR.1	position	1.1
37.	COMM.	I prefer that to all this rubbish here about	1.9
38.	RD.MT	lifted automatically	- - -
39.	COMM.	although I suppose I'll have to put that in	- - -
40.	RPT.SUGG.TR.1	the lift key is ultram is electromagnetically controlled after being pushed down after being depressed and returns to its normal	- - -
41.	CONT.SUGG.TR.1	and automatically returns to its normal position	1.1
42.	COMM.	yeh	- - -
43.	RPT.SUGG.TR.1	and automatically	- - -
44.	RPT.SUGG.TR.1	auto-mat-ic-ally returns to its normal position after toasting	4.7
45.	COMM.	that should be enough	4.3
			- - - -

(iii)   TRANSLATION UNIT 15

ST: Wie bei allen Doppelschlitz-Toastern kann es beim
      Toasten von nur einer Scheibe Unterschiede in der
      Bräunung beider Seiten geben

MT: As there can be differences in the browning of both
      pages (side) in the case of all two-slice toasters
      when the toasting only a slice

There are two "preposition + noun phrases" in this TU. "When the

toasting" ("beim Toasten") is, of course, grammatically incorrect

and must be changed. The second — "in the case of all two-slice

toasters" — is replaced by a "when/if/after..." clause in only one

PP's version, the other participants employing non-verbal phrases

to convey the "bei + NP".

PP I

PPV: When toasting only 1 slice of bread in a two-slice toaster,
      there can be differences in the degree of browning of the
      two sides

PP II

PPV: If you use a two-slice toaster to toast one slice of bread
      the two sides could be toasted to different degrees

PP III

PPV: As with all double toasters there can be differences between
      both sides when toasting one slice of bread only

PP IV

PPV: Differences in the degree of toasting can be found in all
      double-size toasters when only one slice of bread is inserted

PP I's exclamations (page 92) of Steps 4 ("ugh"!), 6 ("goodness"!)

and 11 ("oh goodness"!) reflect a lack of understanding of the

ungrammatical MT. All becomes clear in Step 14, however. Here,

upon reading the ST once again, the PP begins to post-edit this TU. She begins by seeking an alternative structure for "when the toasting" and tentatively starts her version with "if you're" (Step 16). She then tackles "in the case of..." with what by now obviously constitutes this PP's standard structure for "bei + NP"; namely a "when..." clause (Step 18).

She then reverts to her original starting point for this TU: "when the toasting only a slice", and converts the "if..." clause begun in Step 16 into a "when..." clause, as was present in the MT but without the definite article (Step 23). In Step 25 she comments that this is a better way to start the TU and "in the case of all two-slice toasters" becomes "in a two-slice toaster", an adverbial phrase of the "when..." clause. This reordering of the sentence constituents actually entails a shift in meaning or at least in emphasis. The ST focused on the fact that the existence of a difference in browning of the two slices of bread is perfectly normal (ie. a statement in defence of the Braun model), and PP I's version is neutrally stating that such a difference exists.

PP II (page 93) misreads the MT in Step 15, unconsciously omitting the inappropriate definite article. She then consciously discards the definite article (Step 17), stating that it was not needed, and thereby produces a verbal clause. In Steps 32 and 33 the MT "when the toasting only a slice" and "in the case of all two-slice toasters" are incorporated into "when a two-slice toaster is used to toast one slice". In Steps 36 and 37 this version is superseded, not surprisingly — considering PP II's personal

preferences — by an active version: "if you use a two-slice toaster to toast only one slice". "When the toasting..." has thus become an infinitival construction: "to toast".

PP III (page 94) finds the MT of this TU "totally ridiculous" (Step 8). He begins his version with the post-editing of "in the case of all two-slice toasters" and returns the "as" ("wie") to its correct position. In Steps 29 and 30 he produces a correct "when..." clause and comments in the final step (34) on the original MT "when the toasting only a slice": "God knows where they got that from". This indicates that he has not realised that the MT is a nominal construction, a literal translation of the German ("bei — dem — Toasten" —> "when — the — toasting"), but sees this MT as containing an inexplicable and unwarranted definite article.

The initial reaction of PP IV (page 95): "this is hopeless" (Step 5) is similar to those of PPs I and III. "In the case of..." becomes "in all..." in Step 12 and the "when the toasting..." is changed in Steps 19-22 to "when only one slice of bread is inserted".

PP I

PPV: When toasting only 1 slice of bread in a two-slice toaster,
     there can be differences in the degree of browning of the
     two sides

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	fifteen	2.7
2.	RD.STXT	wie bei allen Doppelschlitz-Toastern kann es beim Toasten nu von nur einer Scheibe Unterschiede in der Bräunung beider Seiten geben	1.0
3.	RD.MT	as there can be no differences in the browning of both of both pages	...
4.	COMM.	ugh!	...
5.	RD.MT	in the case of all two-slice toasters when the toast the toasting only a slice	...
6.	COMM.	goodness	1.6
7.	COMM.	(sighs)	...
8.	RPT.MT	as there can be differences	...
9.	RPT.MT	as there can be differences in the browning of both sides in the case of all two-slice toasters	1.3
10.	RPT.MT	when the toasting only a slice	...
11.	COMM.	oh goodness!	1.9
12.	RPT.STXT	wie bei allen Doppelschlitz-Toastern kann es beim Toasten	2.2
13.	RPT.STXT	von nur einer Scheibe Unterschiede in der Bräunung	1.7
14.	COMM.	oh I see!	8.2
15.	COMM.	so	...
16.	SUGG.TR.1	if you're	...
17.	RPT.MT	in the case of	4.8
18.	SUGG.TR.2	when using a toaster	2.0
19.	RPT.MT	a two-slice toaster	...
20.	RPT.STXT	Doppelschlitz-Toaster	...
21.	COMM.	hm(a)	...
22.	RPT.MT	two-slice toaster	3.1
23.	SUGG.TR.3	when toasting only one slice of bread in a two-slice toaster	1.7
24.	CONT.SUGG.TR.3	there can be differences	2.2
25.	COMM.	okay that's a better way to start it off	...
26.	RPT.SUGG.TR.3	when toasting	2.5
27.	RPT.SUGG.TR.3	only one slice	2.3
28.	RPT.SUGG.TR.3	of bread	3.1
29.	RPT.SUGG.TR.3	in a two-slice toaster	6.2
30.	RPT.SUGG.TR.3	there can	6.0
31.	RPT.SUGG.TR.3	be differences	4.3
32.	CONT.SUGG.TR.3	in the degree of browning	8.9
33.	RPT.SUGG.TR.3	in the degree of browning	3.0
34.	CONT.SUGG.TR.3	of each side	6.0
35.	RPT.SUGG.TR.3	when toasting only one slice of bread in a two-slice toaster there can be differences in the degree of browning	2.2
36.	SUGG.TR.4	of the two sides	8.3
37.	COMM.	okay that'll do	...
			....

PP II

PPV: If you use a two-slice toaster to toast one slice of bread
      the two sides could be toasted to different degrees

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	em(r)	---
2.	RD.MT	as there can be differences in the browning of both pages	---
3.	COMM.	it's definitely sides	---
4.	RPT.MT	there can be no difference in the browning	1.4
5.	RD.STXT.	Seiten	3.9
6.	RPT.MT	as there can be no difference in the browning of both	1.0
7.	CONT.RD.MT	sides in the case of all two-slice toasters	1.0
8.	CONT.RD.MT	when the toasting only a slice?	1.3
9.	COMM.	oh God! doesn't make sense	4.6
10.	COMM.	the German	---
11.	RD.STXT	wie bei allen Doppelschlitz-Toastern kann es beim Toasten von nur einer Scheibe Unterschiede in der Bräunung beider Seiten geben	1.3
12.	RPT.STXT.	wie bei allen Doppelschlitz-To Doppelschlitz-Toastern	2.6
13.	RPT.MT	as in the case of all two	2.6
14.	RPT.MT	two-slice toasters?	6.1
15.	RPT.MT	when toas	---
16.	RPT.MT	when the toasting	---
17.	SUGG.TR.1	when toasting only a slice	---
18.	COMM.	don't need the the	1.6
19.	RPT.SUGG.TR.1	toasting	---
20.	RPT.STXT	einer Scheibe	---
21.	RPT.MT	a slice	6.2
22.	RPT.MT	be a difference in the browning of both sides	3.4
23.	RPT.STXT	Doppelschlitz-Toaster	---
24.	RPT.MT	two-slice toasters?	2.0
25.	COMM.	never knew that	6.6
26.	COMM.	okay	---
27.	SUGG.TR.1	there can be a difference	1.7
28.	CONT.SUGG.TR.1	browning	1.0
29.	CONT.SUGG.TR.1	both sides	---
30.	RPT.SUGG.TR.1	there can be a difference in browning of both sides	3.7
31.	CONT.SUGG.TR.1	bread	3.2
32.	CONT.SUGG.TR.1	when	6.0
33.	CONT.SUGG.TR.1	a two-slice toaster is used to toast one slice	---
34.	COMM.	or	1.4
35.	COMM.	could use it	---
36.	SUGG.TR.2	if you use a two-slice toaster	1.2
37.	CONT.SUGG.TR.2	toast only one slice	8.0
38.	RPT.STXT	kann es beim Toasten von nur einer Scheibe Unterschiede in der Bräunung beider Seiten geben	---
39.	COMM.	okay	---
40.	RPT.SUGG.TR.2	if you use	1.2
41.	RPT.SUGG.TR.2	a two-slice toaster?	10.6
42.	RPT.SUGG.TR.2	to toast	1.6
43.	CONT.SUGG.TR.2	one slice of bread	12.7
44.	COMM.	hm(r)	---
45.	CONT.SUGG.TR.2	there can be a difference	7.9
46.	CONT.SUGG.TR.2	in the	1.2
47.	CONT.SUGG.TR.2	browning	3.5
48.	RPT.STXT	kann es beim Toasten von nur einer Scheibe Unterschiede	---
49.	RPT.SUGG.TR.2	use a two-slice toaster to toast one slice of bread there can be differences in the browning of	3.3
50.	CONT.SUGG.TR.2	both sides	6.8
51.	COMM.	don't know whether my translation's any better	---
52.	RPT.SUGG.TR.2	if you use a two-slice toaster to toast one slice of bread	1.0
53.	RPT.SUGG.TR.2	browning of both sides	2.3
54.	RPT.SUGG.TR.2	there can be differences in the browning	1.4
55.	RPT.SUGG.TR.2	of both sides	8.8
56.	COMM.	or	---
57.	SUGG.TR.3	two sides could be toasted to different degrees	1.0
58.	RPT.SUGG.TR.2	if you use a two-slice toster to toast one slice of bread	14.3
59.	COMM.	change	---
60.	RPT.SUGG.TR.3	the two	1.6
61.	RPT.SUGG.TR.3	sides	1.7
62.	RPT.SUGG.TR.3	could be toasted	2.0
63.	RPT.SUGG.TR.3	to different	2.6
64.	RPT.SUGG.TR.3	degrees	2.3

PP III

PPV: As with all double toasters there can be differences between
       both sides when toasting one slice of bread only

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	wie bei allen Doppelschlitz-Toastern Scheibe Unterschiede in der Bräunung beider Seiten geben	2.1
2.	RD.MT	as there can be differences in the browning of both pages side!	...
3.	COMM.	(laughs)	...
4.	CONT.COMM.	and side they've even got in the singular	...
5.	COMM.	hm(r)	...
6.	RD.MT	in the case of all two-slice toasters when the toasting only a slice	1.8
7.	COMM.	oh that's a total pandimonium eh(r)	...
8.	COMM.	yeh that's totally ridiculous in English	1.2
9.	COMM.	so em(r)	1.6
10.	COMM.	I'd rather do it like	...
11.	SUGG.TR.1	as with all	2.8
12.	CONT.SUGG.TR.1	double tosters	6.3
13.	COMM.	or	1.0
14.	COMM.	perhaps call it	2.7
15.	SUGG.TR.2	toasters for	2.3
16.	COMM.	hm(r)	4.8
17.	CONT.SUGG.TR.2	toasters for toasting	1.1
18.	CONT.SUGG.TR.2	two slices of bread at the same time	...
19.	COMM.	that's all too long I'll just leave the double toasters	...
20.	RPT.SUGG.TR.1	as with all double	1.3
21.	COMM.	hm(r)	2.4
22.	RPT.SUGG.TR.1	toasters	3.4
23.	CONT.SUGG.TR.1	there can	2.3
24.	CONT.SUGG.TR.1	be	7.2
25.	CONT.SUGG.TR.1	differences	3.5
26.	CONT.SUGG.TR.1	between	2.9
27.	CONT.SUGG.TR.1	both sides	...
28.	COMM.	(sighs)	4.5
29.	CONT.SUGG.TR.1	when	3.1
30.	CONT.SUGG.TR.1	toasting one slice of bread only	4.3
31.	RPT.SUGG.TR.1	as with all double toasters there can be differences between both sides when toasting a slice of bread	1.6
32.	CONT.SUGG.TR.1	only	2.7
33.	COMM.	yeh they've done von nur einer Scheibe when toasting on only a slice of course that's wrong	...
34.	RPT.MT	when the toasting only a slice	1.3
35.	COMM.	God knows where they got that from	1.4
			....

PP IV

PPV: Differences in the degree of toasting can be found in all
      double-size toasters when only one slice of bread is inserted

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number fifteen	...
2.	RD.STXT	wie bei allen Doppelschlitz-Toastern	1.7
3.	RD.STXT	kann es beim Toasten von nur einer Scheibe	1.1
4.	RD.STXT	Unterschiede in der Bräunung beider Seiten geben	4.4
5.	COMM.	ah yeh this is hopeless so number fifteen	2.6
6.	COMM.	em(r)	3.0
7.	SUGG.TR.1	differences	3.7
8.	CONT.SUGG.TR.1	in the degree	2.7
9.	CONT.SUGG.TR.1	of toasting	2.4
10.	CONT.SUGG.TR.1	can be	2.0
11.	CONT.SUGG.TR.1	found	2.8
12.	CONT.SUGG.TR.1	in all	3.2
13.	CONT.SUGG.TR.1	double	4.3
14.	COMM.	em(r)	17.3
15.	COMM.	I think I shall write cos I can't remember what it says on the box of the toaster that I once bought in England	...
16.	RPT.SUGG.TR.	differences in the degree of toasting can be found in all double-size toasters	...
17.	COMM.	I shall call it double-size and not double-slit or slot because that sounds very peculiar	...
18.	RPT.SUGG.TR.1	differences in the degree of toasting can be found in all double-size toasters	1.4
19.	CONT.SUGG.TR.1	when	1.6
20.	CONT.SUGG.TR.1	only	1.0
21.	CONT.SUGG.TR.1	one	1.3
22.	CONT.SUGG.TR.1	slice of bread is inserted	2.3
23.	COMM.	just check the German again	1.0
24.	RPT.STXT	wie bei allen Doppelschlitz-Toastern kann es beim Toasten von nur einer Scheibe Unterschiede in der Bräunung beider Seiten geben	...
25.	COMM.	yeh that's enough	1.0
			....

(iv)   TRANSLATION UNIT 16

    ST: Sie sollten daher beim Toasten von nur einer Scheibe die
           nächstniedrigere Einstellung der Bräunung wählen

    MT: You were to therefore select the one setting lower of the
           browning when the toasting only a slice

TU 16 contains exactly the same problem of "when the toasting..."

which, in TU 15, was converted to two contracted active "when..."

clauses, one passive clause and one infinitival construction,

introduced by an "if..." clause. In this TU the nominal structure

is dealt with in similar fashion by all four PPs.

PP I

PPV: Therefore, when toasting 1 slice of bread, you should select
       one setting lower for the degree of browning

PP II

PPV: When toasting only one slice of bread you should therefore
       use one browning setting lower

PP III

PPV: When toasting one slice only you should therefore select one
       setting lower

PP IV

PPV: Select one setting lower on the dial/knob when toasting a
       single slice of bread

PP I (page 98) converts the ungrammatical "when the toasting" to a

verbal "when..." clause (Step 11). This conversion simply requires

the omission of the definite article from the MT. PP II (page 99)

once again inaccurately reads the MT (Step 3), omitting the

definite article and thereby unconsciously correcting the

ungrammatical MT.   In Step 13 she begins to repeat the MT: "when
the to", and instantly corrects this, consciously now.   These two
steps are repeated and finally she expands the corrected MT to
"when toasting only one slice of bread" (Steps 19 and 20).

PP III (page 99) once again asks: "what's this about when the
toasting?" (Steps 9 and 10), and comments: "it's all wrong!"   Like
PP II, he begins his version with the "when..." clause.   PP IV
(page 100), unlike the other participants, but in keeping with the
structure of the MT, does not begin with the "when..." clause.
Instead he uses an imperative and assigns to the "when..." clause a
position at the end of the sentence.

PP I

PPV: Therefore, when toasting 1 slice of bread, you should select
     one setting lower for the degree of browning

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	sixteen	1.4
2.	RD.STXT	Sie sollten daher beim Toasten von nur einer Scheibe	---
3.	COMM.	hm(r)	1.8
4.	RD.MT	you were to therefore select the one setting lower of the browning when the toasting only a slice	2.6
5.	RPT.MT	you were to therefore select the one setting lower of the browning when the toasting only a slice	1.7
6.	COMM.	hm(r)	---
7.	RPT.STXT	Sie sollten daher beim Toasten von die nächstniedrige Einstellung	---
8.	COMM..	hm(r) okay	---
9.	SUGG.TR.1	therefore when	---
10.	COMM.	no	---
11.	SUGG.TR.2	when toasting only one slice of bread	---
12.	SUGG.TR.3	therefore you should choose	2.5
13.	CONT.SUGG.TR.3	the	---
14.	RPT.STXT	die nächstniedrige?	---
15.	COMM.	what did they say for that?	---
16.	RPT.MT	one setting lower	---
17.	COMM.	hm(a) that's good	6.5
18.	COMM.	okay	---
19.	RPT.SUGG.TR.2	when toasting only one slice of bread	1.1
20.	SUGG.TR.4	therefore when toasting	---
21.	RPT.SUGG.TR.4	therefore	1.6
22.	RPT.SUGG.TR.4	therefore when toasting	4.2
23.	RPT.SUGG.TR.4	therefore	---
24.	COMM.	comma	---
25.	CONT.SUGG.TR.4	when toasting one slice of bread	9.5
26.	CONT.SUGG.TR.4	you should select	5.4
27.	SUGG.TR.5	you should sh	---
28.	RPT.SUGG.TR.4	you should	1.5
29.	RPT.SUGG.TR.4	select	4.0
30.	RPT.MT	one setting lower	6.3
31.	COMM.	hm(a)	1.0
32.	RPT.MT	browning	---
33.	COMM.	hm(r)	---
34.	CONT.SUGG.TR.4	setting lower	2.0
35.	CONT.SUGG.TR.4	for browning	---
36.	COMM.	ach that sounds clumsy	---
37.	RPT.SUGG.TR.4	therefore when toasting one slice of bread you should select one setting lower	8.6
38.	RPT.SUGG.TR.4	one setting lower	2.7
39.	COMM.	hm(r)	7.7
40.	RPT.SUGG.TR.4	therefore when toasting one slice of bread you should select one setting lower	1.7
41.	CONT.SUGG.TR.4	for the degree of browning?	4.4
42.	COMM.	hm(a)	2.6
43.	RPT.SUGG.TR.4	for the degree of browning	4.4
44.	COMM.	one setting lower than what though?	8.2
45.	CONT.SUGG.TR.4	one setting lower than usual?	1.4
46.	RPT.SUGG.TR.4	therefore when toasting one slice of bread you sh	2.7
47.	RPT.SUGG.TR.4	one setting lower than usual?	3.9
48.	COMM.	oh I don't know what it means it's not very clear in the text	2.8

PP II

PPV: When toasting only one slice of bread you should therefore
      use one browning setting lower

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	sollten daher beim Toasten	2.1
2.	RD.MT	you were	...
3.	RD.MT	you were there to therefore select the one setting lower of the browning when toasting only a slice	2.6
4.	RD.MT	you were therefore select?	2.5
5.	COMM.	doesn't make sense	...
6.	RD.STXT	Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere Einstellung der Bräunung wählen	1.1
7.	SUGG.TR.1	you should	2.1
8.	CONT.SUGG.TR.1	therefore select	2.3
9.	CONT.SUGG.TR.1	the one setting	...
10.	RPT.SUGG.TR.1	one	...
11.	COMM.	you don't need the the there	5.8
12.	RPT.MT	one setting lower	3.5
13.	RPT.MT	when the to?	...
14.	SUGG.TR.1	when toasting only a slice	...
15.	RPT.MT	when the toasting	1.3
16.	RPT.SUGG.TR.1	when toasting only a slice	1.9
17.	RPT.SUGG.TR.1	you should therefore	1.4
18.	RPT.SUGG.TR.1	a sl	...
19.	RPT.SUGG.TR.1	when toasting only one slice	1.2
20.	CONT.SUGG.TR.1	of bread	...
21.	COMM.	you could say	13.5
22.	COMM.	em(r)	...
23.	RPT.SUGG.TR.1	you should therefore select one setting	1.1
24.	RPT.STXT	daher beim Toasten	1.5
25.	RPT.STXT	die nächstniedrigere Einstellung der Bräunung	1.6
26.	RPT.SUGG.TR.1	you should	3.4
27.	RPT.SUGG.TR.1	there	2.8
28.	RPT.SUGG.TR.1	select	2.3
29.	RPT.SUGG.TR.1	one	2.0
30.	RPT.SUGG.TR.1	setting lower of the browning?	1.8
30.	SUGG.TR.2	one browning setting lower	4.8
31.	COMM.	hm(a)	10.3

PP III

PPV: When toasting one slice only you should therefore select one
      setting lower

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	sixteen	
2.	RD.STXT	sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere Einstellung der Bräunung wählen	...
3.	RPT.STXT	Sie sollten	...
4.	RD.MT	you were to	...
5.	COMM.	ha(am) that's wrong of course!	...
6.	RD.MT	therefore	...
7.	RPT.STXT	daher	1.0
8.	RD.MT	select the one setting lower of the browning when the toasting only a slice	...
9.	COMM.	what's this about	...
10.	RPT.MT	when the toasting?	...
11.	COMM.	it's all wrong!	1.8
12.	COMM.	em(r) I would just just say	...
13.	SUGG.TR.1	you should therefore	7.2
14.	COMM.	no!	1.3
15.	COMM.	different	1.8
16.	SUGG.TR.2	when you toast one slice only	2.6
17.	COMM.	comma	1.1
18.	CONT.SUGG.TR.2	you should therefore	1.4
19.	CONT.SUGG.TR.2	select	1.6
20.	CONT.SUGG.TR.2	one	1.5
21.	CONT.SUGG.TR.2	setting	1.4
22.	CONT.SUGG.TR.2	lower	...
23.	COMM.	I think that would be obvious which setting we're talking about there only one thing you can set there	1.5
24.	COMM.	and instead of when you toast maybe	...
25.	SUGG.TR.3	when toasting one slice only	...
26.	COMM.	that sounds nicer	2.2

PP IV

PPV: Select one setting lower on the dial/knob when toasting a
single slice of bread

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number sixteen	...
2.	RD.STXT	Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere Einstellung der Bräunung wählen	...
3.	COMM.	oh that's clever! I didn't know that right although it's pretty sensible	1.7
4.	COMM.	eh(r) this translation is useless	1.7
5.	COMM.	well half-useless	1.3
6.	COMM.	em(r)	1.1
7.	COMM.	I think probably just straight	...
8.	SUGG.TR.1	select	3.3
9.	COMM.	em(r)	1.8
10.	RPT.SUGG.TR.1	select	1.4
11.	CONT.SUGG.TR.1	one	1.8
12.	CONT.SUGG.TR.1	setting	1.0
13.	CONT.SUGG.TR.1	lower	2.0
14.	CONT.SUGG.TR.1	on the	1.2
15.	CONT.SUGG.TR.1	dial or knob	...
16.	COMM.	that depends on the model	1.7
17.	RPT.SUGG.TR.1	select one setting lower on the dial or knob when	1.3
18.	CONT.SUGG.TR.1	toasting	1.7
19.	CONT.SUGG.TR.1	a single slice of	1.8
20.	CONT.SUGG.TR.1	bread	1.7
			....

(v)   TRANSLATION UNIT 18

> ST: Beim HT 55 mißt der eingebaute Sensor die Oberflächen-
>   temperatur des Brotes und steuert danach die Toastzeit
>
> MT: In the case of HT 55, the built-in sensor measures the
>   surface temperature of bread and controls the toasting
>   time after this

The method of resolving the "in the case of"/"bei" construction

which has been used in the versions of this TU produced by PPs I

and IV has not been employed in any other TU. In the MT and the

ST, "in the case of + NP"/"bei + NP" constituted prepositional

phrases and the subjects of the sentences were "der eingebaute

Sensor"/"the built-in sensor". However, PPs I and IV have shifted

the emphasis slightly by conferring subject status on "the HT 55

(model)". PPs II and II, on the other hand, chose to retain the

"in the case of" structure, one adding a definite article before

"HT 55". This TU is the only one in which the MT occurrence of "in

the case of" was evidently considered acceptable by one or more

PPs.

PP I

PPV: The HT 55 has a built-in sensor which measures the surface
       temperature of the bread and from this controls the toasting
       time/the length of the toasting process

PP IV

PPV: The HT 55 model has a built-in sensor which measures the
       surface temperature of the bread and regulates the toasting
       time

PP I (page 103) declares in Step 17 that "in the case of is wrong!"

and tentatively suggests "with". This is followed by a proposal

with "the HT 55" as the subject, "the built-in sensor" as the

object, and a relative clause to express the characteristics of the
latter. Step 21 expresses the PP's satisfaction with this proposed
post-edited version.

PP IV (pages 104-5) begins by accepting the MT "in the case of",
adding a definite article and "model" (Steps 9 and 10). He then
voices a suspicion that this may be a Germanic construction and in
Step 13 begins a new version with "the HT 55 model" as subject,
thus producing a sentence which is syntactically similar to PP I's.

PP I

PPV: The HT 55 has a built-in sensor which measures the surface
      temperature of the bread and from this controls the toasting
      time/the length of the toasting process

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	eighteen	4.6
2.	RD.STXT	beim HT five five	1.1
3.	RD.STXT	mißt der eingebaute Sensor die Oberflächentemperatur	2.4
		des Brotes und steuert danach die Toastzeit	1.9
4.	RD.MT	in the case of HT five five	1.3
5.	RD.MT	the built-in sensor	1.5
6.	RD.MT	measures	1.5
7.	RD.MT	the surface temperature	2.2
8.	RD.MT	of the bread	1.2
9.	RD.MT	and controls	1.1
10.	RD.MT	the toasting time after this	1.2
11.	RPT.MT	in the case of HT five five the built-in sensor	1.2
12.	RPT.MT	measures	1.3
13.	RPT.MT	the surface temperature of the bread and controls the taosting time after this	1.1
14.	COMM.	hm(r)	1.6
15.	COMM.	yeh let me see	---
16.	RPT.MT	in the case of	1.4
17.	COMM.	in the case of is wrong!	---
18.	SUGG.TR.1	with?	1.0
19.	SUGG.TR.2	the HT five five	1.7
20.	CONT.SUGG.TR.2	has a built-in sensor which measures	2.5
21.	COMM.	right	2.7
22.	RPT.SUGG.TR.2	the HT five five	2.4
23.	RPT.SUGG.TR.2	has a built-in	3.9
24.	RPT.SUGG.TR.2	sensor	4.2
25.	RPT.SUGG.TR.2	which measures	4.7
26.	CONT.SUGG.TR.2	the surface temperature	5.2
27.	CONT.SUGG.TR.2	of the bread	---
28.	COMM.	need a def need a definite article there	1.5
29.	RPT.MT	and controls the toasting time after this	3.1
30.	RPT.MT	and control	---
30.	CONT.SUGG.TR.2	and from this controls?	---
31.	RPT.SUGG.TR.2	and from this	---
32.	COMM.	am I using this controls	1.4
33.	CONT.COMM.	or in this way	2.0
34.	COMM.	hm(r) I don't know	---
35.	SUGG.TR.3	in this way	---
36.	RPT.SUGG.TR.2	and from this controls	8.3
37.	RPT.SUGG.TR.2	and from this	2.4
38.	RPT.SUGG.TR.2	controls	2.3
39.	CONT.SUGG.TR.2	the toasting time	2.4
40.	RPT.SUGG.TR.2	toasting time	2.9
41.	SUGG.TR.4	the duration of toasting?	8.6
42.	RPTU.SUGG.TR.2	the HT five five has a built-in sensor which measures the surface temperature of the bread and from this controls the toasting time	3.7
43.	RPT.SUGG.TR.2	toasting time	1.6
44.	SUGG.TR.5	the length of the toasting	1.5
45.	CONT.SUGG.TR.5	process	3.2
46.	COMM.	hm(a)	1.0

PP IV

PPV: The HT 55 model has a built-in sensor which measures the
       surface temperature of the bread and regulates the toasting
       time

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	in the case of HT fifty-five	1.0
2.	RD.STXT	beim HT fünfundfünfzig mißt der eingebaute Sensor die Oberflächen-temperatur des Brotes und steuert danach die Toastzeit	1.4
3.	COMM.	ah we know what it is now!	---
4.	RD.MT	in the case of HT fifty-five the built-in sensor measures the surface temperature of the bread and controls the toasting time after this	1.4
5.	COMM.	that's not bad is it for a machine! my God!	---
6.	RPT.MT	in the case of HT fifty-five	5.3
7.	COMM.	hm(r)	3.2
8.	COMM.	so I think I shall write here	---
9.	SUGG.TR.1	in the case	1.9
10.	CONT.SUGG.TR.1	of the HT fifty-five model	3.5
11.	COMM.	although I suspect	9.0
12.	COMM.	no I think this is German I think I shall say	1.1
13.	SUGG.TR.2	the HT fifty-five model	1.0
14.	CONT.SUGG.TR.2	has	2.6
15.	CONT.SUGG.TR.2	a built-in	5.4
16.	CONT.SUGG.TR.2	sensor	1.6
17.	RPT.SUGG.TR.2	has a built-in sensor	2.5
18.	CONT.SUGG.TR.2	which measures	5.3
19.	CONT.SUGG.TR.2	the	2.3
20.	CONT.SUGG.TR.2	sur-face temperature	6.1
21.	CONT.SUGG.TR.2	of	1.7
22.	CONT.SUGG.TR.2	the	2.9
23.	COMM.	hm(r)	1.5
24.	COMM.	I think it's sp bread'll be alright	---
25.	RPT.SUGG.TR.2	the HT fifty-five model has a built-in sensor which measures the surface temperature of the bread	1.3
26.	CONT.SUGG.TR.2	and	3.4
27.	COMM.	ah (groans)	1.4
28.	COMM.	steuern this damn word steuern!	---
29.	COMM.	em(r)	8.6
30.	COMM.	cos it's not really limits	---
30.	SUGG.TR.3	limits the toasting time	---
31.	RPT.MT	and	3.6
32.	RPT.MT	controls the toasting time?	---
33.	COMM.	I'm going to look up steuern in the dictionary because my memory is not doing me	1.0
34.	COMM.	so let's see which is the best one we've got here	2.3
35.	CONT.COMM.	for steuern I could probably in fact	1.6
36.	COMM.	hm(r) I think I shall use the German-English dictionary	1.6
37.	CONT.COMM	the Collins	1.7
38.	CONT.COMM.	just to see if I can find the word I'm looking for	1.6
39.	CONT.COMM.	to translate steuern which is on page	1.5
40.	COMM.	six two eight	1.3
41.	COMM.	six two eight steuern	1.9
42.	CONT.COMM.	and we discover that steuern begins on page six two eight (laughs) but in fact the actual verb is on six two nine	1.8
43.	COMM.	so	---
44.	RD.RB	steer navigate pilot fly run control manage	1.4
45.	CONT.RD.RB	take or follow steer control	---
46.	COMM.	in the sense of reg regulieren	---
47.	RPT.MT	which controls the toasting time?	---
48.	COMM.	oh well	1.1
49.	COMM.	let's just see what else there is	1.0
50.	RD.RB	head drive	2.1
51.	RD.RB	to be at the helm	---
52.	COMM.	oh Lord above!	1.3
53.	COMM.	that's all so that's useless	2.1
54.	COMM.	oh (sighs)	---
55.	RPT.SUGG.TR.2	the HT fifty-five model has a built-in sensor which measures the surface temperature	1.0

56.	RPT.SUGG.TR.2	of the bread	1.0
57.	CONT.SUGG.TR.2	and	4.0
58.	CONT.SUGG.TR.2	controls the toasting time	3.2
59.	SUGG.TR.4	regulates!	1.6
60.	RPT.SUGG.TR.2	which measures the surface temperature of the bread	1.1
61.	RPT.SUGG.TR.4	and regulates	---
62.	COMM.	I prefer regulates which wasn't in the dictionary	1.2
63.	COMM.	it just said control	---
64.	RPT.SUGG.TR.4	and regulates the	1.3
65.	CONT.SUGG.TR.4	toasting	1.2
66.	CONT.SUGG.TR.4	time	2.7
67.	COMM.	for a joke I shall look up regulate and see if it's in this dictionary at all as steuern	4.3
68.	CONT.COMM.	to check back the other way a well-known translator trick	1.4
69.	COMM.	regulate here we are on page five four one in the same dictionary	1.2
70.	COMM.	and regulate says	1.1
71.	COMM.	regulate says	1.1
72.	COMM	in the sense of control	---
73.	RD.RB	regulieren	1.2
74.	RD.RB	flow expenditure traffic lifestyle	1.4
75.	RD.RB	these things happen in even the best-regulated families!	1.6
76.	RD.RB	machine or mechanism regulieren clock richtig stellen	---
77.	COMM.	so obviously possible but not sort of	1.0
78.	COMM.	very obvious	2.0
79.	COMM.	still I prefer that	---
80.	RPT.SUGG.TR.4	and regulates the toasting time	1.9

(vi)   TRANSLATION UNIT 20

ST: Bei gleicher Brotsorte sorgt der Toaster für
      gleichbleibende Bräunung, gleich ob das Brot frisch,
      älter oder gefroren ist

MT: In the case of same bread sort, the toaster provides soon
      whether the bread is fresh for invariable browning, older
      or frozen ist

Here, three PPs changed "in the case of" to a subordinate clause,

introduced by "when" (PPs I and III), and by "if" (PP IV). PP II

resolved this problem by using a different preposition ("for"), and

therefore without deviating from the nominal construction of the

MT.

PP I

PPV: When the same type of bread is being used, regardless of
      whether it is fresh, not so fresh or frozen, the toaster
      will try to obtain the same degree of browning

PP III

PPV: When the same kind of bread is used, the toaster makes sure
      that the colour is the same whether the bread is fresh,
      slightly older or deep-frozen

PP IV

PPV: If you use the same sort of bread (daily) it will be toasted
      the same whether it is fresh, a couple of days old or out of
      the deep freeze

PP I's first reaction to the less than coherent MT is Step 3:

"yuck!" (page 108). Step 7 registers her understanding of the

ST/MT and Step 8 sees the beginning of a translation suggestion, an

"if..." clause. This is repeated in Step 20 and the second part of

the TU, the main clause, causes some difficulty. (The comment in

Step 20 is an indication of this: "how am I gonna say this?")

This is followed by a "when..." clause (in Step 33), with exactly the same form as the previous "if..." clause, namely a progressive passive. Step 34 ("okay") is a comment possibly expressing satisfaction with the new suggestion, but this is followed by a wavering between "when" and "if", an issue which is resolved in Step 37 where "when" is adopted.

PP III (page 109) does not hesitate in using a "when..." clause introduced first in Step 8 and then modified in Step 9 to "when the same kind of bread is used". PP IV (page 109) begins his translation suggestion in Step 4 with "if you" and gradually expands this to form a complete active subordinate clause: "if you use the same sort of bread" (Step 9).

PP I

PPV: When the same type of bread is being used, regardless of
whether it is fresh, not so fresh or frozen, the toaster
will try to obtain the same degree of browning

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	bei gleicher Brotsorte sorgt der Toaster für Bräunung gleich ob das Brot frisch älter oder gefroren ist	---
2.	RD.MT	in the case of s of the of same bread sort the toaster provides soon whether the bread is fresh for invariable browning older or frozen ist	---
3.	COMM.	yuck!	1.9
4.	COMM.	hm(r)	6.1
5.	RPT.MT	in the case of same bread sorts	1.7
6.	RPT.STXT	sorgt der Toaster für gleichbleibende Bräunung	2.3
7.	COMM.	oh I see!	1.0
8.	SUGG.TR.1	if the same type of bread is being used the toaster	1.5
9.	RPT.SUGG.TR.1	the toaster	2.9
10.	COMM.	puh!	---
11.	CONT.SUGG.TR.1	takes the same degree of browning	1.4
12.	CONT.SUGG.TR.1	regardless of whether	1.0
13.	CONT.SUGG.TR.1	the bread is fresh	2.2
14.	RPT.STXT	älter	1.3
15.	COMM.	hm(r)	---
16.	RPT.STXT	älter?	2.5
17.	CONT.SUGG.TR.1	not so fresh or frozen	14.6
18.	RPT.SUGG.TR.1	if	6.5
19.	RPT.MT	in the case of the same bread	---
20.	RPT.SUGG.TR.1	if the same type of bread is being used	3.2
21.	RPT.SUGG.TR.1	the toaster	1.4
22.	COMM.	hm(r) that sentence	---
23.	RPT.MT	the toaster provides	9.9
24.	RPT.MT	the toaster	---
25.	COMM.	(sighs)	4.7
26.	RPT.SUGG.TR.1	if the same type of bread is being used regardless of whether it is fresh not so fresh or frozen the toaster	3.4
27.	SUGG.TR.2	the toaster tries to	4.9
28.	COMM.	hm(r)	6.6
29.	RPT.SUGG.TR.1	if the same type of bread is being used	2.5
30.	RPT.SUGG.TR.1	if the same type of bread is being used the toaster	2.2
30.	RPT.MT	provides	---
31.	COMM.	(sighs)	2.5
32.	COMM.	how am I gonna say this?	8.2
33.	SUGG.TR.3	when the same type of bread is being used	3.8
34.	COMM.	okay	1.8
35.	COMM.	when or if?	6.2
36.	RPT.SUGG.TR.1	if	---
37.	RPT.SUGG.TR.3	when the same type of bread is being used	7.3
38.	RPT.SUGG.TR.1	regardless	11.3
39.	RPT.SUGG.TR.1	of whether it is	1.9
40.	RPT.SUGG.TR.1	fresh	1.8
41.	RPT.SUGG.TR.1	not so fresh	4.3
42.	RPT.SUGG.TR.1	frozen the toaster	2.9
43.	SUGG.TR.4	will try	3.1
44.	CONT.SUGG.TR.4	to obtain	1.7
45.	CONT.SUGG.TR.4	the same degree of browning	4.0
46.	RPT.SUGG.TR.4	the same degree	1.9
47.	RPT.SUGG.TR.4	of browning	6.0
48.	COMM.	yeh(r)	3.3
49.	COMM.	maybe I should say	---
50.	SUGG.TR.5	fresh not so fresh frozen bread at the same time	2.4
51.	RPT.SUGG.TR.4	is being used the toaster will try to obtain the same degree of browning	8.0
52.	COMM.	hm(r)	1.6
53.	COMM.	changing the sense there	1.8
54.	COMM.	(sighs)	5.3
55.	RPT.SUGG.TR.3	when the same type of bread is being used	1.5
56.	COMM.	I think that's okay I don't think I've changed it	2.8

....

PP III

PPV: When the same kind of bread is used, the toaster makes sure
     that the colour is the same whether the bread is fresh,
     slightly older or deep-frozen

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty	...
2.	RD.STXT	bei gleicher Brotsorte	---
3.	RD.MT	in the case of same bread sort	---
4.	COMM.	hahaha(am)	1.6
5.	COMM.	em(r)	1.5
6.	RD.STXT	sorgt der Toaster gleichbleibende Bräunung frisch älter oder gefroren ist	1.7
7.	COMM.	alright	2.1
8.	SUGG.TR.1	when the same bread sort is	...
9.	SUGG.TR.2	when the same kind of bread is used	3.0
10.	SUGG.TR.3	same type of bread	...
11.	COMM.	or	...
12.	RPT.SUGG.TR.2	same kind of bread is used	2.9
13.	CONT.SUGG.TR.2	the	3.1
14.	RPT.MT	toaster provides soon whether the bread is fresh	...
15.	COMM.	hmhm(am)	...
16.	RPT.MT	for invariable browning	...
17.	COMM.	they've even split provides for invariable browning up in the middle!	2.1
18.	COMM.	well I would say	---
19.	CONT.SUGG.TR.2	the toaster	1.9
20.	CONT.SUGG.TR.2	makes	1.4
21.	CONT.SUGG.TR.2	sure	2.1
22.	CONT.SUGG.TR.2	that the	1.3
23.	CONT.SUGG.TR.2	colour is the same	3.1
24.	CONT.SUGG.TR.2	whether	4.8
25.	CONT.SUGG.TR.2	the bread is	2.4
26.	CONT.SUGG.TR.2	fresh slightly	2.3
27.	CONT.SUGG.TR.2	older	1.4
28.	CONT.SUGG.TR.2	or	---
29.	COMM.	and of course we wouldn't just say frozen we would say deep-frozen	6.5
30.	COMM.	alright	1.4

PP IV

PPV: If you use the same sort of bread (daily) it will be toasted
     the same whether it is fresh, a couple of days old or out of
     the deep freeze

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number twenty	6.1
2.	RD.STXT	bei gleicher Brotsorte sorgt der Toaster für gleichbleibende Bräunung gleich ob das Brot frisch älter oder gefroren ist	11.5
3.	COMM.	oh I see!	1.8
4.	SUGG.TR.1	if you	1.9
5.	CONT.SUGG.TR.1	use	---
6.	RPT.SUGG.TR.1	if you	2.3
7.	CONT.SUGG.TR.1	if you use the same	2.5
8.	RPT.SUGG.TR.1	if you	2.5
9.	RPT.SUGG.TR.1	if you use the same	3.1
10.	CONT.SUGG.TR.1	sort of bread	3.1
11.	COMM.	I might even insert the word daily here it sort of makes in sensible but I'll put it in sort of	1.0
12.	CONT.COMM.	soft brackets	...
13.	RPT.SUGG.TR.1	if you use the same sort of bread daily	3.1
14.	COMM.	em(r)	9.4
15.	CONT.SUGG.TR.1	if you use the same sort of bread daily it will be	3.5
16.	CONT.SUGG.TR.1	toasted the same	1.5
17.	CONT.SUGG.TR.1	whether	5.2
18.	COMM.	em(r)	1.3
19.	CONT.SUGG.TR.1	whether it is fresh	6.9
20.	COMM.	hm(r)	1.8
21.	CONT.SUGG.TR.1	a couple of days old	1.3
22.	RPT.SUGG.TR.1	whether it is fresh a couple of days old	1.1
23.	CONT.SUGG.TR.1	or	2.7
24.	COMM.	em(r)	...
25.	CONT.SUGG.TR.1	out of the deep freeze	7.9

(vii)   TRANSLATION UNIT 25

ST: Bei Verwendung des Brötchenaufsatzes schaltet der Toaster
     unabhängig vom Regler automatisch auf eine Festzeit um

MT: The toaster changes over independently of the controller
     during use of the grid for rolls automatically to a fixed
     time

Here, METAL has not produced the usual "in the case of". Instead,
it has translated "bei Verwendung" as "during use". However, all
four PPs decided to introduce a "when..." subordinate clause to
render this in their versions.

PP I

PPV: When this grid for bread rolls is being used the toaster
      decides on a toasting time, independent of the regulator

PP II

PPV: When you are using the grid for the rolls the toaster
      automatically changes over independent of the controller to a
      fixed time

PP III

PPV: When using the fitting for toasting rolls the toaster
      automatically switches to a fixed time/standard time
      independently of the controller/setting of the controller

PP IV

PPV: When the grid for rolls is in position the toaster
      automatically switches over from sensor operation to a fixed
      toasting time

PP I (page 112) introduces a "when..." clause in Step 7, and his
initial version is a contracted active form which is subsequently
converted to a progressive passive form in Step 12. PP II (page
113) begins her version with a "when..." clause in Step 21 and

continues it in Steps 22 and 23. This is an active clause with "you" as the subject.

PP III (page 114), in Step 5, comments that the "whole order of words is wrong here", and in Step 6 begins the TU with a "when..." subordinate clause. PP IV (page 115) obviously comes to a decision similar to PP III's concerning reordering of the TU. He chooses to begin the TU with "during use of". However, he expresses doubt about this in Step 9: "maybe I wouldn't say that at all but still", and, having failed to justify his decision sufficiently and obviously feeling unduly influenced by the MT, he elects to discard this version in Step 10 where he says "no I wouldn't say that at all that's rubbish". As a result of this he introduces a "when..." subordinate clause in Steps 11 to 13.

PP I

PPV: When this grid for bread rolls is being used the toaster
decides on a toasting time, independent of the regulator

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty-five	2.3
2.	RD.STXT	bei Verwendung des Brötchenaufsatzes schaltet der Toaster unabhängig vom Regler automatisch auf eine Festzeit um	---
3.	RD.MT	the toaster changes over independently	---
4.	COMM.	(clears throat)	---
5.	RD.MT	of the controller during use of the grid for rolls automatically	1.3
6.	RPT.STXT	bei Verwendung	---
7.	SUGG.TR.1	when using the	1.7
8.	CONT.SUGG.TR.1	bread roll grid	---
9.	COMM.	ah!	---
10.	RPT.STXT	schaltet der Toaster unabhängig vom Regler	3.1
11.	RPT.STXT	automatisch auf	3.9
12.	SUGG.TR.2	when the grid for rolls are being used the toaster	6.5
13.	CONT.SUGG.TR.2	decides independently	1.3
14.	RPT.SUGG.TR.2	when	3.2
15.	RPT.SUGG.TR.2	the grid	1.7
16.	SUGG.TR.3	when this grid	1.5
17.	COMM.	connect back to the last sentence	---
18.	CONT.SUGG.TR.3	when this grid for rolls	4.1
19.	CONT.SUGG.TR.3	is being used	2.9
20.	CONT.SUGG.TR.3	the toaster	2.6
21.	CONT.SUGG.TR.3	decides independent?	2.4
22.	COMM.	decides independently or independent?	3.2
23.	RPT.SUGG.TR.3	when this grid for bread rolls is being used the toaster decides	1.4
24.	SUGG.TR.4	independently	---
25.	RPT.SUGG.TR.3	independent	3.5
26.	RPT.SUGG.TR.3	when this grid for bread rolls is being used the toaster	2.1
27.	RPT.SUGG.TR.4	decides independently?	1.5
28.	SUGG.TR.5	decides on the toasting time independent	1.4
29.	RPT.SUGG.TR.5	independent	1.5
30.	RPT.SUGG.TR.5	dependent	1.6
31.	RPT.SUGG.TR.5	pendent	2.3
32.	CONT.SUGG.TR.5	independent of	6.8
33.	CONT.SUGG.TR.5	the regulator	3.5
34.	RPT.SUGG.TR.5	the regulator	2.2
35.	RPT.SUGG.TR.3	when this grid for bread	---
36.	RPT.SUGG.TR.3	bread rolls is being used the toaster decides on the toasting time	1.8
37.	RPT.SUGG.TR.5	independent of the regulator	14.1
38.	COMM.	ah dear!	1.5
39.	RPT.SUGG.TR.3	when this grid for bread rolls is being used the toaster decides on the toasting time comma independent of the regulator	3.2
40.	COMM.	be more clear if I put in a comma but	1.0
41.	RPT.SUGG.TR.3	when this grid for bread rolls	2.6
42.	RPT.SUGG.TR.3	toaster	5.8
43.	RPT.SUGG.TR.3	the toaster decides on the toasting time	8.9
44.	COMM.	hm(r)	3.3
45.	COMM.	oh it'll do!	---

PP II

PPV: When you are using the grid for the rolls the toaster
      automatically changes over independent of the controller to a
      fixed time

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	the toaster changes over independently of the controller during use of the grid for rolls	2.2
2.	RD.MT	automatically to a fixed time	3.6
3.	RD.STXT	bei Verwendung des Brötchenaufsatzes	7.7
4.	RPT.MT	the toaster changes over	---
5.	RD.STXT	der Toaster	1.1
6.	RPT.MT	the toaster changes over	2.4
7.	SUGG.TR.1	automatically changes over	19.4
8.	RPT.SUGG.TR.1	toaster automatically changes over	4.2
9.	RD.STXT	unabhängig	1.5
10.	RPT.STXT	unab	---
11.	COMM.	oh!	2.7
12.	COMM.	no	2.4
13.	COMM.	that's wrong	---
14.	SUGG.TR.2	the toaster changes over independently of the controller	3.9
15.	RPT.MT	during use of the grid for rolls	4.6
16.	RPT.SUGG.TR.1	automatically changes over to	1.0
17.	CONT.SUGG.TR.1	a fixed	5.1
18.	RD.STXT	auf eine Festzeit	4.3
19.	CONT.SUGG.TR.1	toaster automatically changes over to a fixed time	5.7
20.	COMM.	no	1.2
21.	SUGG.TR.3	when	1.3
22.	CONT.SUGG.TR.3	you are using	4.9
23.	CONT.SUGG.TR.3	the grid for the rolls	13.5
24.	CONT.SUGG.TR.3	the toaster automatically changes over to a fixed time	5.8
25.	CONT.SUGG.TR.3	independent	4.0
26.	SUGG.TR.4	independently of the controller?	10.9
27.	SUGG.TR.5	without the	4.8
28.	RPT.SUGG.TR.3	to a fixed time	7.1
29.	RPT.SUGG.TR.4	independently of the controller	3.8
30.	RPT.SUGG.TR.4	independently	5.1
31.	RPT.SUGG.TR.3	independent from the	2.0
32.	RPT.SUGG.TR.3	changes over independent	4.7
33.	CONT.SUGG.TR.3	from the controller	5.0
34.	COMM.	put that up there	---
35.	RPT.SUGG.TR.3	changes over independent from the controller to a fixed time	9.9

....

PP III

PPV: When using the fitting for toasting rolls the toaster
      automatically switches to a fixed time/standard time
      independently of the controller/setting of the controller

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	alright	---
2.	RD.STXT	bei Verwendung des Brötchenaufsatzes	2.4
3.		schaltet der Toaster unabhängig vom Regler automatisch auf eine Festzeit um	---
4.	RD.MT	the toaster changes over independently of the controller during use of the grid for rolls automatically to a fixed time	---
5.	COMM.	no the whole order of words is wrong here I would say	1.5
6.	SUGG.TR.1	when using	3.6
7.	CONT.SUGG.TR.1	a fitting for toasting rolls	8.6
8.	CONT.SUGG.TR.1	rolls	2.9
9.	CONT.SUGG.TR.1	the toaster	6.5
10.	CONT.SUGG.TR.1	automatically	2.7
11.	RPT.MT	changes over?	---
12.	COMM.	no!	---
13.	RPT.SUGG.TR.1	automatically	1.5
14.	CONT.SUGG.TR.1	switches to	1.7
15.	CONT.SUGG.TR.1	a fixed	4.6
16.	CONT.SUGG.TR.1	time	1.1
17.	COMM.	perhaps also	---
18.	CONT.SUGG.TR.1	to a standard time	3.4
19.	RPT.SUGG.TR.1	automatically switches to a fixed time	1.2
20.	RPT.SUGG.TR.1	standard time	1.0
21.	RPT.STXT	unabhängig vom Regler	---
22.	COMM.	I think if it's automatically then it's obvious that it has nothing to do with the controller	1.7
23.	CONT.COMM.	but I would em(r)	1.8
24.	RPT.SUGG.TR.1	fixed time standard time	---
25.	COMM.	alright we could put	---
26.	CONT.SUGG.TR.1	independently	3.0
27.	CONT.SUGG.TR.1	of the controller	3.7
28.	COMM.	or perhaps	1.3
29.	CONT.SUGG.TR.1	setting of the controller	1.9
30.	SUGG.TR.2	of the control	---
31.	RPT.SUGG.TR.1	of the controller	---
32.	RPT.SUGG.TR.1	controller	---
33.	COMM.	hm(r)	2.3

PP IV

PPV: When the grid for rolls is in position the toaster
      automatically switches over from sensor operation to a fixed
      toasting time

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty-five	---
2.	RD.STXT	bei Verwendung des Brötchenaufsatzes schaltet der Toaster unabhängig vom Regler automatisch auf eine Festzeit um	1.1
3.	COMM.	aho(s)!	3.0
4.	COMM.	em(r)	4.7
5.	RD.MT	the toaster changes over independent	3.7
6.	COMM.	no I think I'd begin with	---
7.	SUGG.TR.1	during use of	1.0
8.	RPT.SUGG.TR.1	during the use of	2.1
9.	COMM.	maybe I wouldn't say that at all but still	3.7
10.	COMM.	no I wouldn't say that at all that's rubbish	---
11.	SUGG.TR.2	when the	2.8
12.	CONT.SUGG.TR.2	grid	1.9
13.	CONT.SUGG.TR.2	for rolls	3.3
14.	COMM.	em(r)	1.4
15.	RPT.SUGG.TR.2	when the grid for rolls	3.4
16.	RPT.SUGG.TR.2	when the grid for rolls	2.6
17.	COMM.	so number twenty-five	1.7
18.	COMM.	ach ja!	---
19.	RPT.SUGG.TR.2	when the grid for rolls	1.3
20.	COMM.	eh(r) I did have some word I was thinking about mounted or clipped on	1.0
21.	RPT.SUGG.TR2	when the grid for rolls	1.9
22.	COMM.	em(r)	2.3
23.	COMM.	eh(r)	5.3
24.	RPT.SUGG.TR.2	when the grid for rolls	---
25.	COMM.	I did have a good word for that at the back of my head somewhere	
26.	RPT.SUGG.TR.2	when the grid for rolls	3.8
27.	COMM.	hm(r)	20.1
28.	CONT.SUGG.TR.2	is in position?	3.8
29.	RPT.SUGG.TR.2	when the grid for rolls is in position	---
30.	COMM.	I think that's probably	1.4
31.	CONT.COMM.	better	1.1
32.	RPT.SUGG.TR.2	when the grid for rolls is in position	1.6
33.	CONT.SUGG.TR.2	the comma	---
34.	CONT.SUGG.TR.2	the toaster	1.9
35.	CONT.SUGG.TR.2	automatically	6.4
36.	COMM.	em(r)	8.6
37.	CONT.SUGG.TR.2	automatically switches over	2.7
38.	CONT.SUGG.TR.2	from	4.2
39.	CONT.SUGG.TR.2	sensor	1.4
40.	CONT.SUGG.TR.2	operation	2.3
41.	CONT.SUGG.TR.2	to	1.3
42.	CONT.SUGG.TR.2	a fixed	2.4
43.	CONT.SUGG.TR.2	toasting	3.0
44.	CONT.SUGG.TR.2	time	1.3
45.	COMM.	(sighs)	---

"VOR + NP"

(i)   TRANSLATION UNIT 6(i)

    ST: Schalten Sie den Toaster vor dem Erstgebrauch durch
         Herunterdrücken der Lifttaste zunächst einige Male ohne
         Brot bei geöffnetem Fenster ein

    MT: Pre-connect you the toaster before the primary use
         through pressing down lift key at first some times without
         bread in the case of opened window ein

Brinkmann discusses the "recent" (writing in 1962) realisation of

the historic and systematic significance of nominal formulations in

German and the growing tendency:

> "...Sätze einfacher Grundstruktur zu bilden, die eine Fülle
> nominaler Glieder enthalten. Solche Sätze werden in ihrer
> Kapazität nicht durch verbale Prägungen erhöht, die zu einem
> Satzgefüge führen (also zu Sätzen mit mehrfacher
> Personalform), sondern dadurch, daß mögliche Prädikationen
> durch substantivische oder adjektivische Gruppen repräsentiert
> werden" [7].

This is certainly the case in TU 6. The "Grundstruktur" of the ST

is "Schalten Sie den Toaster ein", a simple sentence with subject,

verb and object, but through the addition of nominalised and

adjectival prepositional phrases ("vor dem Erstgebrauch", "durch

Herunterdrücken der Lifttaste", "ohne Brot" and "bei geöffnetem

Fenster"), its informational value is augmented.

The length of this TU in the ST — and hence also in the MT — and

the concentration of nominal forms within one TU leads to a rather

unacceptable English sentence. This sentence is, perhaps arguably,

comprehensible but is stylistically catastrophic, a judgement which

is shared by PP IV and echoed in his exclamations of Step 4: " oh

God! sounds like Monty Python", and Step 8: "this is hopeless

isn't it?"

TU 6 contains three prepositional phrases which were converted by

some/all of the participants to verbal ones;   (i) "before the

primary use", (ii) "through pressing down" and (iii) "without

bread".   The first is of relevance here.   6(ii) and 6(iii) will be

discussed at a later stage.

PP I

PPV: Before using the toaster for the first time, switch it on by
       pressing the button marked lift. Use the toaster a few
       times without actually putting in bread. This must be done
       in a room with the window open

PP II

PPV: Before using the toaster for the first time switch it on by
       pressing down the lift key. Do this at first a few times
       beside an open window without using bread

PP III

PPV: Before using the toaster for the first time switch on the
       empty toaster a few times with the toaster window open

PP IV

PPV: Before use the toaster should be put into action several
       times without any bread in the slots and after having opened
       a nearby window

PP I (page 119) repeats the ST "vor dem Erstgebrauch" in Step 24

and in Step 26 introduces the gerundial "before first using". This

is then modified in Step 28 to "before using the toaster for the

first time". This "before the primary use" does not seem to pose a

problem and the PP seems to realise very quickly that this could,

and perhaps would be expressed verbally in English. Greenwood

quotes a similar example:

    - "vor dem Vertrieb oder der erstmaligen Verwendung...

der Meßgeräte
- before measuring instruments are placed on the market
  or used for the first time
- before/prior to the marketing or first use of the
  measuring instruments" [8].

The first English version is the one which figured in the official

text and the second is the alternative version retaining the

nominalised forms of the original German. He comments that the

translation using nouns seems "quite acceptable" but involves a

minor shift of emphasis — if nouns are used emphasis is on the

measuring instruments, and not the notion that this use/marketing

is the first one. In view of this, it would seem that the version

produced by PP I places more emphasis on "for the first time".

PP II (page 120) introduces a "before..." subordinate clause

("before using it") in Steps 12 and 13. This is consolidated in

Step 27 with a more complete clause: "before using the toaster for

the first time". PP III (page 121), when reading the MT, comments

on and corrects it section by section. In Step 8 he reads the MT

"before the primary use", and the comment "no" (Step 9) is

immediately followed by a suggested gerundial clause: "before

using it for the first time".

PP IV (page 122) processes TU 6 in a different manner to the other

PPs. Unlike PPs I, II, and III he does not convert the nominal

"before the primary use" to a verbal construction. Instead he

modifies the phrase to "before use" (Steps 13 and 14), in the

belief that this constitutes "the standard English collocation for

this sort of situation" (Step 15).

PP I

PPV: Before using the toaster for the first time, switch it on by
      pressing the button marked lift. Use the toaster a few
      times without actually putting in bread. This must be done
      in a room with the window open.

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number six	- - -
2.	RD.STXT	schalten Sie den Toaster	- - -
3.	COMM.	hm(r)	- - -
4.	COMM.	hmhm(a)	- - -
5.	COMM.	(clears throat)	- - -
6.	CONT.RD.STXT	zunächst einige Male ohne Brot bei geöfftem Fenster ein	1.2
7.	RD.MT	precorrec precorrect you	- - -
8.	COMM.	wrong	- - -
9.	CONT.RD.MT	the toaster before the primary use through pressing down	1.9
10.	CONT.RD.MT	the key	2.2
11.	CONT.RD.MT	at first some times without bread in the case of open window	1.0
12.	COMM.	hm(am)	3.9
13.	RPT.STXT	schalten Sie den Toaster	1.3
14.	RPT.MT	pre-connect you	- - -
15.	RPT.STXT	vor dem Erstgebrauch	2.6
16.	RPT.MT	pre-connect you the toaster before the primary use	6.4
17.	CONT.RPT.MT	through pressing down the lift key	2.9
18.	RPT.MT	pre-connect	3.3
19.	SUGG.TR.1	switch on	- - -
20.	COMM.	or	1.0
21.	COMM.	hm(r)	13.9
22.	SUGG.TR.2	put the toaster	1.7
23.	CONT.SUGG.TR.2	into operation	2.5
24.	RPT.STXT	vor dem Erstgebrauch	- - -
25.	COMM.	(sighs)	3.9
26.	CONT.SUGG.TR.2	before first using	2.5
27.	CONT.SUGG.TR.2	before first using the toaster	2.8
28.	SUGG.TR.3	before using the toaster for the first time	15.4
29.	RPT.SUGG.TR.3	before using toaster for the first time	11.4
30.	CONT.SUGG.TR.3	switch it on	2.1
31.	CONT.SUGG.TR.3	by pressing	5.3
32.	CONT.SUGG.TR.3	pressing the	1.0
33.	RPT.STXT	Lifttaste?	2.3
34.	RPT.MT	the lift key?	3.2
35.	COMM.	hm(r)	2.4
36.	CONT.RPT.MT	at first some times without bread in the case of open window	- - -
37.	RPT.STXT	zunächst einige Mal	4.2
38.	RPT.MT	at first some times without bread in the case of open windows	- - -
39.	RPT.MT	in the case of	- - -
40.	COMM.	that's wrong	1.0
41.	CONT.SUGG.TR.3	with the window open	2.0
42.	RPT.SUGG.TR.3	before using toaster for the first time switch it on by pressing the	2.3
43.	RPT.STXT	Lifttaste?	15.7
44.	RPT.MT	pre-connect you the toaster before	7.6
45.	RPT.STXT	zunächst einige Mal	4.6
46.	COMM.	then	9.7
47.	CONT.SUGG.TR.3	use the toaster a few times	10.5
48.	CONT.SUGG.TR.3	without actually	7.3
49.	CONT.SUGG.TR.3	putting in bread	1.2
50.	CONT.SUGG.TR.3	this must be done	7.7
51.	CONT.SUGG.TR.3	with the window open	1.0
52.	COMM.	(sighs)	4.4
53.	RPT.SUGG.TR.3	window open	2.2
54.	RPT.SUGG.TR.3	before using the toaster for the first time switch it on by pressing the	- - -
55.	RPT.STXT	Lifttaste	30.6
56.	RPT.STXT	Lifttaste	- - -
57.	COMM.	(sighs)	2.1
58.	RD.RB	liften to lift	3.5
59.	COMM.	lift or (? hoist)	- - -
60.	SUGG.TR.4	the lift button	2.9
61.	COMM.	hmhm(a)	2.8
62.	RPT.SUGG.TR.3	before using toaster for the first time switch it on by pressing the	10.4
63.	COMM.	hm(r)	- - -
64.	SUGG.TR.5	the button marked	2.0
65.	CONT.SUGG.TR.5	lift	9.0
66.	RPT.SUGG.TR.3	use the toaster a few times without actually putting in bread this must be done in a room	1.0
67.	CONT.SUGG.TR.3	with the open	1.0
68.	CONT.SUGG.TR.3	the window opened	1.3
69.	COMM.	(sighs)	5.7
			- - - -

PP II

PPV: Before using the toaster for the first time switch it on by
     pressing down the lift key. Do this at first a few times
     beside an open window without using bread.

STEP CATEGORY   UTTERANCE   PAUSE

Hauptlauf

1.	RD.STXT	schalten Sie den Toaster vor dem Erstgebrauch durch Herunterdrücken	1.6
2.	RD.MT	pre-connect you the toaster before the primary use?	1.7
3.	CONT.RD.MT	through pressing down lift key	---
4.	COMM.	ugh!	3.5
5.	CONT.RD.MT	at first some times without bread in the case of opened window	---
6.	COMM.	(laughs)	1.6
7.	COMM.	oh my God!	1.5
8.	COMM.	okay	---
9.	RPT.STXT	schalten Sie den Toaster	4.3
10.	RPT.MT	pre-connect you the toaster?	---
11.	RPT.STXT	vor dem Erst	3.1
12.	SUGG.TR.1	plug in the toaster before	2.8
13.	CONT.SUGG.TR.1	before using it	3.2
14.	RPT.STXT	durch Herunterdrücken der Lifttaste	1.6
15.	RPT.MT	through pressing down	---
16.	CONT.SUGG.TR.1	by pressing down	3.6
17.	CONT.SUGG.TR.1	the lift key	1.1
18.	COMM.	I don't know whether that's right I suppose	
19.	RD.STXT	zunächst einige Male ohne Brot	3.2
20.	RPT.MT	first some times without bread	1.3
21.	RD.STXT	bei offenem Fenster ein?	6.3
22.	RPT.STXT	bei offenem Fenster?	1.1
23.	RPT.MT	in the case of opened windows?	2.8
24.	COMM.	where's the window come into it?	1.3
25.	COMM.	hm(u)	---
26.	COMM.	okay	7.1
27.	SUGG.TR.2	before using the toaster for the first time	22.1
28.	CONT.SUGG.TR.2	switch	13.0
29.	CONT.SUGG.TR.2	switch it	1.0
30.	CONT.SUGG.TR.2	on by pressing down	5.8
31.	CONT.SUGG.TR.2	the lift	1.0
32.	CONT.SUGG.TR.2	key	8.0
33.	RPT.SUGG.TR.2	before using the toaster for the first time switch it on by pressing down the lift key	3.3
34.	RPT.MT	at first some times without bread in the case of opened window	11.9
35.	RPT.MT	at first some times	---
36.	COMM.	start a new sentence	---
37.	CONT.SUGG.TR.2	do this	5.8
38.	CONT.SUGG.TR.2	at first	2.0
39.	CONT.SUGG.TR.2	a few times	3.1
40.	CONT.SUGG.TR.2	without bread	5.2
41.	RPT.STXT	bei off geöffnetem Fenster	1.9
42.	RPT.MT	in the case of opened window?	2.3
43.	RPT.STXT	bei geöffnetem Fenster	---
44.	COMM.	or maybe it means	2.6
45.	CONT.SUGG.TR.2	beside an open window	1.8
46.	COMM.	doesn't make much sense either	1.4
47.	COMM.	em(r)	1.1
48.	COMM.	yeh	13.3

Nachlauf

1.	RPT.SUGG.TR.2	a few times without	1.4
2.	SUGG.TR.3	using bread beside an open window	5.2
3.	RPT.SUGG.TR.2	do this a few times	4.9
4.	COMM.	put that up there	---
5.	SUGG.TR.4	do this a few times beside an open window without using bread	6.3

....

PP III

PPV: Before using the toaster for the first time switch on the
      empty toaster a few times with the window open.

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number six	
2.	RD.STXT	schalten Sie den Toaster	2.4
3.	RD.MT	pre-connect you the toaster?	---
4.	COMM.	oh no!	1.3
5.	RD.STXT	schalten Sie den Toast Toaster zunächst vor dem Erstgebrauch	3.6
6.	RPT.MT	pre-connect you the toaster	---
7.	COMM.	well that's obvious that's just stupid	---
8.	CONT.RD.MT	before the primary use	---
9.	COMM.	no	---
10.	SUGG.TR.1	before using it for the first time	1.1
11.	CONT.RD.MT	through pressing down lift key	---
12.	COMM.	that would have to be	---
13.	CONT.SUGG.TR.1	by pressing down lift key	2.2
14.	COMM.	eh(r)	3.2
15.	COMM.	oh yeh and then it's	1.2
16.	COMM.	zunächst has been just hung on in English	---
17.	CONT.RD.MT	at first	---
18.	COMM.	and then	---
19.	CONT.RD.STXT	einige Male	---
20.	CONT.RD.MT	some times	1.2
21.	CONT.RD.MT	without bread in the case of open window	---
22.	COMM.	that's the silly translation of bei again	2.3
23.	COMM.	eh(r)	---
24.	COMM.	I would say	---
25.	COMM.	eh(r)	4.2
26.	COMM.	hm(r)	3.5
27.	SUGG.TR.2	before using the toaster for the first time	8.7
28.	COMM.	and comma	2.6
29.	COMM.	(sighs)	---
30.	COMM.	eh(r)	7.5
31.	COMM.	eh(r)	5.1
32.	CONT.SUGG.TR.2	switch on	2.8
33.	CONT.SUGG.TR.2	the	3.7
34.	RPT.SUGG.TR.2	switch	1.4
35.	COMM.	hm(r)	7.1
36.	CONT.SUGG.TR.2	switch on the toaster a	2.0
37.	CONT.SUGG.TR.2	few times	1.0
38.	CONT.SUGG.TR.2	without bread	2.2
39.	RPT.SUGG.TR.2	few times	2.1
40.	RPT.SUGG.TR.2	without	4.2
41.	COMM.	and oh!	---
42.	CONT.RD.STXT	bei geöffnetem Fenster	3.7
43.	CONT.SUGG.TR.2	a few times without bread and with the window open	1.5 / ---
44.	COMM.	(laughs)	---
45.	COMM.	open your bedroom window first	1.4
46.	COMM.	em(r)	---
47.	COMM.	(clears throat)	---
48.	COMM.	that sounds a bit funny but eh(r) I wouldn't know what else they would call Fenster	---
49.	RPT.SUGG.TR.2	before using the toaster for the first time switch on the toaster a few times without bread and with the window open	2.2
50.	COMM.	well I don't like that very much but never mind	---

Nachlauf

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	I think switch on the empty toaster a few times would sound nicer than without bread	---
2.	SUGG.TR.3	switch on the empty toaster a few times with the window	3.6
3.	CONT.SUGG.TR.3	open	4.6
4.	COMM.	what is this window they're talking about?	2.2
5.	COMM.	I think if we don't say em(r)	---
6.	SUGG.TR.4	toaster window	1.0
7.	CONT.SUGG.TR.4	open	---
8.	COMM.	then people are gonna think you have to open the kitchen window when you're doing it	1.2 / ----

PP IV

PPV: Before use the toaster should be put into action several
       times without any bread in the slots and after having opened
       a nearby window

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number six	1.1
2.	RD.STXT	schalten Sie den Toaster vor dem Erstgebrauch durch Herunterdrücken der Lifttaste drei zunächst einige Male ohne Brot bei geöffnetem Fenster ein	...
3.	COMM.	(laughs)	...
4.	COMM.	oh God! sounds like Monty Python right	...
5.	RD.MT	pre-connect	...
6.	COMM.	oh damn!	...
7.	CONT.RD.MT	primary use through pressing down lift key at first some times without bread in the case of opened window	...
8.	COMM.	this is hopeless isn't it? so	2.3
9.	COMM.	em(r)	...
10.	SUGG.TR.1	switch	...
11.	COMM.	no hold on hmhm(r) hmhm(r)	10.4
12.	COMM.	so this is all wrong in fact this se	1.0
13.	SUGG.TR.2	before	5.1
14.	CONT.SUGG.TR.2	use	...
15.	COMM.	that's the standard English collocation for this sort of situation	...
16.	RPT.SUGG.TR.2	before use	4.8
17.	COMM.	hm(r)	8.7
18.	COMM.	(tuts)	...
19.	COMM.	(sighs)	...
20.	COMM.	this is not going to help me very much and neither will the dictionaries because I can't think at the moment if there's a special name	1.3
21.	CONT.COMM.	for this sort of	1.8
22.	CONT.COMM.	lever on the toaster that you press down	1.9
23.	COMM.	hm(r) I think I shall say	---
24.	RPT.SUGG.TR.2	before use	21.8
25.	CONT.SUGG.TR.2	before use the toaster	2.3
26.	CONT.SUGG.TR.2	should	2.7
27.	CONT.SUGG.TR.2	be	3.1
28.	CONT.SUGG.TR.2	set?	1.0
29.	COMM.	no	---
30.	RPT.SUGG.TR.2	should be	---
31.	SUGG.TR.3	should be set	---
32.	SUGG.TR.4	should be put into action	---
33.	RPT.SUGG.TR.4	the toaster should be put into action	---
34.	COMM.	I prefer that	---
35.	RPT.SUGG.TR.4	the toaster should be put into action	5.8
36.	CONT.SUGG.TR.4	without	2.8
37.	CONT.SUGG.TR.4	any	2.1
38.	CONT.SUGG.TR.4	bread in the slots	1.2
39.	COMM.	I think I'd put that in	1.3
40.	COMM.	make it more sense	1.8
41.	RPT.SUGG.TR.4	before use the toaster should be put into action	4.1
42.	RPT.STXT	einige Male	4.3
43.	CONT.SUGG.TR.4	should be put into action several times	2.8
44.	CONT.SUGG.TR.4	without any bread in the slots	3.0
45.	CONT.SUGG.TR.4	and	1.0
46.	CONT.SUGG.TR.4	after	1.2
47.	CONT.SUGG.TR.4	having	3.5
48.	CONT.SUGG.TR.4	opened a	1.1
49.	CONT.SUGG.TR.4	nearby	1.8
50.	CONT.SUGG.TR.4	window	3.6
			....

(iii)   TRANSLATION UNIT 28

        ST: Ziehen Sie vor jeder Reinigung den Netzstecker

        MT: Pull the power plug before (in front of) every cleaning

"Before (every) cleaning" is the prepositional noun phrase in this

TU which is made verbal by the PPs. The versions produced by PPs I

and II are undeniably verbal but those of PPs III and IV are

gerundial and without an object and could therefore be either

nominal or verbal. However, on the basis of language usage norms,

I postulate that the versions in question are verbal.

PP I

PPV: Always plug out the toaster before cleaning it

PP II

PPV: Plug out the toaster every time before you clean it

PP III

PPV: Always pull out the plug/mains plug before cleaning

PP IV

PPV: Make sure that the toaster has been disconnected from the
      mains supply before cleaning

PP I (page 125) seems, at first, to suggest "before cleaning" (Step

6), but proceeds to expand this into a subordinate clause: "before

commencing to clean it" (Step 9). Finally she shortens this to

produce "before cleaning it", where "it" refers to "the toaster"

already figuring in the main part of the TU. PP II (page 125), in

the Hauptlauf, also suggests "before every cleaning" (Steps 14 and

15). However, upon reflection in the Nachlauf, this is changed to

an active subordinate clause: "before you clean it". PP III (page

126) in Steps 17 and 18 decides to use "before cleaning" in his

version. His final comment explains that, in his view, "every

cleaning" is not possible and that it is therefore necessary to

begin the TU with "always". This observation indicates that his

use of "before cleaning" is now verbal and hence the meaning of the

adjective "every" is now conveyed by an adverb "always". PP IV

(page 126) retains "before cleaning" in his version and here too, I

would conjecture that the use of the gerund is verbal rather than

nominal.

PP I

PPV: Always plug out the toaster before cleaning it

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty-eight	1.5
2.	RD.STXT	ziehen Sie vor jeder Reinigung den Netzstecker	---
3.	RD.MT	pull the power plug before	1.9
4.	RD.MT	before	1.7
5.	SUGG.TR.1	always plug out the toaster	1.9
6.	CONT.SUGG.TR.1	before cleaning	2.5
7.	RPT.SUGG.TR.1	always	3.8
8.	RPT.SUGG.TR.1	plug out the toaster	1.9
9.	SUGG.TR.2	before commencing to clean it	---
10.	SUGG.TR.3	before cleaning it	---
11.	RPT.SUGG.TR.1	always plug out the toaster before	1.3
12.	RPT.SUGG.TR.3	before cleaning it	---
13.	COMM.	hm(r) it's okay	1.5

PP II

PPV: Plug out the toaster every time before you clean it

STEP	CATEGORY	UTTERANCE	PAUSE

Hauptlauf

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	em(r)	---
2.	RD.MT	pull the power plug	1.3
3.	RD.MT	before in front of every cl	---
4.	COMM.	well it's before	4.8
5.	COMM.	would you say	---
6.	SUGG.TR.1	pull out the plug?	---
7.	COMM.	or	---
8.	SUGG.TR.2	pull out the toaster?	2.5
9.	RD.STXT	ziehen Sie vor jeder Reinigung den Netzstecker	5.5
10.	RPT.SUGG.TR.1	pull out	3.9
11.	COMM.	plug in	---
12.	SUGG.TR.3	plug out	3.3
13.	CONT.SUGG.TR.3	plug out the toaster	3.0
14.	CONT.SUGG.TR.3	before	1.3
15.	CONT.SUGG.TR.3	every cleaning	5.4

Nachlauf

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RPT.SUGG.TR.3	plug out the toaster before	1.5
2.	RPT.SUGG.TR.3	every cleaning	11.7
3.	RPT.SUGG.TR.3	every cleaning?	8.0
4.	SUGG.TR.4	every time	2.0
5.	CONT.SUGG.TR.4	before you clean it	3.6

PP III

PPV: Always pull out the plug/mains plug before cleaning

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty-eight	---
2.	RD.ST	ziehen Sie vor jeder Reinigung den Netzstecker	1.8
3.	RD.MT	pull the power plug	1.0
4.	CONT.RD.MT	before in front of every cleaning	---
5.	COMM.	ahah(u) that's the the you've got the temp there the local sense of the word vor here as well	---
6.	RPT.MT	pull the power plug	1.0
7.	COMM.	well	---
8.	SUGG.TR.1	pull out	---
9.	COMM.	and I wouldn't call it a power plug I'd call it	---
10.	CONT.SUGG.TR.1	pull out the	---
11.	COMM.	just the plug or maybe the mains plug	1.0
12.	COMM.	if I was trying to do it really British	1.5
13.	CONT.SUGG.TR.1	pull out the mains	1.9
14.	COMM.	ahah(u) and then I would put	---
15.	SUGG.TR.2	always pull out	2.1
16.	CONT.SUGG.TR.2	the mains plug	1.8
17.	CONT.SUGG.TR.2	before	1.5
18.	CONT.SUGG.TR.2	cleaning	---
19.	COMM.	because you couldn't really put every cleaning in English so you put always out on the front	1.5
			....

PP IV

PPV: Make sure that the toaster has been disconnected from the mains supply before cleaning

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number twenty-eight	2.2
2.	RD.ST	ziehen Sie vor jeder Reinigung den Netzstecker	1.1
3.	RD.MT	pull the power plug	1.0
4.	RD.MT	before every cleaning	3.5
5.	COMM.	eh(r) oh damn!	1.8
6.	COMM.	oh what do we say for that? oh!(groan)	3.7
7.	SUGG.TR.1	make sure	4.8
8.	CONT.SUGG.TR.1	that	1.4
9.	CONT.SUGG.TR.1	the	1.7
10.	CONT.SUGG.TR.1	toaster	2.9
11.	CONT.SUGG.TR.1	has been	2.1
12.	CONT.SUGG.TR.1	disconnected	1.8
13.	CONT.SUGG.TR.1	from the	1.0
14.	CONT.SUGG.TR.1	mains	2.7
15.	CONT.SUGG.TR.1	supply	2.1
16.	CONT.SUGG.TR.1	before	2.7
17.	CONT.SUGG.TR.1	cleaning	2.4
			....

"DURCH + NOUN PHRASE"

(i)   TRANSLATION UNIT 6(ii)

    ST: Schalten Sie den Toaster vor dem Erstgebrauch durch
           Herunterdrücken der Lifttaste zunächst einige Male ohne
           Brot bei geöffnetem Fenster ein

    MT: Pre-connect you the toaster before the primary use
           through pressing down lift key at first some times without
           bread in the case of opened window ein

PP I

PPV: Before using the toaster for the first time, switch it on by
      pressing the button marked lift. Use the toaster a few
      times without actually putting in bread. This must be done
      in a room with the window open

PP II

PPV: Before using the toaster for the first time switch it on by
      pressing down the lift key. Do this at first a few times
      beside an open window without using bread

PP III

PPV: Before using the toaster for the first time switch on the
      empty toaster a few times with the toaster window open

PP IV

PPV: Before use the toaster should be put into action several
      times without any bread in the slots and after having opened
      a nearby window

"Through pressing" has its origins in the substantivisation derived

from the verb "herunterdrücken" used with the preposition "durch".

The noun "Herunterdrücken" serves to condense information which, if

verbally rather than nominally expressed, would probably be too

long to feature, with inclusion of all the other information, in

this one TU. The English equivalent produced by METAL of this

nominalisation is a gerund. Therefore a noun-to-verb shift only
requires a change of preposition. PP I (see page 119) effects this
change in Step 31 and seems unaware that the form used in the MT is
actually a nominalised one.

In Step 16, PP II (page 120) converts "through pressing down" to
"by pressing down" with absolutely no deliberation. PP III's Step
17, "through pressing down lift key", is followed by the comment:
"that would have to be by pressing down", with no pause for
reflection (page 121). This verbal construction does not figure in
PP III's final written version of the text since he opts to use the
imperative "switch on the toaster", without reference to a lift
key. PP IV (page 122) also avoids the use of the "through pressing
down" or a corrected version by suggesting "should be put into
action" (Step 32).

(ii)   TRANSLATION UNIT 10

ST: Sie können den Toastvorgang durch Drücken der Stoptaste
      unterbrechen

MT: You can interrupt the toasting process through pressing
      stop key

The "through pressing stop key" ("durch Drücken der Stoptaste") in

this TU bears similarity to the "through pressing down lift key" of

TU 6. Those PPs who included this semantic component of TU 6 in

their versions (PPs I and II) substituted "by" for "through", thus

automatically making verbal this MT nominal construction. This TU

receives the same treatment, and all four participants effect the

same change.

PP I

PPV: You can stop the toasting process at any stage by pressing
      the stop button

PP II

PPV: You can interrupt the toasting process by pressing the stop
      key

PP III

PPV: You can interrupt toasting by pressing the stop button

PP IV

PPV: You can interrupt the toasting process by pressing the stop
      key

PP I (page 131) misreads the MT in Step 3, replacing "through" with

"by" and adding a definite article in front of "stop key", and

declares this misread MT to be fine. She then reads the MT with

the original preposition and comments "wrong preposition" (Step 6).

Therefore it is true to say that, similar to the change made in TU
6, the participant is not aware of changing a nominal construction
to a verbal one, but sees this purely in terms of an interchange of
prepositions.

The same change is made by PP II (page 131), whose first
modification of the MT is the addition of a definite article. In
Step 9 she then suggests "by pressing". PP III (page 132) once
again substitutes "toasting" for "the toasting process" and also
changes "through pressing" to "by pressing", commenting in Step 9
on the MT "through" being a Germanism, a direct translation of the
ST "durch".

PP IV (page 132) also misreads the MT (Step 3), inserting a
definite article where one should be but was lacking in the MT. He
then changes "through" to "by" in Step 5.

PP I

PPV: You can stop the toasting process at any stage by pressing
the stop button

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	okay number ten	1.5
2.	RD.STXT	Sie können den Toastvorgang durch	
		Drücken der Stoptaste unterbrechen	---
3.	RD.MT	you can interrupt the toasting process	
		by pressing the stop key	4.9
4.	COMM.	well that's fine	1.4
5.	RPT.MT	through pressing the stop key	---
6.	SUGG.TR.1	by pressing the stop key	1.0
7.	COMM.	wrong preposition	1.3
8.	RPT.MT	you can interrupt	2.7
9.	RPT.MT	you can interrupt?	---
10.	SUGG.TR.1	you can stop?	1.7
11.	CONT.SUGG.TR.1	you can stop the toasting process	2.7
12.	CONT.SUGG.TR.1	at any stage	1.7
13.	RPT.SUGG.TR.1	you can stop the toasting process	10.2
14.	CONT.SUGG.TR.1	at any stage	1.8
15.	CONT.SUGG.TR.1	by pressing	1.9
16.	CONT.SUGG.TR.1	the stop key	1.1
17.	COMM.	key again! I don't think key is the	
		right word	---
18.	SUGG.TR.2	stop button?	5.3

PP II

PPV: You can interrupt the toasting process by pressing the stop
key

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	okay	1.0
2.	RD.MT	you can interrupt the toasting process	
		through pressing stop key	2.9
3.	RPT.MT	you can interrupt the toasting	
		through pressing	2.2
4.	SUGG.TR.1	the stop key	---
5.	COMM.	you'd have to have a the	7.6
6.	COMM.	it's okay	12.1
7.	RPT.MT	through pressing	---
8.	COMM.	would that be	---
9.	SUGG.TR.1	by pressing	4.1
10.	CONT.SUGG.TR.1	the	1.7
11.	CONT.SUGG.TR.1	stop key	---
12.	COMM.	or	---
13.	SUGG.TR.2	stop button	6.2
14.	RPT.SUGG.TR.1	stop	1.2
15.	RPT.SUGG.TR.1	key	2.3
16.	RPT.SUGG.TR.2	button	1.0
17.	RPT.SUGG.TR.2	stop button	4.5
18.	COMM.	hm(a)	---
19.	RPT.SUGG.TR.1	stop key	1.7

PP III

PPV: You can interrupt toasting by pressing the stop button

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number ten	1.0
2.	RD.STXT	Sie können den Toastvorgang durch Drücken der Stoptaste unterbrechen	---
3.	RD.MT	you can interrupt the toasting	1.7
4.	CONT.RD.MT	process through pressing stop key	---
5.	COMM.	well just a few little differences I'd make there	2.0
6.	COMM.	eh(r)	5.5
7.	RPT.MT	you can interrupt	---
8.	COMM.	here again I'd just say you can interrupt toasting cos the toasting process sounds too big for me	1.2
9.	COMM.	and not through pressing but by pressing that's obviously a just a Germanism through durch	1.2
10.	SUGG.TR.1	by pressing the stop key	---
11.	COMM.	I would say	3.0
12.	RPT.SUGG.1	can interrupt the	---
13.	COMM.	yeh	---
14.	CONT.SUGG.TR.1	toasting by pressing the stop key in brackets one	1.9

PP IV

PPV: You can interrupt the toasting process by pressing the stop key

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number ten	---
2.	RD.STXT	Sie können den Toastvorgang durch Drücken der Stoptaste unterbrechen	1.9
3.	RD.MT	you can interrupt the toasting process through pressing the stop key	2.0
4.	COMM.	well that's okay except	2.5
5.	COMM.	change through to by	2.4
6.	SUGG.TR.1	you can interrupt the toasting process by pressing	1.2
7.	COMM.	yeh insert	6.1
8.	COMM.	insert the	9.0
9.	CONT.COMM.	before	1.8
10.	CONT.COMM.	stop	4.2

"FÜR + NOUN PHRASE"

(i)   TRANSLATION UNIT 29

    ST: Für die Reinigung des Gehäuses genügt ein feuchtes Tuch

    MT: A moist cloth suffices for the cleaning of the casing

"Cleaning" is once again the noun/gerund in question in this TU and

it is used in conjunction with the preposition "for" here. Three

PPs elected to convert the nominal form of the MT to a verbal

structure. PP IV substitutes "is sufficient" for "suffices" but

retains "for the cleaning of the casing" in his version.

PP I

PPV: The outside of the toaster may be cleaned simply by using a
      damp cloth

PP II

PPV: A damp cloth suffices to clean the casing

PP III

PPV: A moist cloth/damp cloth is sufficient for the cleaning of
      the casing

PP I (page 135) reads the MT and deliberates a little about an

alternative for "casing". This then assumes the topic position in

her version (Step 5) which is a modal passive: "may be cleaned",

combining the semantic elements of "suffices for" and "the

cleaning". PP II (page 135) at first (Step 3) expresses

satisfaction with the MT but in Steps 5 and 6 suggests a modal

passive with a conversion of "the cleaning" to "to clean", an

infinitive. However, she seems to be concerned that she may be

taking undue liberties, and in Step 9 comments that the MT is, in

fact, "okay really". Consequently, the ordering of elements in the

MT is preserved and the only change made is indeed to use an

infinitive instead of the noun "cleaning". PP III (page 135)

substitutes "is sufficient" for "suffices" (Step 10), and then

continues his version with a verbal gerundial form: "for cleaning

the casing" (Steps 11 and 12). In Step 18, he suggests another

version, a modal passive, with the finite verb "to keep clean", but

in Step 19 opts to adhere to his original suggestion.

PP I

PPV: The outside of the toaster may be cleaned simply by using a
damp cloth

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	für die Reinigung des Gehäuses genügt ein feuchtes Tuch	...
2.	RD.MT	a moist cloth suffices for the cleaning of the casing	2.4
3.	RPT.MT	the casing	1.9
4.	SUGG.TR.1	the outside	4.2
5.	CONT.SUGG.TR.1	the outside of the toaster may be	2.7
6.	CONT.SUGG.TR.1	cleaned simply	1.8
7.	CONT.SUGG.TR.1	with a moist cloth	3.9
8.	RPT.SUGG.TR.1	the outside	2.9
9.	RPT.SUGG.TR.1	of the toaster	4.8
10.	RPT.SUGG.TR.1	may be cleaned	2.7
11.	RPT.SUGG.TR.1	simply by using	6.7
12.	COMM.	a moist or a damp cloth	...
13.	RPT.SUGG.TR.1	a moist cloth?	...
14.	SUGG.TR.2	damp cloth	1.4
15.	COMM.	better	4.7
			....

PP II

PPV: A damp cloth suffices to clean the casing

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	a moist cloth suffices for the cleaning of the casing	1.6
2.	RD.STXT	für die Reinigung genügt ein feuchtes Tuch	17.8
3.	COMM.	hm(a) it's okay	8.7
4.	COMM.	a moist or a damp cloth?	20.0
5.	SUGG.TR.1	a damp cloth can be used	1.4
6.	CONT.SUGG.TR.1	to clean the casing?	2.2
7.	COMM.	or	...
8.	RPT.STXT	für die Reinigung des Gehäuses genügt ein feuchtes Tuch	1.8
9.	COMM.	it's okay really	...
10.	RPT.MT	a moist cloth suffices for the cleaning of the casing	18.2
11.	RPT.MT	suffices	1.5
12.	SUGG.TR.2	to clean the casing	6.6
			....

PP III

PPV: A moist cloth/damp cloth is sufficient for the cleaning of
the casing

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	twenty-nine	...
2.	RD.STXT	für die Reinigung des Gehäuses genügt ein feuchtes Tuch	...
3.	COMM.	ahah(u)	...
4.	RD.MT	a moist cloth	...
5.	COMM.	we would probably call it a damp cloth wouldn't we it's another version of feucht	...
6.	SUGG.TR.1	a damp	1.4
7.	CONT.SUGG.TR.1	cloth	4.5
8.	RD.MT	suffices	...
9.	COMM.	okay	2.9
10.	CONT.SUGG.TR.1	is sufficient	4.6
11.	CONT.SUGG.TR.1	for cleaning	3.9
12.	CONT.SUGG.TR.1	the casing?	...
13.	COMM.	(coughs)	...
14.	COMM.	yeh okay	...
15.	RPT.SUGG.TR.1	is sufficient for cleaning the casing	4.9
16.	COMM.	eh(r)	4.6
17.	COMM.	could also say	...
18.	SUGG.TR.2	the casing can be kept clean very simply using a moist cloth	2.0
19.	COMM.	oh well anyway I'll just leave this	...
			....

"OHNE + NOUN PHRASE"

(i)   TRANSLATION UNIT 6(iii)

    ST: Schalten Sie den Toaster vor dem Erstgebrauch durch
          Herunterdrücken der Lifttaste zunächst einige Male ohne
          Brot bei geöffnetem Fenster ein

    MT: Pre-connect you the toaster before the primary use
          through pressing down lift key at first some times without
          bread in the case of opened window ein

PP I

PPV: Before using the toaster for the first time, switch it on by
      pressing the button marked lift. Use the toaster a few
      times without actually putting in bread. This must be done
      in a room with the window open

PP II

PPV: Before using the toaster for the first time switch it on by
      pressing down the lift key. Do this at first a few times
      beside an open window without using bread

PP III

PPV: Before using the toaster for the first time switch on the
      empty toaster a few times with the toaster window open

PP IV

PPV: Before use the toaster should be put into action several
      times without any bread in the slots and after having opened
      a nearby window

In PP I's TAP (page 119), "without bread" (ohne Brot) becomes

"without actually putting in bread" (Steps 48 and 49). Here, a

noun is not converted to a verb, rather the "preposition + noun" is

expanded to become a "preposition + verb + noun". The MT version

of this is neither incomprehensible nor ungrammatical but PP I

obviously considers it necessary to supplement the MT with

additional information for emphasis or to enhance textual coherence. This practice of "étoffement" is not unusual when rendering prepositions of one language in another. In PP II's case (page 120), the expansion of the "without bread" to "without using bread" occurs in the Nachlauf and the PP is presumably motivated by a desire to increase the readability of the text which she has produced. PP III (page 121) voices no objection to "Without bread" but eventually discards it in the Nachlauf in favour of the adjective "empty". PP IV (page 122) expands "without bread" which then becomes "without any bread in the slots" (Steps 36-38) — not a verbal form.

NOUN WITHOUT PROPOSITION

TRANSLATION UNIT 26

> ST: Das Einschalten erfolgt ebenfalls mit der Lifttaste
>
> MT: Switching on also occurs with the lift key

The ST of this TU contains the only example of the conversion to a verbal form of a noun standing alone, ie. one not preceded by prepositions and adjectives or articles. The noun itself is similar to others already discussed. "Herunterdrücken" (TU 6), "Drücken" (TU 10), "Toasten" (TUs 15 and 16) and indeed "Einschalten" ("beim Einschalten": TU 9) are all nouns derived from verbs and having the same form as the verbal infinitive.

Fleisher states that this method of derivation — "Konversion", ie. "Ableitung durch Überführung in eine andere Wortklasse ohne formale Veränderungen" — plays a relatively insignificant role in word formation in German and that its occurrence is considerably more frequent in English [9]. However, he confirms that "der substantivierte Infinitiv" is the easiest way of substantivising verbs, although the range of meaning of the substantivised infinitive may not always correspond directly to the semantic range of the verb. Such derivations are often used, particularly in technical language, to denote "das Geschehen in seiner Dauer" or "der Prozeß in seinem Verlauf", unlike some other nominalised forms, and this is certainly true of the forms which appear in the ST of this text.

We have already observed that these are translated by METAL as gerundial nouns ("pressing down", "pressing", "toasting" and

"switching on"), capable (in METAL's view only!) of being preceded by definite articles, as in TUs 15 and 16. In all instances where this unit of meaning has been transferred to the PPs' versions a noun-to-verb change has taken place, and this TU is no exception.

PP I

PPV: Again to initiate this toasting process, the lift button must be pressed

PP II

PPV: The lift key can also be used to switch on the toaster

PP III

PPV: The lift button is also used to switch on the toaster

PP IV

PPV: To start toasting the lift key should be depressed as in normal operation

PP I (page 141), in Step 12, attempts to retain the verb "to switch on" in her version which, at this point, is an imperative. This is superseded by an infinitival construction which refers more specifically to the initiation of the toasting process. PP II (page 141) makes two suggestions before reaching a final version. The first is an active modal with the subject "you" (Step 4), the second an active modal, subject "the lift key" (Step 6). The final version is a modal passive used in conjunction with an infinitive: "to switch on (the toaster)".

PP III's final version of this TU is very similar to that of PP II. It is a passive followed by an infinitive: "to switch" (Steps 18-

21 – page 142). PP IV (page 142) also opts for an infinitive to
replace "switching on".   Initially his infinitival suggestion "to
start toasting" was placed at the end of the TU but in Step 17 it
assumes the starting position.   This version therefore bears
similarity to that of PP I, where the ordering of elements is
concerned.

PP I

PPV: Again to initiate this toasting process, the lift button must
      be pressed

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM	twenty-six	1.3
2.	RD.STXT	das Einschalten	1.6
3.	RD.STXT	erfolgt ebenfalls ais mit der Lifttaste	---
4.	RD.MT	switching on also occurs with the lift key	1.9
5.	RPT.STXT	erfolgt ebenfalls mit der Lifttaste	---
6.	RPT.MT	switching on also occurs with the lift key	2.1
7.	RPT.STXT	das Einschalten	1.5
8.	RPT.MT	switching on also occurs with the lift key	1.6
9.	RPT.STXT	das Einschalten	3.6
10.	RPT.STXT	ebenfalls	4.7
11.	COMM	okay switching on for this is alright	4.9
12.	SUGG.TR.1	again switch on this process	1.6
13.	SUGG.TR.2	again	4.2
14.	CONT.SUGG.TR.2	to initiate this	2.6
15.	CONT.SUGG.TR.2	toasting process	2.3
16.	RPT.SUGG.TR.2	toasting process	2.2
17.	CONT.SUGG.TR.2	the lift key	1.5
18.	RPT.SUGG.TR.2	lift key	---
19.	SUGG.TR.3	lift button	1.3
20.	CONT.SUGG.TR.2	must be pressed	7.6

PP II

PPV: The lift key can also be used to switch on the toaster

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.MT	switching on also occurs with the lift key	5.3
2.	RPT.MT	switching on	---
3.	COMM.	em(r)	---
4.	SUGG.TR.1	you can also switch on	2.3
5.	RPT.SUGG.TR.1	you	---
6.	SUGG.TR.2	the lift key can also switch on the toaster	9.2
7.	SUGG.TR.3	can also be used	1.6
8.	CONT.SUGG.TR.3	to switch on	2.1
9.	CONT.SUGG.TR.3	the toaster	---

PP III

PPV: The lift button is also used to switch on the toaster

STEP	CATEGORY	UTTERANCE	PAUSE
1.	RD.STXT	das Einschalten erfolgt ebenfalls mit der Lifttaste	---
2.	RD.MT	switching on also occurs with the lift key	---
3.	COMM.	no I'd make a passive out of this em(r)	6.6
4.	COMM.	eh(r) no	1.4
5.	SUGG.TR.1	the lift	2.1
6.	CONT.SUGG.TR.1	key	1.0
7.	SUGG.TR.2	switch	---
8.	SUGG.TR.3	button	---
9.	RPT.SUGG.TR.1	the lift	1.1
10.	COMM.	no lift button sounds like a Fahrstuhl	1.8
11.	RPT.SUGG.TR.1	the lift	---
12.	COMM.	ah I'll have to put key just now I think I'll have to look up Taste	9.0
13.	RD.RB	Taste push-button key key press button signalling key	---
14.	COMM.	key I always think of a little piano or a something on a typewriter	1.3
15.	RPT.SUGG.TR.1	the lift	1.2
16.	RPT.SUGG.TR.1	key	---
17.	COMM.	I'm going to call it a lift button I don't care if it sounds like a Fahrstuhl	1.3
18.	RPT.SUGG.TR.1	the lift	2.4
19.	CONT.SUGG.TR.3	button is	1.9
20.	CONT.SUGG.TR.3	also	1.5
21.	CONT.SUGG.TR.3	used to switch on the toaster	7.0
22.	RPT.SUGG.TR.3	it's also used to switch on the toaster	1.4
			....

PP IV

PPV: To start toasting the lift key should be depressed as in
       normal operation

STEP	CATEGORY	UTTERANCE	PAUSE
1.	COMM.	number twenty-six	2.2
2.	RD.STXT	das Einschalten erfolgt ebenfalls mit der Lifttaste	---
3.	COMM.	oh yeh	1.6
4.	COMM.	em(r)	5.5
5.	SUGG.TR.1	the	3.5
6.	CONT.SUGG.TR.1	lift	1.7
7.	CONT.SUGG.TR.1	key	1.1
8.	COMM.	or whatever it was I said before	2.5
9.	COMM.	see if I can find that quickly what I said before	7.0
10.	COMM.	so I did use lift key before hm(r)	1.1
11.	RPT.SUGG.TR.1	the lift key	2.9
12.	CONT.SUGG.TR.1	should be	1.9
13.	CONT.SUGG.TR.1	depressed	4.6
14.	RPT.SUGG.TR.1	the lift key should be depressed	8.3
15.	SUGG.TR.2	to start?	---
16.	COMM.	yes	---
17.	CONT.SUGG.TR.2	to start toasting	4.7
18.	CONT.SUGG.TR.2	the lift key should be depressed	1.6
19.	CONT.SUGG.TR.2	as in	1.6
20.	CONT.SUGG.TR.2	normal	1.7
21.	CONT.SUGG.TR.2	operation	2.5
			....

CONCLUSION

The motives for active-to-passive syntactic changes discussed in
Chapter 2 frequently seemed obvious from the TAPs, or readily
discernible from these verbalisations when viewed in conjunction
with problem indicators, alternative suggestions and temporal
values. Noun-to-verb changes are, in this respect, rather more
enigmatic.

As we have seen, varying proposals for the resolution of a
problematic noun or "preposition + noun" structure in the MT were
seldom forthcoming. The progression from the often ungrammatical
MT to a satisfactory subordinate clause, gerundial phrase or
infinitival construction was frequently effected without
perceptible intermediate stages in the TAPs. Furthermore,
motivation for a particular noun-to-verb change, or realisation
that such was the nature of the change made, rarely found
expression in the verbal data. (In TU 25, PPs III and IV expressed
a wish to reorder the constituents of the MT, but this reordering
alone neither necessitated or explained the noun-to-verb change
which took place.) Many of these changes therefore occurred
automatically.

Ericsson and Simon make the valid point that most theories of the
structure of the human information processing system distinguish
between fast, automatic processes and the slower processes that are
executed under cognitive control [10]. Several types of processes
generally occur automatically, in this sense:

> "There are many instances during thinking-aloud studies where
> a subject acquires hypotheses 'instantaneously' and directly,

without evidence of prior related or intermediate stages" [11].
They also assume that with an increase in experience with a task,
the same process may move from being cognitively controlled to
having automatic status. Indeed there is consensus among
scientists who have used introspective methods to evaluate
cognitive processes that some mental processes become more
automated with frequent execution. The conversion of a syntactic
form in one language to a syntactically different yet semantically
corresponding and grammatically correct form in another constitutes
one such process. This is based on the assumption that a
correspondence, either formal or individual, is established between
the two syntactically divergent forms. The existence of such a
correlation and a translator's or post-editor's knowledge of this
implies that the process will gain in automation as it does in
frequency.

Ericsson and Simon discuss the phenomenon of automation in a
general sense, ie. without reference to post-editing or
translation, explaining that when a process is a frequently-
occurring one:

> "intermediate steps are carried out without being
> interpreted, ie. without their inputs and outputs using STM
> (short term memory) [12].

These steps are thus not stored in the short term memory and hence
are unavailable for the TAPs. As a result the process is
accelerated.

Hönig, on the other hand, holds a conflicting view. He states that
the detailed analysis of introspection protocols has shown that, in
most cases, the PP does not appear to follow a cognitive path, from

which could logically be deduced how and why s/he arrived at a
particular formulation. This, he claims, is because this cognitive
information does not exist, since the proportion of judgements and
associations made intuitively is considerably larger than allowed
for in the cognitive models [13].

However, Hönig's notion of "Intuition" does not correspond to
Ericsson and Simon's "automation". Hönig claims that "kognitives
Denken" uses only the information which is available at that moment
and which is logically related to the problem to be solved. He
intimates that any mental processing which does not conform to this
is "Intuition" [14], although not certain whether "Intuition" is
innate or learned. Without actually defining the concept, he says
that "intuitive Urteile und spontane Assoziationen" are involved in
almost all translation processes. "Intuition" is

> "immer ein Ausdruck der Individualität des Übersetzers;
> Logik und Kognition sind dagegen überindividuell" [15].

Ericsson and Simon, on the other hand, view automatic processes as
being cognitive processes, but fast, highly-practised ones.

Wilss also discusses "Intuition", with regard to the translation
process. Whenever possible, a translator adheres to "von ihm mehr
oder minder planmäßig erworbenen Prozeßmustern", and implements
"eine methodisch oder sprachlich institutionalisierte Form der
Sprachverwendung" [16]. Intuition only comes into play in
situations which do not conform to normal translating practice.

It is thus clear that changes effected through automatic processes
cannot be described as intuitive, although they appear in the TAPs

as leaps without reason or justification. Furthermore, the role of
intuition in the post-editing process is difficult to discern,
since definition of this concept is highly controversial. However,
the processes under scrutiny here are clearly not intuitive. In
fact, many (eg. the move from "bei + NP" to "when + VP") are
undoubtedly automatic, in Ericsson and Simon's terms. They
frequently constitute the implementation by the post-editor of
linguistic correspondences which s/he has previously formed from
her/his study or practice of translation. Formed in a similar
manner are personal preferences for particular linguistic forms.
Such preferences have been observed in both the analyses of this
chapter and of the preceding one (eg. preferences for "after + VP"
and for passive formulations in PP IV's case). Changes prompted by
stylistic preferences may be executed with a degree of automaticity
but do not have to be. They are, in fact, encompassed in Wilss's
"planmäßig erworbene Prozeßmuster" and, like changes which occur
automatically, cannot be attributed to "Intuition".

Ericsson and Simon distinguish between automatic processes that
subjects already possessed prior to an experiment, as part of their
cognitive skills, and processes whose intermediate stages became
more automatic, and hence less reportable, during the course of the
experiment [17]. In TU 6, PP I failed to produce a replacement
structure of "in the case of + NP" in the Hauptlauf but, upon
returning to this in the Nachlauf, had no difficulty providing an
appropriate construction, having already substituted a "when..."
clause for "in the case of" in TUs 9, 15 and 20. This would appear
to indicate possible increased automation. Interestingly, this

"when..." clause is also used by PP I in TU 25 where the English MT version is "during + NP" but the corresponding ST is "bei + NP", as it had been in the TUs mentioned above. This could be an indication of the influence of the ST on the PP.

Other noun-to-verb changes also occurred with a degree of automation. The change from "when the toasting only a slice" of TUs 15 and 16 to "when toasting only one slice of bread" involved little more than the omission of the blatantly incorrect definite article and it therefore occurred without the existence of intermediate stages in the TAPs. In TUs 6 and 10, the noun-to-verb changes involved interchanging one preposition, "by", for another, "through", and this too can be said to have occurred with relative automation.

In TU 10, both PPs I and IV misread the MT, making the necessary correction. PP II, in TUs 15 and 16 also unconsciously corrected the MT, in both cases "misreading" it, ie. omitting the definite article. These instances are significant in that they highlight the extent of the automaticity with which the post-editing of these syntactic structures/TUs was carried out. Changes were effected so quickly that the end-product of the processing "replaces" the formulation of the starting point. Not only do the intermediate processing steps not feature in the TAPs, but in fact the actual object of the processing (ie. the defective MT construction) is also absent from the verbalisations.

Ericsson and Simon say there is suggestive evidence that practice leads to a successive fading from consciousness of information

about the process [18]. With regard to these particular noun to verb changes, the TAPs reflect little awareness of the process taking place, but the existing awareness does not appear to diminish with the frequency of the processes. The noun-to-verb change in TU 6, involving the substitution of "through" with "by", was executed by PPs I and II without comment. PP III states "through pressing down lift key that would have to be by pressing down lift key" and PP IV restructures the TU and does not include this element of the MT in his version. The same change took place in TU 10. Here PP I comments that the preposition used in the MT is wrong. PP II says "through pressing would that be by pressing". PP III comments that "through pressing" is "obviously just a Germanism through durch". PP IV says of the MT "well that's okay except change through to by". This seems to indicate increased awareness of the change made in the second of these TUs. This may perhaps be attributed to the fact that it was almost the only change necessary (apart from the addition of a definite article) in TU 10, whereas TU 6 required major reconstruction, and the noun to verb change constituted a relatively minor modification to the MT.

I conclude that the noun-to-verb changes which occurred in post-editing involved, for the most part, processes which were generally automatic. Two types of automatic processes may be distinguished — firstly, those inherent in changes which occurred as a result of native-speaker competence; and secondly, those which underlay changes prompted by contrastive knowledge of German and English. The first category included such changes as the discarding of a definite article or the interchanging of prepositions. These are

changes which could have been made — and with a high degree of
automation — by those with no knowledge whatsoever of the SL,
German. The second category encompasses the establishing of
correspondences between structures in both languages, eg. "vor +
NP" —> "before + VP" or "bei + NP" —> "when + VP". These
constitute solutions which could possibly be produced by post-
editors without SL competence. However, the experience of the PPs
in translation and indeed in contrastive stylistics enabled them to
execute these changes with a relatively high degree of automation.
Johnson and Whitelock [19] suggested that contrastive knowledge
should feature among the post-editors qualifications (see 1.2), and
these findings support that view. This will be of significance in
Chapter 5 where the skills and capabilities required by post-
editors are further discussed.

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4. *INTER-TU CHANGES*

4. INTER-TU CHANGES

These are syntactic changes, the relevance of which transcends the
boundaries of the TU(s) in which the change is made. They include
the introduction of linguistic elements with referential function
to link two TUs, or the reordering of elements within a TU in order
to influence the thematic structure of the TU or text. Cohesion
and coherence are the primary standards of textuality which are
most likely to provide motivation for and benefit from syntactic
changes of this nature. At the same time, the notion of
intertextuality also underlies certain inter-TU changes.

COHESION

Cohesion, according to Halliday and Hasan, "expresses the
continuity that exists between one part of the text and another"
[1]. Dressler and de Beaugrande describe cohesion as:

> "the ways in which the components of the surface text, ie.
> the actual words we hear or see, are mutually connected
> within a sequence" [2].

METAL adopts the cohesive devices of the ST literally. However,
Blum-Kulka puts forward and defends the proposition that different
languages use cohesive devices in different ways [3]. The cohesive
relationships between parts of texts are necessarily linked to a
language's grammatical system. Therefore, if languages have
different grammatical systems, there will be differences in the
types of links used to mark cohesion in a SL text and in its TL
translation. This point is also corroborated by Kachroo, who
concludes that the use of cohesive devices plays a crucial role in
determining the accuracy of a translation [4]. If the above

postulation is true, then it is feasible to expect PPs to introduce
additional linguistic cohesive elements into their versions of the
text. Similarly, it may be necessary to discard these translated
constructions where they may be superfluous or indeed ungrammatical
in the MT.

The thematic structuring of TUs also plays an important role in
textual cohesion. The syntactic ordering of linguistic elements in
a TU may have considerable bearing upon the semantic "continuity"
of the text. "What belongs together mentally is placed close
together syntactically" is Behaghel's First Law [5] and largely
reflects the actions of the PPs when TU constituents are reordered.
The positioning of topic and comment (or theme and rheme) in
English and German is not analogous, rather old or known
information in English tends to occupy a position at the beginning
of a sentence in English and at the end in German. This can lead
to a reversal of constituent ordering when moving from German to
English or, in this case, from the MT to a post-edited version.

Hauenschild highlighted the problems inherent in the translation of
a text by machine [6]. MT systems are constrained to a sentence-
bound approach, or in METAL's case, an approach centred on the
translation unit. The "mix" output (see Appendix B) given to
participants is the form of output generally used in post-editing
[7], but is unlikely to facilitate treatment of the text as an
integral unit. Furthermore, previous studies of the translation
process (eg. by Krings [8] and Königs [9]) have shown that
translators tend to process texts and choose their units of
translation at ranks significantly lower than those at which

meaning is generated.   Indeed, Folkart strongly advocated the
introduction of methods to heighten translators' awareness of
textual cohesion [10].   Given the nature of the material to be
post-edited, and the above findings about the translation process,
one may expect that the post-editing process be, almost inevitably,
TU-bound.   This is a point which will be further discussed in
Chapter 5.   In spite of the likelihood that processing occurs at
TU level, all participants execute changes which effect the
cohesion of the text and these are outlined and discussed below.

CHANGES EFFECTING COHESION

LOCATION (TU)	FREQUENCY (NO. OF PPs)	OCCURRENCE (PPs)			
6	4	I	II	III	IV
7	2	I			IV
8	1				IV
11	1	I			
15	2	I	II		
16	3	I	II	III	
18	3	I	II	III	
19	1	I			
21	3		II	III	IV
25	4	I	II	III	IV
26	4	I	II	III	IV
29	1	I			
31	1	I			

TRANSLATION UNIT 6

> ST: Schalten Sie den Toaster vor dem Erstgebrauch durch
>   Herunderdrücken der Lifttaste zunächst einige Male ohne
>   Brot bei geöffnetem Fenster ein
>
> MT: Pre-connect you the toaster before the primary use at
>   first some times without bread in the case of open
>   window ein

This TU has already been discussed in conjunction with noun-to-verb

shifts when moving from the MT to the participants' versions. The

abundance of nominal forms in the MT necessitated the introduction

of subordinate clauses and reformulation of the TU. One

participant (PP I) constructed her version with three sentences, PP

II's version comprised two sentences and PPs III and IV chose to

retain the mono-sentential structure of the MT.

PP I

> PPV: Before using the toaster for the first time switch it on by
>   pressing the button marked lift. Use the toaster a few times
>   without actually putting in bread. This must be done in a room
>   with the window open.

The TAP for this TU gives no indication of the motivation for the

move from one to three sentences. Reordering takes place with the

subordinate clause originating from "before the primary use"

assuming a position at the head of the sentence. Van Dijk points

out that in most cases the structure of sequences of sentences is

not isomorphous with the structure of the fact sequences they

denote [11]. The relation between action sequences and action

discourse may be one-to-one but quite often entails subordination,

which in turn involves changes in topic and focus. Where the

relation is temporal, it is often possible to subordinate either

sequence with regard to the other.   When the relation between facts
is one of condition-consequence,:

> "initial states or initial events are mentioned before
> intermediary/final states or events of a course of
> events" [12].

This is then normal ordering and is particularly typical for
explanatory contexts.   Thus left-branching (ie. the positioning of
a subordinate clause to the left of the superordinate one) is the
most logical as well as the most grammatical option here, and this
accounts for the concordance of the PPs' versions regarding the
positioning of the subordinate clause.

In PP I's version, the subject of the subordinate clause is "the
toaster" and the proform "it" is then used in the superordinate
clause.   "At first — some times — without bread" are the units of
information from the MT which are contained in the second sentence,
with "the toaster" once again the object.   The third sentence
contains "in the case of opened window" and requires an anaphoric
reference to establish a link with the previous sentence.   This is
achieved by means of the demonstrative pronoun "this", which
replaces the entire second sentence.

PP II

PPV: Before using the toaster for the first time switch it on by
       pressing down the lift key.   Do this at first a few times
       beside an open window without using bread.

Like PP I, it was necessary for PP II to employ a proform "it" in
the superordinate clause replacing the "the toaster" of the
subordinate clause. PP II, in Step 36 of 48, expresses her
intention of making two sentences from the MT's one, and in the

second of these introduces a referential demonstrative pronoun
"this", substituting for the superordinate clause of the first
sentence.

In the versions of both PP I and II, anaphoric references were
called for because the information which had been compacted rather
clumsily into one sentence in the MT was now distributed over three
and two sentences respectively.

PP III

PPV: Before using the toaster for the first time switch on the
       empty toaster a few times with the window open.

PP III omits "through pressing down lift key" and renders "without
bread" as an adjective "empty", thus succeeding in producing a
mono-sentential TU which is stylistically acceptable. Repetition of
"the toaster", instead of the introduction of a pronoun, is
necessitated by the decision to use an adjective. The omission of
"through pressing down lift key" is not explained by the TAPs but
occurs presumably as a result of PP III's endeavours to produce a
clear and comprehensible version.

PP IV

PPV: Before use the toaster should be put into action several
       times without any bread in the slots and after having opened
       a nearby window.

The retention of the nominalised form "before use" in PP IV's
version obviates the need to use proforms or referential elements.
He too does not include the "through pressing down lift key" unit
in his version, and also offers no explanation for this.

PPs I, II and IV did not change the ordering of the "without bread" and "in the case of opened window" units, relative to each other. However it was necessary to separate them, either through placement in different sentences or by means of a conjunction. PP II reversed the order of the units in the Nachlauf in an attempt to avoid a juxtaposition which would imply that one was a condition of the other, whereas in fact both are descriptive of the toasting process. All four, contrary to the MT, began with the subordinate clause or, in PP IV's case, with the prepositional nominal form.

TRANSLATION UNIT 15

    ST: Wie bie allen Doppelschlitz-Toastern kann es beim
         Toasten von nur einer Scheibe Unterschiede in der
         Bräunung beider Seiten geben

    MT: As there can be differences in the browning of both
         pages (side) in the case of all two-slice toasters
         when the toasting only a slice

Reordering occurs here, in a similar manner to TU 6, as a result of the use of a subordinate clause. The versions of PPs III and IV and the MT are correlative with regard to the positioning of semantic constituents. PPs I and II placed the subordinate clause at the beginning of the sentence.

PP I

PPV: When toasting only 1 slice of bread in a two-slice toaster,
      there can be differences in the degree of browning of the
      two sides

PP II

PPV: If you use a two-slice toaster to toast one slice of bread
      the two sides could be toasted to different degrees

PP III

PPV: As with all double toasters there can be differences between
       both sides when toasting one slice of bread only

PP IV

PPV: Differences in the degree of toasting can be found in all
       double-size toasters when only one slice of bread is inserted

PP I comments that "that's a better way to start it off", ie. with

the subordinate clause. PP II's subordinate clause is not a

"when..." clause, rather it is an active "if..." clause. PP III

begins his version with an adverbial phrase and relegates the

subordinate clause to the end of the sentence, which is also the

location chosen by PP IV for the subordinate clause in his version.

It should be noted that, unlike TU 6, both left and right positioning of

the subordinate clause is possible in this TU. There is an overall

tendency in English to position clauses that are constituents of

phrases at the end of the phrases [13], and this may account for

the structure of the versions produced by PPs III and IV.

The positioning of the subordinate clauses by PPs I and II may be

influenced by their consideration of thematic structure. TU 13

("Toasting a slice of bread") constituted the heading for the

section emcompassing TUs 14 to 26. The subordinate clauses ("when

toasting only one slice of bread", "if you use a two-slice toaster

to toast only one slice of bread" etc.) therefore constitute

"given" information or presupposed facts and, in accordance with

thematic sentence structuring in English, would merit positions at

the beginning of the sentences. This ordering therefore has

specific semantic and pragmatic functions:

"Presupposed propositions will normally be expressed by initial subordinate clauses" [14].

The final position of a sentence or a sequence of facts is assigned more informational value. Thus, by placing the subordinate clause initially, the focus is on the consequence of this presupposed fact. In this way, the remainder of this sentence, the superordinate clause, represents the rhematic element. The conflicting yet equally acceptable structures of PPs I and II on the one hand, and PPs III and IV on the other, may reflect the two vectorial forces of syntactic structure in force here. There exists the tendency to place subordinate clauses at the end of sentences and opposing this are the constraints imposed by an awareness of what would logically constitite topic, or given information, and focus, or new information, in this TU.

TRANSLATION UNIT 16

    ST: Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere Einstellung der Bräunung wählen

    MT: You were to therefore select the one setting lower of the browning when the toasting only a slice

PP I

PPV: Therefore, when toasting 1 slice of bread, you should select one setting lower for the degree of browning

PP II

PPV: When toasting only one slice of bread you should therefore use one browning setting lower

PP III

PPV: When toasting one slice only you should therefore select one setting lower

PP IV

PPV: Select one setting lower on the dial/knob when toasting a
      single slice of bread

Lotfipour-Saedi, in a discussion of discourse analysis and the
problem of translation equivalence, calls attention to the well-
established conception in text linguistics and cognitive psychology
that keeping as identical as possible "the thematic elements" of
the consecutive sentences in a text contributes to a more cohesive
and thus more easily processable text [15].

The MT of "beim Toasten von nur einer Scheibe" is positioned by
METAL at the end of the sentence and is transferred to the
beginning of the TU by three participants. The fourth, PP IV,
retains the constituent ordering of the MT.

PP I's version of the preceding TU began with a subordinate clause
which was almost identical to that of this TU, and PP II, perhaps
to a lesser extent, has also retained the same topic here as in TU
15. PP III has also begun his TU with this subordinate clause and
it seems that, from a textual point of view, the most logical
position for this "when..." clause is indeed in the topic slot.
PP IV's disparate version occurs as a result of his use of the
imperative, by virtue of which the verb is almost necessarily
assigned a position at the top of the sentence.

TRANSLATION UNIT 25

      ST: Bei Verwendung des Brötchenaufsatzes schaltet der Toaster
           unabhängig vom Regler automatisch auf eine Festzeit um

      MT: The toaster changes over independently of the controller
            during use of the grid for rolls automatically to a fixed
            time

PP I

PPV: When this grid for bread rolls is being used the toaster
       decides on a toasting time, independent of the regulator

PP II

PPV: When you are using the grid for the rolls the toaster
       automatically changes over independent of the controller
       to a fixed time

PP III

PPV: When using the fitting for toasting rolls the toaster
       automatically switches to a fixed time/standard time
       independently of the controller/setting of the controller

PP IV

PPV: When the grid for rolls is in position the toaster
       automatically switches over from sensor operation to a
       fixed toasting time

In this TU, ordering of the participants' versions corresponds to
that of the ST, although the semantic unit with which participants
begin their version is verbal, and that of the ST is nominal.
However, ordering within the intermediate MT is in variance to both
the ST and the PPVs.

PP I (Step 16) uses the demonstrative pronoun "this", commenting
that she is using it to "connect back to the last sentence". The
previous TU was "der Brötchenaufsatz muß mit den Federbügeln
einrasten" and this TU therefore contains the second reference to
the "grid for rolls". This is sufficient reason to justify
positioning of the subordinate clause to the left of the

superordinate clause.

PP II first attempts to make the TU acceptable without making changes in the word/constituent order. She subsequently assigns the subordinate clause to the beginning of the sentence.

PP III observes that "the whole order of words is wrong here" and acting upon this, he too places the subordinate clause at the beginning.

PP IV expresses his intention of beginning with the English equivalent of "bei Verwendung", which is first nominal and then a "when..." clause. Thus, as was the case in TU 6, there is consilient constituent ordering by the PPs.

As can be discerned from the TAPs in these instances — in particular from those of PPs III and IV — the decision made here may be ascribed to some notion of thematic structuring on the part of the PPs. This manifests itself as an innate ability to correctly place constituents of one TU in relation to the constituents of the preceding sentence, eg. "sensing" that reordering is necessary, rather than as the possession of scientific or linguistic knowledge of topic and focus positioning.

TRANSLATION UNIT 18

> ST: Beim HT 55 mißt der eingebaute Sensor die Oberflächen-
>   temperatur des Brotes und steuert danach die Toastzeit
>
> MT: In the case of HT 55, the built-in sensor measures the
>   surface temperature of bread and controls the toasting
>   time after this

PP I

PPV: The HT 55 has a built-in sensor which measures the surface
      temperature of the bread and from this controls the toasting
      time/the length of the toasting process

PP II

PPV: In the case of HT 55 the built-in sensor measures the surface
      temperature of the bread and then controls the toasting time

PP III

PPV: In the case of the HT 55, the built-in sensor measures the
      surface temperature of the bread and controls the toasting
      time accordingly

PP IV

PPV: The HT 55 model has a built-in sensor which measures the
      surface temperature of the bread and regulates the toasting
      time

TU 18 contains a feature of German language which is often

problematic when one translates German into English. The German

pronominal adverb usually has a referential function and the

translations produced by METAL for these particles seldom

incorporate this in a manner which is grammatically, semantically

and stylistically adequate.

In this TU "danach" has been rendered literally and the temporal

sense of "nach" has been given precedence by METAL. Here this is

incorrect and the PPs must replace it with a more acceptable

equivalent. PP I suggests "from this" (Step 30) and "in this way"

(Step 33), eventually deciding to retain "from this".

PP II replaces "after this" with "then", obviously interpreting,

incorrectly, the linking reference strived for here by "danach" as

being of a temporal nature.

PP III has no comprehension or editing difficulties in relation to
the "danach" in this TU. He comments that "after this" is "danach"
in a temporal sense, but that this obviously is not meant here:
"steuert danach das heißt je nach der Oberflächentemperatur des
Brotes". He proceeds to suggest a fitting equivalent, "accordingly".

PP IV does not include the "danach"/"after this" element in his
version. There is nothing in the TAP to suggest that this occurred
because PP IV may have considered it redundant in the TU, rather I
would postulate that he forgot to include this unit of meaning in
his version.

TRANSLATION UNIT 21

    ST: Es muß dazu jedoch in beiden Schlitzen Brot gleicher
         Sorte und Beschaffenheit verwendet werden

    MT: Nevertheless it has to be used to this in both slots of
         sort same bread and nature

PP I

PPV: However, the bread must be of the same type and inserted in
      the same manner

      The bread, however, must be of the same type and inserted
      into the toasting slots in the same manner

PP II

PPV: However to do this the same sort and texture of bread must be
      used in both slots

PP III

PPV: However, for this it is necessary to use bread of the same
      kind and consistency in both slots

PP IV

PPV: However the bread used does have to be the same in both slits

The ST of this TU also contains a pronominal adverb which has been
incorrectly translated by METAL ("dazu" -> "to this") and must be
omitted or replaced by PPs. PP I discards it and does not replace
it. Her TAP gives no indication of the motivation for this
particular decision. PPs II, III and IV, on the other hand,
substitute more apt linguistic elements to convey anaphoric
reference, namely "to do this" (PP I), "for this (PP III), and the
emphatic periphrastic "does" (PP IV).

TRANSLATION UNIT 23

>   ST: Sollten Sie nur eine Scheibe toasten, legen Sie diese
>   bitte in den mit dem Sensorpunkt gekennzeichnetem Schlitz

>   MT: If you were to only toast a slice you please set these
>   into the slot characterised with the sensor point

PP I

PPV: If you wish to toast only one slice of bread, then place it
       in the slot which has the sensor point

PP II

PPV: If you only want to toast one slice then please put this into
       the slot where the sensor point is situated

PP III

PPV: If you want to toast one slice only please put it into the
       slot marked with the sensor point

PP IV

PPV: When toasting a single slice of bread please put the slice in
       the slot marked with the red dot

Here the proform "diese", referring to "eine Scheibe", has been
incorrectly translated by METAL which is incapable of making a
distinction between the plural demonstrative pronoun and the
singular feminine. The PPs replace the incorrect form by "it,
"this" and "the slice", commenting that a singular form is
required.

TRANSLATION UNIT 26

    ST: Das Einschalten erfolgt ebenfalls mit der Lifttaste

    MT: Switching on also occurs with the lift key

PP I

PPV: Again to initiate this toasting process, the lift button must
       be pressed

PP II

PPV: The lift key can also be used to switch on the toaster

PP III

PPV: The lift button is also used to switch on the toaster

PP IV

PPV: To start toasting the lift key should be depressed as in
       normal operation

This TU has previously been discussed in reference to noun-to-verb
and active-to-passive changes. PP III decides "I'd make a passive
out of this" and it is therefore to be expected that he begin his
version with the English equivalent of "Lifttaste". The other
participants seem to first select the semantic constituent to

occupy the topic slot, which in turn creates a predilection for use of the passive.

As already outlined in Chapter 2, one of the functions of the passive voice in English is "to promote textual cohesion" [16]. This is achieved by the passive since its use often permits "thematisation" [17]. Generally the object of an active sentence will become the subject, or "pseudosubject", of the corresponding passive sentence and will thus occupy the topic slot. This would be in contrast to its previous object placement within the active sentence, the topic of which is more likely to be the "real" subject. Here PP II starts with "the lift button", as does PP IV initially ("the lift key"), eventually placing the infinitival phrase in front. PP I begins with a similar infinitival construction but designates topic position to "the lift button" within the main clause.

TRANSLATION UNIT 7

        ST: Sie können alle Brotsorten toasten
        MT: You can toast all bread sorts

PP I

PPV: All types of bread may be toasted

PP II

PPV: You can toast all types of bread

PP III

PPV: You can toast all kinds of bread

PP IV

PPV: All sorts of bread can be toasted in this model

PP IV, exhibiting the previously mentioned inherent awareness of
native-language thematic structuring, says "probably it would be
the other way round in English", and both he and PP I begin their
versions with "all types/kinds of bread". However, from a purely
pragmatic point of view, the versions of PPs II and III are just as
acceptable, and reordering does not appear to establish closer
links with the previous TU.

COHERENCE

Coherence, "the realisation(s) of the text's meaning potential"
[18], is not as easy to quantify or pinpoint within a text as
cohesion. Edmondson equated coherence with the text's
"interpretability" [19], and interpolations and modifications made
by the PPs to enhance the text's comprehensibility are therefore
considered here.

Dressler and de Beaugrande describe coherence as:

> "concerning the ways in which the components of the textual
> world, ie, the configuration of concepts and relations which
> underlie the surface text, are mutually accessible and
> relevant" [20].

Here my main concern is not merely how coherent the MT text appears
to its readers, the participants, rather I intend to explore how
they modify the MT in order to enhance its coherence. This may
occur where the text's coherence has been diminished as a result of
METAL's processing of it. Alternatively, it may be prompted by a
desire on the participants' behalf to increase the English text's

coherence in relation to that of the original German.

Since cohesion is:

> "an overt relationship holding between parts of the text,
> expressed by language specific markers",

changes made to enhance this are likely to be reasonably uniform

and we have observed that they are often executed unanimously.

Coherence, on the other hand, is:

> "a covert potential meaning relationship among parts of a
> text, made overt by the reader or listener through processes
> of interpretation" [21].

Since it is dependent upon "the outcome of cognitive processes

among text users" [22], it entails a marked element of subjectivity

and this is reflected in the individualistic changes made by

participants.

INTERTEXTUALITY

The third standard of textuality which merits discussion here is

intertextuality. This:

> "concerns the factors which make the utilisation of one text
> dependent upon knowledge of one or more previously encountered
> texts" [23].

According to Bühler, intertextuality is responsible for the

evolution of text types as classes of texts with typical patterns

or characteristics [24]. Here I am concerned with the

consideration (or lack of same) given by the participants to the

particular text type which they were post-editing. To what extent

were the changes made influenced by previous knowledge of texts of

this nature? It is most appropriate to discuss each of the

participants with reference to those textual modifications which

may be accredited to the standards of coherence and intertextuality.

COHERENCE-RELATED AND INTERTEXTUALITY-LINKED CHANGES

LOCATION (TU)	FREQUENCY (NO. OF PPs)	OCCURRENCE (PPs)			
4	2			III	IV
5	1				IV
6	2			III	IV
7	1				IV
8	2		II		IV
10	1	I			
14	2			III	IV
20	1				IV
21	2	I			IV
23	1				IV
24	1				IV
26	4	I	II	III	IV
28	1				IV
32	4	I	II	III	IV

PP IV's CHANGES

In TU 5, PP IV decides to omit the brand name Braun,

> "because I always think that is extraneous anyway re keeping repeating the maker's name".

His remark (particularly "I always think") reveals his awareness of

the practice of repeating the manufacturer's name in literature

produced by manufacturers pertaining to their products. However,

he realises that such reiteration can boast of no informational

value and sees no reason to include redundant elements in his
version.

In TU 6, contrary to the other three participants, PP IV does not
verbalise the nominal MT structure. Instead he opts for "before
use": "that's the standard English collocation for this sort of
situation". This indicates that his editing is being carried out
keeping in mind previous encounters with texts of a similar nature
and that this decision is therefore based on prior knowledge of
such texts. As mentioned in the cohesion discussion, PP IV omits
the "through pressing down lift key" element here, presumably to
enhance textual coherence.

Although lexical decision-making is not of primary importance here,
it too reflects consideration of text types. In TU 8, PP IV
searches for an English equivalent of "gewünscht", eventually
asserting "probably they'd just say correct", "they" referring no
doubt to writers of similar instructions in English.

> "A text does not make sense by itself but rather by the
> interaction of text-presented knowledge with people's
> stored knowledge of the world" [26].

For this reason, PP IV suggests alternatives for "Lifttaste" in
TU 8:

> "because toasters have got different sorts of 4.4 ways of
> setting 3.9 the toasting...on my toaster it's a knob but
> God knows what other people have got".

Similarly in TU 9:

> "so that choice of word 1.9 would 1.1 eh(r) have to be
> according to what the thing looks like in reality".

He thus displays his awareness of the relationship between the

linguistic elements of the text and their underlying real-world

concepts. Also in TU 8, PP IV inserts a medium value ("three

medium") in "one light six dark". "I'm inserting this because I'm

not an extremist" is followed by the comment:

> "so I've added something to the translation in this case
> because this is not customer-friendly 1.2 or user-friendly
> 1.8 it's always good to have a medium value in as well 2.7
> and that's very often the case for translations that you
> have to add something".

These modifications are therefore obviously aimed at enhancing the

English text's coherence.

In TU 11 he remarks that "this is difficult to judge out of

context" since he assumes that this TU was originally accompanied

by a diagram. Once again he is quite concerned with maintaining

the link between the linguistic forms and the concepts of reality

to which they refer.

This becomes obvious once again in TU 19 where, in the search for

an adequate translation of "Regler", PP IV reiterates that "a lot

depends on what the damned thing looks like".

In TU 20 PP IV feels compelled to add information to his version:

"I might even insert the word daily here it sort of makes it

sensible", but obviously has reservations about the absolute

necessity of it and compromises by placing it in "soft brackets".

By his own admission this interpolation renders the version, in his

view, more sensible.

It is interesting to observe that in TU 23 the "mit dem Sensorpunkt

gekennzeichneten Schlitz" becomes "the slit marked with the red

dot", although the original text makes no reference to the colour

or the appearance of the "sensor point". In PP IV's illative

version, he seems to be unaware that he has added information and

therefore does not justify it through expression of coherence-

related motives.

Similarly, in TU 24 he adds (in soft brackets) the number of spring

clips:

>"and then I think I'd put the number 5.1 or maybe it's not
>necessary",

eventually deciding

>"that would be the normal thing to put in the number".

PP IV is obviously referring to his conception of language usage

norms in texts of this type.

He continues to be conscious of intertextual concerns and TU 28

sees the exclamation: "oh what do we say for that? (groans)".

Here PP IV is aware of how frequently this TU occurs in

instructions texts and searches for the standard English expression

or sentence. The latter bears little linguistic resemblance to the

MT but may be regarded as functionally identical.

TU 31 apparently also represents to PP IV a commonly-used

instruction and, having formulated his version, he affirms "yes

that's the way we'd do it". TU 32, too, constitutes a form which

can be regarded as integral in texts of this type. PP IV proposes

a rendering and then, illustrating his recognition of the standard

nature of it, says:

>"I'm sure that there's some phrase like that for Änderungen
>vorbehalten".

PP IV's constant awareness of the real-world entities referred to
through the language of the text is portrayed by the extratextual
remark with regard to TU 15: "I can't remember what it says on the
box of the toaster that I once bought in England" when searching
for an English equivalent of "Doppelschlitz-Toaster"; his
exclamation of "oh that's clever I didn't know that right although
it's pretty sensible" in response to the information given in TU
16; and his realisation of what "control sensor" actually entails,
as revealed in TU 18: "ah we know what it is now!".

In TU 21, the bread to be used in both slots must be of the same
"Sorte und Beschaffenheit" or "of sort same bread and nature" - a
rather unintelligible MT version. PP IV renders this as "does have
to be the same", then exclaims "oho sorry no I missed something
there" but upon reflection decides

> "I think I shall leave it like that because 1.2 you can't get
> any simpler 9.6 maybe it's 1.4 disputable".

Other embellishments or omissions were effected by PP IV without
reference to motives behind, or justification for, the modifications.
It is conjecturable that these are executed to further the
coherence of the text. In TUs 4 and 14 "Note" becomes "Please
note". TU 7's "all sorts of bread may be toasted" is supplemented
by "in this model". TU 24 sees the expansion of "switching on" by
all PPs into a verbal clause incorporating the object of this
switching on, namely "the toaster", "toasting process", or, in PP
IV's case, "toasting" (ie. "to start toasting").

PP III's CHANGES

PP III's TAP contains fewer examples of awareness of maintaining or

improving coherence within the text. His first reference to this

is in relation to TU 8 where, almost humorously, he says:

> "then I think to make it absolutely sure in English I would
> probably add on the end eh(r) 2.9 depending on how you like
> your toast (laughs) no we'll not bother doing that though".

It is obvious here that he considers the possibility of

interpolations to improve the "sense" of the English version but on

this occasion is perhaps not convinced of the necessity.

In TU 11, he displays clear realisation of the real-world:text

relationship:

> "that's all well and good saying device but it's a toaster so
> let's call it a toaster".

Like PP IV, PP III remarks on the nature of TU 31, "Änderungen

vorbehalten":

> "I'm not sure what exactly the eh(r) sentence is they use...
> it would have to be a long thing...usually it would be at
> short notice or something but I think we'll leave that off
> here",

all three comments conveying the cognised customariness of this

formulation.

TUs 4 and 14 are also supplemented by PP III with an emphasis-

carrying adjective ("Important note"). TU 6 is rendered without

the "through pressing down lift key" element. It can only by

assumed that this was considered redundant. TU 26 becomes more

explicit through the noun to verb shift.

CHANGES MADE BY PPs I AND II

If the maintenance of coherence constituted a primary concern of

PPs I and II, it is cleverly disguised, since they make little

allusion, conscious or otherwise, to this standard of textuality.
It seems more accurate to infer that coherence is seldom
considered. Furthermore, the text is regarded as consisting of a
series of words or sentences and as bearing little relation to the
set of texts to which it belongs. Perhaps more importantly, the
TAPs seem to indicate that PPs I and II show ample consideration
for linguistic forms, but do not often establish sufficiently
strong links between these and the concepts, state descriptions and
action sequences to which these language structures refer.

PP II modifies TU 8, omitting the control settings 1 and 6 and
simply leaving "light to dark". The only evident establishing
of links between the text and reality occurs in TU 15, where PP II
says "never knew that" in response to the revelation that "there
may be differences in the browning of both pages (side) in the case
of all two-slice toasters when the toasting only a slice".

PP I inserts "at any stage" into TU 10: "you can interrupt the
toasting process by pressing the stop button". In TU 21, "es
muß...Brot gleicher Sorte und Beschaffenheit verwendet werden" ("it
has to be used...of sort same bread and nature") is misunderstood
and is first rendered as "must...be inserted in the same manner
into the slots". "Into the slots" is subsequently modified to
"into the toasting slots", accompanied by the explanation: "make
it clearer". In TU 16, PP I almost effects a coherence-related
change. The MT is "you were to therefore select the one setting
lower of the browning when the toasting only a slice". PP I asks
the justifiable question: "one setting lower than what though?"
This is followed by the tentative suggestion: "one setting lower

than usual?" However, she admits not knowing what is meant here:
"it's not very clear in the text", and therefore makes no
interpolations to the TU.

The other changes made by these PPs and attributable to a more
interpretable final text are those made in TU 26 (already
discussed in relation to PPs III and IV), and the necessary changes
made to TU 32 ("reserve changes"). The latter involved, in both
cases, consulting a dictionary and accepting the "subject to
alterations" contained therein, although PP I expressed a lack of
understanding for this:

> "hm(r) what's it mean though? 10.8 subject to alterations oh
> it's not very clear in the text anyway"!

Surely logical inferencing, had it taken place, or contemplation of
the usual concluding expressions of instructions texts would have
facilitated, at least, comprehension of the ST/MT/dictionary entry
and, at best, the production of a more satisfactory version of the
TU in question.

CONCLUSIONS

The three categories of textual standards discussed in this chapter
— cohesion, coherence and intertextuality — orbit a common and
controversial nucleus; that of the relationship between language
and knowledge of the world. The application of each of the
standards is closely linked to the post-editors' perception of this
relationship and to the extent to which they allow themselves to be
influenced by it. This nucleus is therefore a quoin of vantage for
the concluding remarks on inter-TU changes.

Representation of meaning has long been congested in clouds of controversy. Proponents of the referential theory of meaning insist that the meaning of a word is what the word refers to, or the relation of a word to what it refers to, whereas the image theory argues that the meaning of a word is the image it evokes. According to Clark and Clark, the most significant shortcomings of these theories is that they fail to separate knowledge of language from knowledge of the world, and the authors make a distinction between two aspects of meaning. On the one hand the "sense" or "intension" of a word is the concept associated with that word. On the other hand, the "reference" of a word (its "extension") is the set of things the word applies to in any real or imaginery world — the objects, states, events or processes in that world [25].

Clark and Clark are subsequently concerned with componential, quantificational and functional approaches to meaning, outlining the drawbacks of each in representing meaning. Luria, accepting that words have "referential" and "associative" (or "connotative" and "denotative") meanings, pursues a more general psychological line of logic which expounds the notion that, without language, our world would consist of those objects, concepts, etc., which we could perceive or experience directly. Language thus creates an added dimension to the human world, enabling us to surmount the limitations posed by a world consisting of our individual perceptions alone. Through language, we possess the ability to treat of objects we have but conceptualised, and indeed to carry out cognitive actions in the absence of real objects [26].

Such is the intrinsic nature of the complex relationship between

the world and language, seen from the micro-perspective of words:

> "The word is the foundation of the system of codes which
> ensures the transition from the sensory to the rational
> world" [27].

The utterance or sentence constitutes the introduction of words

into a system of relationships. However, the relationship between

an utterance and the connotative and denotative meanings of the

individual words is not easily explained. Similarly, a text is not

merely the sum of its individual sentences or words. This,

designated by Stolze as Übersummativität, is a proven assumption

upon which the discipline of text linguistics is founded. A text

forms a "strukturierter Zusammenhang" [28], and has a:

> "Gesamtbedeutung, die die Einzelbedeutungen der Sätze
> spezifisch relativiert" [29].

The quintessential intertwining of syntactic and semantic elements

is the cotextual aspect of a text. However, equally important are

the extra-textual factors of context. These include the

communication situation and the "soziokulturelle Umgebung" which is

determined by:

> "natürliche, historische, kulturelle, religiöse, soziale,
> wirtschaftliche, politische, technische, individuelle und
> okkasionelle Umstände" [30].

This progression through the relationship between language and the

world, which began with words, does not culminate in the text.

There is, in fact, a yet more generic level, affording a wide-

angled view of the previous panorama. This is the level of the

text type and is concisely defined by Peters as follows:

> "Textsorten sind konventionell geltende Muster für komplexe
> sprachliche Handlungen und lassen sich als jeweils typische

> Verbindungen von kontextuellen (situativen), funktionalen
> und strukturellen (grammatischen und thematischen) Merkmalen
> beschreiben" [31].

Thus, texts may be grouped into categories according to their
function. Moreover, the existence of structural, text-typical
norms facilitates, and provides orientation for, the generation
and reception of texts.

The function of this short exposition has been to make clear the
importance of establishing and maintaining the link between
language and the real-world concepts denoted by it when processing
(eg. producing, comprehending, translating, editing, etc.) language
in general, and texts in particular.

Cohesion is the standard least jeopardised by lack of consideration
of this relationship. This is illustrated by comparing the
occurrence of the changes both affecting and effecting cohesion,
with those which were related to coherence or intertextuality.

The changes made by PP I influencing cohesion far outnumber those
of PPs II, III and IV. Yet, changes of the second type were rare
in PP I's version. She may indeed have given due consideration to
the textual nature of the series of sentences before her, and
subsequently effected her changes in the syntactic compages of
this. However, although these changes are necessarily structural
in nature, their consequences are also deeply rooted in form and do
not extend into the realm of content. Perhaps it may be said that,
in Saussurean terms, PP I gives precedence to the "signifiant", not
to the "signifié".

PP IV represents the inverse of this, determinedly deliberating on

text type and information impartation, to the extent that he
remarks on the execution of changes designed to produce a more
coherent text.

PPs II and III are the medium values, although PP II's coordinates
are situated more closely to those of PP I on the form:content
graph, which, in a broader sense, is a representation of
language:world knowledge.

Of interest is the observation that PPs II and III both reread
their entire versions in the Nachlauf phase. PP I, on the other
hand, completed several unfinished TUs in the Nachlauf. These were
in the first half of the MT/PPV. Having done this, she quickly
scanned the latter half of her text, beginning from the last TU
requiring emendation. PP IV, upon completion of the final TU,
concluded the post-editing process. PP IV's behaviour in this
regard may give credence to the already evidenced predomination,
in his post-editing, of content over form, where the finished
structures of the text were perhaps less important than the
concepts to which they refer.

I do not wish to deem one final version of the text more correct
than another, nor is it my intention to judge the changes made by
one or other PP as being either necessary or superfluous. Rather I
wished to isolate the motivation for inter-TU changes and trace its
reflection in the TAPs. This, in turn, was to highlight the
varying degrees of concern for standards of textuality among PPs,
and to outline the significance of such standards in view of the
relationship between "words and the world" [32].

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5. CONCLUSIONS AND RECOMMENDATIONS

5.   CONCLUSIONS AND RECOMMENDATIONS

In this concluding chapter I intend, firstly, to present some statistical information regarding the TAPs and the PPVs. Secondly, I would like to discuss aspects of the post-editing process which were not brought to light in Chapters 2, 3 and 4. Finally, based on the range of observations which have been made concerning the post-editing process, I will focus on the skills and competence required or desirable on the part of post-editors and make some recommendations for post-editing in the future.

Overleaf are some statistics for both the TAPs and the PPVs. These PPV statistics are followed by the ensuing PP profiles, also presented in tabular form to facilitate comparison of participants.

PPs' VERSIONS

	PP I	PP II	PP III	PP IV
Total no. of words in final version	482	415	413	422
Words written per sec. per min.	0.11 6.59	0.10 6.21	0.16 9.82	0.12 7.34
RB look-up	9 (RB1 x8) (RB4 x1)	11 (RB1 x11)	3 (RB4 x3)	3 (RB1 x3)

THINKING-ALOUD PROTOCOLS

	PP I	PP II	PP III	PP IV
Length of recorded post-editing task in sec. in min.	4367.7 72.8	4291.5 71.5	2424.8 40.4	3269.1 54.5
Total no. of words in TAPs	3996	3174	3682	3420
Words produced per sec. per min.	0.91 54.89	0.88 52.73	1.52 91.11	1.05 62.77
Total pause length in sec. in min.	3140.0 52.3	3324.7 55.4	1143.5 19.1	1783.9 29.7
Total no. of pauses	791	666	447	612
Total pause length as % of recorded time	71.9%	77.5%	47.2%	54.6%
Ratio of pauses to words produced	1:5.1	1:4.8	1:8.2	1:5.6

PP I	PP II	PP III	PP IV
longest TAP	shortest TAP	▨▨▨▨▨▨▨▨▨▨	▨▨▨▨▨▨▨▨▨▨
longest post-editing time	▨▨▨▨▨▨▨▨▨▨	shortest post-editing time	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	lowest rate of verbalisation	highest rate of verbalisation	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	longest total pause length	shortest total pause length	▨▨▨▨▨▨▨▨▨▨
highest no. of pauses	▨▨▨▨▨▨▨▨▨▨	lowest no. of pauses	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	longest average pause length	shortest average pause length	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	highest % of total time = pause time	lowest % of total time = pause time	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	lowest no. of words produced per pause -TAP	highest no. of words produced per pause -TAP	▨▨▨▨▨▨▨▨▨▨
longest PPV	▨▨▨▨▨▨▨▨▨▨	shortest PPV	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	lowest rate of PPV production	highest rate of PPV production	▨▨▨▨▨▨▨▨▨▨
▨▨▨▨▨▨▨▨▨▨	highest no. of RB look-ups	lowest no. of RB look-ups	lowest no. of RB look-ups

These profiles mirror the profiles of the PPs presented in 1.4, and also correlate with some of the processing capabilities and difficulties already observed in the previous chapters.

The statistics for PP IV are not at either extreme, although generally situated closer to those for PP III. In isolation, this fact may not reveal much about his post-editing. However, in view of the preceding chapters it strengthens the observation that the post-editing of this text poses few difficulties for him. An additional indication of this is his use of reference books. He looks up "steuern" in order to find an appropriate English-language equivalent but dismisses the dictionary suggestions as "useless". Having decided that "regulate" is the term he requires, he crosschecks "for a joke" to see if "steuern" is given as an equivalent for "regulate" — "a well-known translator trick". His final RB consultation occurs because he is "sure there's a good English word for that but it won't occur to me". He therefore makes very sensible use of RBs, and at no time suffers comprehension difficulties.

PP III has had most professional experience of translation and this probably accounts for the speed with which he completed his post-editing. His high level of SL competence meant that he experienced few comprehension problems. Indications in support of this are the low number of pauses and the short duration of these. That his PPV is shortest is not significant since the versions produced by PPs II and IV are only marginally longer. His use of reference books was limited to three instances and he was the only PP to make exclusive use of a technical dictionary. This again occurs as a

result of both his SL competence and his background in technical
translation, by virtue of which he is probably quite accustomed to
referring to specialised dictionaries. At no point did
comprehension difficulties prompt reference-book consultation and
on all three occasions he rejected the equivalent offered by the
reference book, thus not at all displaying the dependence on
dictionaries, expecially bilingual ones, witnessed by Krings with
regard to advanced language learners [1].

PP II represents almost the total inverse of PP III. The
statistics indicate that she is hesitant and, relative to PPs IV
and II, has difficulty post-editing the text. Her knowledge of the
SL German is not as extensive as that of the two PPs above, and
this must account for her low rate of verbalisation and for the
high percentage of the total recorded time which constitutes
pauses. Her use of reference books was sometimes prompted by her
inability to understand the ST, and she made use of the equivalents
provided by dictionaries on six occasions. She thus demonstrates a
greater dependency on reference books than either PP IV or PP III,
and does not make use of technical dictionaries.

PP I's profile resembles PP II's. Her written version is
considerably longer than the others because she supplied
alternatives for three TUs. This, in itself, may indicate a degree
of uncertainty and the presence of problems. She took longest to
complete the post-editing task, but in fact only marginally longer
than PP II. At least half of her reference-book consultations
involved lexical items, the meanings of which she was unsure of.

The processing by PPs I and III disprove the findings of Gilhooly and Gregory who concluded that simple length of protocol in words was an accurate indication of protocol quality [2]. The TAPs produced by PPs III and IV provide considerably more information regarding motivation for various decisions reached than does PP I's TAP. The former thus ranks higher on the protocol quality scale. It became clear in Chapter 2 that much of PP I's processing involved repetition of ST, MT and PPV units. Thus, in this study, protocol quality is more directly linked to rate of verbalisation than to protocol length.

THE "NEVER-MIND-IT'LL DO" SYNDROME

A significant aspect of post-editing revealed in the TAPs is what I have termed the "never-mind-it'll-do" syndrome. This refers to instances, chiefly but not exclusively in the lexical sphere, where PPs accept unsatisfactory renderings. These have sometimes been produced by the PPs themselves, but often they are the MT versions to which they are compelled to seek recourse. I have isolated below the instances in each participant's TAPs where this phenomenom is manifest.

(i) PP IV's TAP

In TU 2, PP IV admits being "a bit lost on that one", referring to "control sensor":

> "I would require a lot of research finding out what exactly the sensors are for".

In spite of this lack of complete understanding of the terms in this context, he decides:

> "I'll leave that it just looks good but it's pretty
> meaningless for normal English readers".

This thought is reiterated in TU 17, where "control sensor" occurs

a second time: "okay well nothing we can do about that".

With regard to the MT's "crumb compartment" in TU 5, he says: "I

suppose that's alright", and is willing to accept the MT.

In TU 9, his acceptance of the MT term "lift key" takes place with

reservations:

> "so for want of a better idea and knowing jolly well that it
> won't be in the dictionary I shall use this expression 1.7
> the lift key".

Finally, in TU 22, having criticised the German ST for this

particular translation unit, he proposes a version and ends his

processing of the TU with "that's what's meant I hope".

(ii) PP III's TAP

PP III's reluctantly retained TUs are based partly on what he

perceives as being lexical inadequacies, but some are also syntax-

related. They begin in TU 6 where METAL's (correct) rendering of

"Fenster" as "window" is a cause for concern:

> "that sounds a bit funny but eh(r) I wouldn't know what
> else they would call Fenster".

The problematic nature of the rendering of "Fenster" gives rise to

the closing remark for this TU: "well I don't like that very much

but never mind". In fact, he subsequently (ie. in the Nachlauf)

modifies slightly his final Hauptlauf version of the TU.

In TU 8, it is not METAL's terms but his own which are, in his

view, not entirely satisfactory:

> "well desired sounds a bit highfalutin but never mind"

and:

> "well I don't like my mode but I couldn't think of
> anything else".

In TU 11, PP III harbours some doubts about the meaning of the ST

and, as a result of this, he decides to accept the MT, since he is

unable to suggest a reliable replacement:

> "not quite sure what they even mean in the German das
> Gerät wird ausgeschaltet 1.3 oh well switched off".

He remarks in TU 18:

> "built-in sensor we could have said integrated but
> never mind".

This does not really constitute a criticism of the MT, rather a

proposed translation alternative, of equal standing with the MT

term.   The reaction to the MT's "surface temperature" in TU 18 is:

> "that's alright 2.4 although it sounds a bit like we're
> talking about suns and planets".

He nonetheless uses this term in his version.   Also in this TU he

resignedly states:

> "oh I'm gonna write colour that's all it's not quite right".

Similarly in TU 26, having previously attempted to find an

appropriate term for "Lifttaste", PP III exclaims:

> "I'm going to call it a lift button I don't care if it
> sounds like a Fahrstuhl".

In TU 29, as in TU 18, he proposes a viable alternative but

nevertheless retains the MT structure:

> "could also say the casing can be kept clean very simply
> using a moist cloth 2.0 oh well anyway I'll just leave this".

The final instance of PP III's acceptance of a lexical item which,

in his view, seems inadequate, occurs in TU 33, where he is not

enthusiastic about the rendering of "Richtlinien" as "guidelines".

He gives expression to his dissatisfaction in two comments:

> "well I don't know what else you would say apart from guideline 1.0 Richtlinie 2.6 of course nobody knows what the guidelines seventy-six eight eight nine are when you hear Richtlinien 1.1 oh I see it says E W G on the back well I don't know what to do there"

> "alright I'll just write guidelines 1.0 seventy-six eight eight nine 4.0 but guideline I don't like".

(iii) PP II's TAP

PP II, on more than one occasion, decides that a term used by METAL, although unfamiliar to her, is a technical one and is thus correct. In addition to these instances, the TAP reflects other moments of uncertainty. In TU 6, for example, with regard to the MT's "lift key", she deliberates: "I don't know whether that's right I suppose", and in TU 15 she doubts the superiority of her own version over that of METAL: "don't know whether my translation's any better". In TU 19 PP II remarks of the MT:

> "it makes sense but I don't know whether it's 1.2 I'd actually write it",

later exclaiming: "oh I can't think of anything!". Upon producing a complete version she says "just go on", thus indicating that she is not entirely satisfied with her version. In TU 20 there is a similar problem:

> "I'm still not happy about that ensures constant browning".

In TU 24, she presumes that METAL's translation of "Federbügeln" is correct: "I suppose Federbügeln is right". Finally, TU 33 is problematic, prompting comments like:

> "I haven't a clue really",

"what does E W G then mean at the end?"

and a concluding despairing "I don't know". As a result of PP II's

difficulties in comprehending the ST, she does not modify the MT

here.

(iv) PP I's TAP

PP I's TAP contains several instances where, after some reflection,

she settles for a version with which she is obviously less than

happy. The fact that this begins approximately halfway through the

text is possibly of significance. It may indicate restlessness,

tiredness, or a desire to be finished as quickly as possible —

factors which were probably not present to such an extent in the

initial stages of the post-editing process. TU 15 is concluded

with: "okay that'll do"; TU 16 with:

    "oh I don't know what it means it's not very clear in
    the text";

and TU 19 with: "ah it's okay it's clear enough". In TU 24, while

committing her version to paper, PP I remarks: "I don't know what

this means", possibly referring to the term "grid for rolls" in

particular. The processing of TU 25 ends with: "oh it'll do!"

There are obvious comprehension difficulties in TU 32.   "What's it

mean though?" is a question referring to the dictionary entry for

"Änderungen vorbehalten", and the difficulties are dismissed with:

"oh it's not very clear in the text anyway". In TU 33, a

troublesome lexical item must be tackled, and the result is: "I'm

just gonna leave it screening". In the Nachlauf phase, PP I is

once again confronted with vocabulary which was problematic in the

Hauptlauf. She is not inspired, however, and in TU 5 says:

"maybe it is locked I can't think of anything else".

Also in TU 8 the MT term is retained:

"stepless controller 5.6 oh I don't know 1.9 stepless".

These examples also provide insight into the extent to which PPs
are influenced by the MT. At times they obviously use it as a
safety net to compensate for their lack of knowledge of correct
terms and the inability of dictionaries to supply these. It is
true to say that PP II, in particular, is prepared to believe in
METAL's competence in supplying correct "technical" equivalents.
These terms included "control sensor", "stepless controller" and
"spring clamps".

In PP I's case, of the nine incidences of adherence to dubious
versions, five concerned MT lexical items or syntactic structures,
and four were in relation to her own version. The six occurrences
of this nature in PP II's TAP were equally divided between these
two categories. Of eleven separate lexical items or structures
queried, six of those accepted by PP III, in spite of
dissatisfaction, were MT versions, and five concerned his own
translation. PP IV's TAP displayed the smallest number of such
occasions — three regarding inadequate MTs and one instance where
he expressed doubts about the version he himself had just produced.

These "reduction strategies" [3], when they occur in translation
entail making compromises and settling for an incomplete or
inadequate translation [4]. According to Krings they can be
discerned through "Übersetzungsproduktbewertungen" which are, for

the most part, negative [5]. However, this type of translation

quality assessment, although an important feature of translation

out of the native language, was rarely observable when Krings's PPs

translated into their native language. This was so because their

TL (ie. native-language) competence enabled them to continue

searching for translation equivalents until they found one which

was, in their opinion, appropriate [6].

On the one hand, the reduction strategies employed by the post-

editing PPs in this study bear similarity to those unveiled by

Krings. The evaluation by PPs of their post-edited version was

generally negative. On the other hand, it must be noted that these

post-editors were dealing with a TL text in their own native

language but nonetheless often employed reduction strategies.

Since the post-editors already had before them an English-language

version of the text — albeit qualitatively less than ideal — they

were more inclined to accept an inadequate version than Krings's

translators, who felt compelled to produce some rendering of their

own, whose only other option would have been to leave blank spaces

in their text. Secondly, although instructed to produce a text

suitable for publication, they may have been less concerned about

the ultimate quality of their versions in the knowledge that this

constituted an experiment, and that the texts they produced would

not actually be published. Their lack of concern in cases where

lexical difficulties were in question may stem from the awareness

that my main preoccupation in this project was syntax and that

lexical considerations were not paramount. In instances where the

entire TU, and not merely its lexis, was considered unsatisfactory

by the PPs, there is no such justification, and abandonment of the
TU must be attributed to poor comprehension of the German ST and
the ensuing inability to correct the MT or to generate a superior
PPV. Alternatively, ie. if no comprehension difficulties existed,
this dissatisfaction and defeatism must be ascribed to production
problems or impatience. The latter, in particular, cannot readily
be justified, since no time constraints were imposed.

In a limited number of cases where negative evaluations signal the
use of a reduction strategy, PPs explain why the particular version
or equivalent for which they are opting entails reduction or
"message adjustment"[7]. Such clarifications are available in the
TAPs in a small number of instances. An example of this is PP IV's
explanation that "control sensor" is "pretty meaningless for normal
English readers". PP III elucidates that "desired" sounds
"highfalutin", that "surface temperature" "sounds a bit like we're
talking about suns and planets" and that "lift button" is redolent
of "Fahrstuhl". "Guideline" is unacceptable because "nobody knows
what the guidelines seventy-six eight eight nine are". On the
basis of these evaluations, PP III's reductions appear to have a
more strategic foundation than those of PPs I and II. Krings
points out that this particular strategy is usually a "playing-it-
safe" one [8]. Obviously if the participants have difficulty
comprehending the MT and, more importantly the ST, they are more
likely to retain the MT equivalent or version, rather than risk
generating a version of their own. This is particularly true in
the cases of PPs I and II, as has already been illustrated by the
examples above. It is also evident that "message abandonment" —

"das Offenlassen einer Lücke im Zieltext" [9], occurring only once

in Krings's experiments, does not happen in the participants' post-

editing, since they have recourse to the MT version.

Krings also draws attention to participants' willingness to

translate without having sufficient understanding of the ST, and

cites examples of PPs misunderstanding the ST yet producing a

correct translation, and vice versa [10]. It can be observed that,

at times, PPs also post-edit without understanding either the MT or

the ST, but can nevertheless succeed in producing a version which

is correct. PP II's editing of "lets only operate" in TU 5

provides an example of this.

LINGUISTIC INTERFERENCE

It was indicated in 1.4 that PPs III and IV had both spent many

years in Germany. This has two perceptible consequences in the

post-editing process. Firstly, there appears to be less hesitation

and uncertainty on their parts — as exemplified in the statistics

above by shorter post-editing times, shorter pauses, higher

verbalisation rates, a smaller proportion of the total recorded

time taken up by pauses, and, as previously mentioned, less use of

reference books. These factors undoubtedly indicate the presence

of fewer comprehension and production problems (and hence fewer

editing problems) than in the cases of PPs I and II. This, in

turn, is a direct consequence of greater SL competence.

The second consequence of this is the possibility of linguistic

interference. There is evidence of this on a limited number of

occasions. Neither PP III nor PP IV have difficulty verbalising in
their native language. However, both exhibit rare instances of
spontaneous verbalisation in German. PP III, when processing TU
22, exclaims: "Toaste in der Mehrzahl hab ich noch nie gehört!".
TU 9 elicits an "aja" from PP IV. He also utters "ach ja!" in TU
25, and "nicht has to das wollte ich nicht" in relation to TU 24.

Both PPs III and IV experience minor difficulties in the lexical
sphere which are obviously due to prolonged exposure to a German-
speaking environment. In relation to "two-slice toaster"
("Doppelschlitz-Toaster"), PP III toys with "a toaster for toasting
two slices of bread", and eventually decides on "double toaster".
PP IV calls it a "double-size toaster", which is, in fact, rather
ambiguous, but he admits that this term is chosen:

> "because I can't remember what it says on the box of the
> toaster that I once bought in England",

and he adds a footnote to his PPV:

> "wanted to check in GB, whether family/twin toaster etc.".

In TU 20, PP III insists that "frozen" is incorrect:

> "and of course we wouldn't just say frozen we'd say deep
> frozen",

obviously suffering interference from the German "tiefgefroren".
PP IV also discards "frozen", presumably also doubting its
validity, and replaces it with "out of the deep-freeze".

The only clear instance of interference on the syntactic plane
occurs in relation to TU 30, where PP III used a German form of
negation (which is that proposed by METAL), while all other
participants changed this to the correct English-language form. In

METAL's translation of this TU, the noun object is negated, corresponding directly to the noun negation in the ST. The insertion of the negative particle undoubtedly constitutes the correct negation of the German sentence. However, as made clear by Quirk et al., the correct method of negating an English imperative is to add an initial imperative marker: "do not" or "don't" [11]. PPs I, II and IV did not hesitate to replace the incongruous "use no" by "do not use", and PP IV remarked: "the machine got the imperative wrong". PP III, on the other hand, was primarily preoccupied by his search for a lexical equivalent for "scharf", and did not voice any reaction, positive or otherwise, to the negation of the verb in the MT, obviously not recognising its irregularity. He subsequently produced two versions of the TU, both of which retained METAL's incorrect imperative form. In this TU, all four PPs changed the MT "and" to "or", recognising that the scope of negation extended beyond the conjunction to include the second adjective and, of course, the plural noun, and that "or":

> "tends to replace 'and' in contexts which we have called
> 'non-assertive'" [12].

Thus, the syntactic linguistic interference here is limited and, as already mentioned, this is the only clear example of such interference.

RECOMMENDATIONS — NECESSARY POST-EDITING SKILLS

This study has brought to light some necessary requirements for successful post-editing.

(1)   SOURCE LANGUAGE COMPETENCE

Contrary to the views expressed by Nirenburg [13] and Johnson and
Whitelock [14] (see 1.2), excellent SL competence is of paramount
importance in post-editing. The need to refer to the SL text is
clear from the TAPs, and the above statistics and the analysis of
how syntactic changes are carried out by PPs are evidence of this.
PPs III and IV obviously have a better command of German than PPs I
and II and consequently accomplish the post-editing task with fewer
and shorter pauses than PPs I and II. They did not experience
difficulty understanding the SL text and required reference books
only as a means of verifying their own suggested equivalents or in
order to find a collocationally appropriate lexical item.

(2)   CONTRASTIVE KNOWLEDGE

As an extension of (1), this study has shown that contrastive
knowledge of SL and TL is advantageous in post-editing. This
sort of knowledge facilitates the execution of changes like the
conversion of a German nominal form into a corresponding English
verbal one, or of the German recessive passive, discussed in
Chapter 2, into an English modal passive. Although all four
participants possessed such knowledge, PP III applies it most
effectively to the post-editing process. It is obvious from his
TAP that he makes most reference to syntax and the problems
involved in rendering a SL structure in the TL. The contrastive
knowledge possessed by PPs I and II is necessarily limited by their
general SL deficiencies.

(3)   AWARENESS OF TEXT-LINGUISTIC ASPECTS

Linked to contrastive knowledge is familiarity with and application
of the notion of text type. Chapter 4 revealed that PP IV was most
aware of this, with PP III also demonstrating some consideration
for the textual aspect. This may be linked to professional
translating experience. Both PPs III and IV, having translated
professionally, are probably more conscious of the destination and
intended function of the version they are producing. They know,
for example, what the typical phrase towards the end of operating
instructions is and therefore produce an acceptable rendering of
"Änderungen vorbehalten" (TU 32), whereas PPs I and II do not
deliberate on the text type they are post-editing in order to find
the formulation usually employed therein. Alternatively, PPs I and
II may not have had sufficient experience of texts of this nature
to be able to produce an adequate rendering. Not only do they lack
professional translating experience, but they are also considerably
younger than either PP III or PP IV, and have, for example,
probably bought few electrical appliances, and consequently read
few instruction booklets. This is also related to knowledge of the
subject area, discussed in the next point.

It is interesting to observe that PP IV is most mindful of textual
considerations and is also the only PP not immersed in translation
studies at the time of the experiment. This does not necessarily
cast doubt on translators' ability to post-edit. However, in this
case, PP IV's long experience in language, together with his
German-language proficiency is of more avail than the almost
inevitably sentence-bound translation activity within the classroom

with which PPs I, II and III were most familiar, and which often
places too little emphasis on text type and function, and the text-
linguistic aspect of language processing.

(4) SUBJECT AREA KNOWLEDGE

The primary indication of lack of knowledge of the subject area is
the presence of lexical difficulties. Although all four PPs were
familiar with the appearance of and method of operating a toaster,
they experienced some difficulties with terms such as "Lifttaste",
"stufenloser Regler", "Bräunungsgrad", "funkentstört", etc. As
already highlighted, my main concern was syntax. However, some of
the processing of syntactic units was undoubtedly influenced by
difficulties encountered in the processing of lexical items. PPs I
and II were simply not familiar with the correct technical terms
used, and therefore relied on the MT or on reference books for
these terms. PP III, having the most technical background was most
able to cope with these lexical items and was also in the best
position to make intelligent and discerning use of technical
dictionaries. An example of this is the fact that he was capable
of deciding that "continuous" was most appropriate for "stufenlos",
although both the MT and the RB offered "stepless" as an
equivalent. PP IV attributes his inability to produce the correct
terms to the fact that he had not lived in an English-speaking
environment for many years.

The above four requirements are common to both post-editing and
translating. However, post-editing is essentially a different

activity and as such requires the following additional skills which
are either unnecessary, or not as pertinent in translating.

(5) FAMILIARITY WITH THE MT SYSTEM

Piggott highlighted the usefulness of being familiar with the
workings of the MT system, the output of which one is post-editing
[15] (see 1.2). It can be seen from the way in which some MT
problems were dealt with that knowledge of the typical errors of
the system would increase the automaticity with which changes are
carried out. The element of surprise and, more importantly,
puzzlement on the part of PPs which is at times obvious from the
TAPs would thus be eliminated, and post-editing would become,
perhaps more routine, but presumably also less taxing.

(6) FAMILIARITY WITH ONE'S OWN LINGUISTIC SYSTEM!

Having knowledge of the MT system's idiosyncrasies should be
supplemented with knowledge of one's own linguistic proclivities.
These were seen, for example, in Chapter 2 with regard to
active and passive forms. Such personal preferences are by no
means detrimental, if the post-editor is aware of them and does not
allow the version s/he produces to be inaccurate as a result of
her/his stylistic tendencies. PP IIs tendency to use the active
voice does not cause difficulties in this case, but could
conceivably result in the contravening of stylistic norms in
another text type.

(7)   DISTANCE FROM MT -- TL COMPETENCE

A danger inherent in post-editing MT is excessive dependence on the
MT version. This had been illustrated in the discussion of the
"never-mind-it'll-do" syndrome, where PPs ceased to look for a
better equivalent than that offered by the MT, despite knowing that
this was not ideal. There is also a tendency for PPs to process
the text within the boundaries provided by METAL, ie. within TUs.
While the format of MT output predetermines the mode of processing,
as already pointed out in Chapter 4, post-editors should ideally
have the ability to distance themselves from the MT structures. PP
IV does this most successfully, moving away, for example, from
"determine your selected browning degree..." in TU 19 to produce
"get your toast perfect...". However, in general, PPs are rather
influenced by MT lexis and syntax. It is difficult for post-
editing to be otherwise, but it is clear that post-editors must
keep meaning rather than form foremost in their minds, and must
endeavour to convey this meaning as efficiently as possible, making
use of the MT when this is possible but not being reluctant to
discard it if necessary. Needless to say, excellence in the target
language is a prerequisite of both translating and post-editing,
but is possibly even more significant in the latter, since exposure
to MT output invariably influences one's perception of the
correct/defective nature of TL formulations.

(8)   TOLERANCE

According to Wagner [16], tolerance was the characteristic often
lacking in post-editing translators (see 1.2). Fortunately(!) this

particular study did not elicit cries of frustration or irritation
from PPs. Since they had no prior experience of post-editing, they
were rather curious and interested in the output. Moreover, they
were not exposed to sufficiently long texts to become irritated by
the consistency with which the system produces errors. However, in
the longer term, this could indeed be problematic, but the
frustration factor could be lessened somewhat by knowledge of the
way in which the system operates, and the reasons for the errors.

FINAL REMARKS

In conclusion, and to return to the question posed by Wagner
concerning the ideal post-editor, I believe that possession of the
first four requirements above enables one to post-edit. However,
access to the other capabilities outlined above enhance and improve
both the post-editing process and the quality of the product
generated by this process. Therefore a translator who could also
meet the second set of requirements could indeed make a good post-
editor. Blatt et al. [17] suggested a teaching plan entailing both
pre- and post-editing activities. Such a plan, incorporated into
translator training would serve to prepare future translators for
post-editing activities. The likelihood that would-be translators
could be required to post-edit is constantly becoming greater with
the more widespread availability of operational MT systems, and
preparation for this eventuality is therefore important.

The products generated by PPs are, in many cases, syntactically
similar, as exemplified by the use and positioning of subordinate
clauses seen in many of the TUs discussed in Chapter 3. However,

one of the outcomes of this study has been the realisation that PPs
may arrive at similar products in very different ways. They
approach the task differently, PP IV, for example, usually working
from the MT unless this is not possible, PPs I, II, and III
frequently reading the ST before the MT, and basing their post-
editing to a considerable extent on the ST, even when the MT could
have been understood and edited without recourse to the ST. The
steps which PPs take in order to carry out their post-editing of a
TU are also very varied, both in number and in nature. Some PPs
encounter problems where others do not, some can draw
correspondences and execute certain changes automatically, where
others cannot. In spite of this, the product of entirely different
sets of process may be strikingly similar (eg. TUs 5, 20, and many
more).

The incorporation of post-editing into translator training should
therefore take into consideration the simple, yet often neglected,
fact that there are many different and interesting ways of arriving
at one particular solution. An awareness of the individuality of
processes often underlying a uniformity of products is important if
post-editing is to continue to be a significant aspect of MT
research, and if efforts to improve the quality of MT output, by
non-computational means, are to be successful. Allen Tucker very
succinctly captures the essence of machine translation:

> "Machine translation is, truly, one of the most profound and
> intrinsically interdisciplinary research problems in the
> history of scientific inquiry. Its effective solution will
> not be realised until scholars from several fields
> (linguistics, software engineering, artificial intelligence,
> and psychology) can effectively merge their creativity to
> achieve this common goal" [18].

If one agrees with this view, and I do, then the continued
investigation of post-editing, from a combined linguistic and
cognitive standpoint, together with the practical application of
ensuing results, must constitute a move in the right direction.

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7. APPENDICES

APPENDIX A

SOURCE TEXT

Braun
control-sensor toaster
HT 55   Type 4104

Gebrauchsanweisung

Betrieb (alle Modelle)
Hinweis: Der Braun Toaster läßt sich nur bei eingerasteter Krümelschublade ⑤ betreiben.

Schalten Sie den Toaster vor dem Erstgebrauch durch Herunterdrücken der Lifttaste ③ zunächst einige Male ohne Brot bei geöffnetem Fenster ein.

Sie können alle Brotsorten toasten. Mit Hilfe des stufenlosen Reglers ② können Sie den gewünschten Bräunungsgrad (1: hell bis 6: dunkel) einstellen. Die Lifttaste wird beim Einschalten elektro-magnetisch festgehalten und nach Beendigung des Toastvorganges automatisch angehoben. Sie können den Toastvorgang durch Drücken der Stop-Taste ① unterbrechen; das Gerät wird ausgeschaltet. Die Lifttaste nicht hochschieben.

Toasten einer Brotscheibe
Hinweis: Wie bei allen Doppelschlitz-Toastern kann es beim Toasten von nur einer Scheibe Unterschiede in der Bräunung beider Seiten geben. Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere Einstellung der Bräunung wählen.

Braun control-sensor HT 55
Beim HT 55 mißt der eingebaute Sensor die Oberflächentemperatur des Brotes und steuert danach die Toastzeit. Ermitteln Sie Ihren gewünschten Bräunungsgrad mit Hilfe des Reglers. Bei gleicher Brotsorte sorgt der Toaster für gleichbleibende Bräunung, gleich ob das Brot frisch, älter oder gefroren ist. Es muß dazu jedoch in beiden Schlitzen Brot gleicher Sorte und Beschaffenheit verwendet werden.

Falls Ihre Toaste zu hell ausfallen, wiederholen Sie den Toastvorgang mit entsprechend höher gestelltem Regler ②.

Sollten Sie nur eine Scheibe toasten, legen Sie diese bitte in den mit dem Sensorpunkt ④ gekennzeichneten Schlitz.

Der Brötchenaufsatz muß mit den Federbügeln einrasten (b/c).

Bei Verwendung des Brötchenaufsatzes schaltet der Toaster unabhängig vom Regler automatisch auf eine Festzeit um. Das Einschalten erfolgt ebenfalls mit der Lifttaste.

Reinigung (alle Modelle)
Ziehen Sie vor jeder Reinigung den Netzstecker. Für die Reinigung des Gehäuses genügt ein feuchtes Tuch. Verwenden Sie keine scharfen und scheuernden Reinigungsmittel. Krümelschublade gelegentlich herausziehen (a) und leeren.

Änderungen vorbehalten.

Funkentstört nach den Richtlinien 76/889 mit Ergänzungsrichtlinie 82/499 EWG.

APPENDIX B

SOURCE TEXT AND MACHINE TRANSLATION — "MIX" OUTPUT

[1 {Braun control-sensor toaster HT 55 Type 4104}]
[1 Braun control-sensor toaster HT 55 Type 4104]

[2 Gebrauchsanweisung]
[2 Instructions(Operating instructions)]

[3 Betrieb (alle Modelle)]
[3 Business(Operation) (all models)]

[4 Hinweis:]
[4 Note:]

[5 Der {Braun} Toaster läßt sich nur bei eingerasteter Krümelschublade (5)
betreiben.]
[5 The Braun toaster lets only operate in the case of locked crumb compartment
(5).]

[6 Schalten Sie den Toaster vor dem Erstgebrauch durch Herunterdrücken der
Lifttaste (3) zunächst einige Male ohne Brot bei geöffnetem Fenster ein.]
[6 I Pre-connect you the toaster before the primary use through pressing down
lift key (3) at first some times without bread in the case of opened window I
ein. I]

[7 Sie können alle Brotsorten toasten.]
[7 You can toast all bread sorts.]

[8 Mit Hilfe des stufenlosen Reglers (2) können Sie den gewünschten
Bräunungsgrad (1: hell bis 6: dunkel) einstellen.]
[8 I You can requested browning degree with the aid of stepless controller (2) I
(1: I brightly to 6: dark I) I einstellen. I]

[9 Die Lifttaste wird beim Einschalten elektromagnetisch festgehalten und nach
Beendigung des Toastvorganges automatisch angehoben.]
[9 The lift key is observed electro-magnetically(electromagnetic) in the case of
switching on and is lifted automatically at the completion of the toasting
process.]

[10 Sie können den Toastvorgang durch Drücken der Stop-Taste (1) unterbrechen;
]
[10 You can interrupt the toasting process through pressing stop key (1);]

[11 das Gerät wird ausgeschaltet.]
[11 the device is switched off.]

[12 Die Lifttaste nicht hochschieben.]
[12 Do not push up the lift key.]

[13 Toasten einer Brotscheibe]
[13 Toasting a slice of bread]

[14 Hinweis:]
[14 Note:]

[15 Wie bei allen Doppelschlitz-Toastern kann es beim Toasten von nur einer
Scheibe Unterschiede in der Bräunung beider Seiten geben.]
[15 As there can be differences in the browning of both pages(side) in the case
of all two-slice toasters when the toasting only a slice.]

[16 Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere
Einstellung der Bräunung wählen.]

[16 You were to therefore select the one setting lower of the browning when the
toasting only a slice.]

[17 (Braun) control-sensor HT 55]
[17 | Braun | control-sensor | HT 55 |]

[18 Beim HT 55 mißt der eingebaute Sensor die Oberflächentemperatur des Brotes
und steuert danach die Toastzeit.]
[18 In the case of HT 55, the built-in sensor measures the surface temperature
of bread and controls the toasting time after this.]

[19 Ermitteln Sie Ihren gewünschten Bräunungsgrad mit Hilfe des Reglers.]
[19 Determine your requested browning degree with the aid of the controller.]

[20 Bei gleicher Brotsorte sorgt der Toaster für gleichbleibende Bräunung,
gleich ob das Brot frisch, älter oder gefroren ist.]
[20 | In the case of same bread sort, the toaster provides soon whether the
bread is fresh for invariable browning |, | older or frozen | ist. |]

[21 Es muß dazu jedoch in beiden Schlitzen Brot gleicher Sorte und
Beschaffenheit verwendet werden.]
[21 Nevertheless, it has to be used to this in both slots of sort same bread and
nature.]

[22 Falls Ihre Toaste zu hell ausfallen, wiederholen Sie den Toastvorgang mit
entsprechend höher gestelltem Regler (2).]
[22 If your toasts turn out too brightly, you repeat the toasting process with
controller (2) set up more highly correspondingly.]

[23 Sollten Sie nur eine Scheibe toasten, legen Sie diese bitte in den mit dem
Sensorpunkt (4) gekennzeichneten Schlitz.]
[23 If you were to only toast a slice, you please set these into the slot
characterised with sensor point (4).]

[24 Der Brötchenaufsatz muß mit den Federbügeln einrasten (b/c).]
[24 The grid for rolls has to lock with the spring clamps (b/c).]

[25 Bei Verwendung des Brötchenaufsatzes schaltet der Toaster unabhängig vom
Regler automatisch auf eine Festzeit um.]
[25 The toaster changes over independently of the controller during use of the
grid for rolls automatically to a fixed time.]

[26 Das Einschalten erfolgt ebenfalls mit der Lifttaste.]
[26 Switching on also occurs with the lift key.]

[27 Reinigung (alle Modelle)]
[27 Cleaning (all models)]

[28 Ziehen Sie vor jeder Reinigung den Netzstecker.]
[28 Pull the power plug before(in front of) every cleaning.]

[29 Für die Reinigung des Gehäuses genügt ein feuchtes Tuch.]
[29 A moist cloth suffices for the cleaning of the casing.]

[30 Verwenden Sie keine scharfen und scheuernden Reinigungsmittel.]
[30 Use no keen(sharp) and scouring cleaning agents.]

[31 Krümelschublade gelegentlich herausziehen (a) und leeren.]
[31 Pull(Withdraw) out crumb compartment occasionally (a) and empty.]

[J2 Änderungen vorbehalten.]
[J2 Reserve changes.]

[J3 Funkentstört nach den Richtlinien 76/889 mit Ergänzungsrichtlinie 82/499
EWG]
[J3 I Interference screening's according to(after) the guidelines I 76/889 I
with supplement guideline I 82/499 EWG I]

APPENDIX A

SOURCE TEXT

**Braun
control-sensor toaster
HT 55**   Type 4104

Gebrauchsanweisung

Betrieb (alle Modelle)

Hinweis: Der Braun Toaster läßt sich nur bei eingerasteter Krümelschublade ⑤ betreiben.

Schalten Sie den Toaster vor dem Erstgebrauch durch Herunterdrücken der Lifttaste ③ zunächst einige Male ohne Brot bei geöffnetem Fenster ein.

Sie können alle Brotsorten toasten. Mit Hilfe des stufenlosen Reglers ② können Sie den gewünschten Bräunungsgrad (1 : hell bis 6 : dunkel) einstellen. Die Lifttaste wird beim Einschalten elektro-magnetisch festgehalten und nach Beendigung des Toastvorganges automatisch angehoben. Sie können den Toastvorgang durch Drücken der Stop-Taste ① unterbrechen, das Gerät wird ausgeschaltet. Die Lifttaste nicht hochschieben.

Toasten einer Brotscheibe

Hinweis: Wie bei allen Doppelschlitz-Toastern kann es beim Toasten von nur einer Scheibe Unterschiede in der Bräunung beider Seiten geben. Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere Einstellung der Bräunung wählen.

Braun control-sensor HT 55

Beim HT 55 mißt der eingebaute Sensor die Oberflächentemperatur des Brotes und steuert danach die Toastzeit. Ermitteln Sie Ihren gewünschten Bräunungsgrad mit Hilfe des Reglers. Bei gleicher Brotsorte sorgt der Toaster für gleichbleibende Bräunung, gleich ob das Brot frisch, älter oder gefroren ist. Es muß dazu jedoch in beiden Schlitzen Brot gleicher Sorte und Beschaffenheit verwendet werden.

Falls Ihre Toaste zu hell ausfallen, wiederholen Sie den Toastvorgang mit entsprechend höher gestelltem Regler ②.

Sollten Sie nur eine Scheibe toasten, legen Sie diese bitte in den mit dem Sensorpunkt ④ gekennzeichneten Schlitz.

Der Brötchenaufsatz muß mit den Federbügeln einrasten (b/c).

Bei Verwendung des Brötchenaufsatzes schaltet der Toaster unabhängig vom Regler automatisch auf eine Festzeit um. Das Einschalten erfolgt ebenfalls mit der Lifttaste.

Reinigung (alle Modelle)

Ziehen Sie vor jeder Reinigung den Netzstecker. Für die Reinigung des Gehäuses genügt ein feuchtes Tuch. Verwenden Sie keine scharfen und scheuernden Reinigungsmittel. Krümelschublade gelegentlich herausziehen (a) und leeren.

Änderungen vorbehalten.

Funkentstört nach den Richtlinien 76/889 mit Ergänzungsrichtlinie 82/499 EWG.

APPENDIX B

SOURCE TEXT AND MACHINE TRANSLATION — "MIX" OUTPUT

[1 (Braun control-sensor toaster HT 55 Type 4104)]
[1 Braun control-sensor toaster HT 55 Type 4104]

[2 Gebrauchsanweisung]
[2 Instructions(Operating instructions)]

[3 Betrieb (alle Modelle)]
[3 Business(Operation) (all models)]

[4 Hinweis:]
[4 Note:]

[5 Der (Braun) Toaster läßt sich nur bei eingerasteter Krümelschublade (5)
betreiben.]
[5 The Braun toaster lets only operate in the case of locked crumb compartment
(5).]

[6 Schalten Sie den Toaster vor dem Erstgebrauch durch Herunterdrücken der
Lifttaste (3) zunächst einige Male ohne Brot bei geöffneten Fenster ein.]
[6 I Pre-connect you the toaster before the primary use through pressing down
lift key (3) at first some times without bread in the case of opened window I
ein. I]

[7 Sie können alle Brotsorten toasten.]
[7 You can toast all bread sorts.]

[8 Mit Hilfe des stufenlosen Reglers (2) können Sie den gewünschten
Bräunungsgrad (1: hell bis 6: dunkel) einstellen.]
[8 I You can requested browning degree with the aid of stepless controller (2) I
(1: I brightly to 6: dark I) I einstellen. I]

[9 Die Lifttaste wird beim Einschalten elektromagnetisch festgehalten und nach
Beendigung des Toastvorganges automatisch angehoben.]
[9 The lift key is observed electro-magnetically(electromagnetic) in the case of
switching on and is lifted automatically at the completion of the toasting
process.]

[10 Sie können den Toastvorgang durch Drücken der Stop-Taste (1) unterbrechen;
]
[10 You can interrupt the toasting process through pressing stop key (1);]

[11 das Gerät wird ausgeschaltet.]
[11 the device is switched off.]

[12 Die Lifttaste nicht hochschieben.]
[12 Do not push up the lift key.]

[13 Toasten einer Brotscheibe]
[13 Toasting a slice of bread]

[14 Hinweis:]
[14 Note:]

[15 Wie bei allen Doppelschlitz-Toastern kann es beim Toasten von nur einer
Scheibe Unterschiede in der Bräunung beider Seiten geben.]
[15 As there can be differences in the browning of both pages(side) in the case
of all two-slice toasters when the toasting only a slice.]

[16 Sie sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere
Einstellung der Bräunung wählen.]

[32 Änderungen vorbehalten.]
[32 Reserve changes.]

[33 Funkentstört nach den Richtlinien 76/889 mit Ergänzungsrichtlinie 82/499
EWG]
[33 | Interference screening's according to(after) the guidelines | 76/889 |
with supplement guideline | 82/499 EWG |]

APPENDIX C

THINKING-ALOUD PROTOCOLS ▪ PP I

▪ Braun control-sensor toaster H T five five type 2.5 sensor toaster
1.1 okay first sentence 1.2 okay 1.4 Braun control sensor 2.5 toaster
2.4 H T five five 2.3 four one O four that's fine 3.6
Gebrauchsanweisung instructions operating instructions 3.8 perhaps
instructions for use 9.5 three Betrieb alle Modelle (?)
Modellsbetrieb 2.3 Betrieb 5.3 Betrieb alle Modelle? 14.6 business
operation all the models? 3.9 perhaps operation 2.2 of all models 7.1
number four Hinweis note 1.8 that's okay 3.8 the Braun Toaster läßt
sich ein 1.1 eingerast Krümelschublade betreiben 1.5 (?) lets only
operate in the case of locked crumb compartment lets only operate
that's wrong 20.3 puh der Braun läßt sich the Braun toaster lets only
operate in the case of locked crumb compartment God 1.0 the Braun
toaster läßt sich 2.7 only operates nur bei eingerasteter
Krümelschublade 4.6 Braun toaster 6.9 only operates 3.0 in the case
of locked crumb compartment hmhm(r) 10.0 eingerasteter (RB 1:
einrasten p. 199) 47.3 eingerasteter einrasten 1.5 to engage 1.7 lets
only operate in the case of locked crumb 4.4 the Braun toaster
operates only 2.5 in the case 2.3 eingerasteter 7.2 hmhm(r) 5.2 the
Braun toaster 7.8 locked 8.4 Krümelschublade 13.8 hm(r) come back to
it number six schalten Sie den Toaster hm(r) hmhm(a) (clears throat)
zunächst einige Male ohne Brot bei geöfftem Fenster ein 1.2 precorrec
precorrect you wrong the toaster before the primary use through
pressing down 1.9 the key 2.2 at first sometimes without bread in the
case of open window 1.0 hm(am) 3.9 schalten Sie den Toaster 1.3
preconnect you vor dem Erstgebrauch 2.6 preconnect you the toaster
before the primary use 6.4 through pressing down the lift key 2.9
preconnect 3.3 switch on or 1.0 hm(r) 13.9 put the toaster 1.7 into
operation 2.5 vor dem Erstgebrauch (sighs) 3.9 before first using 2.5
before first using the toaster 2.8 before using the toaster for the
first time 15.4 before using toaster for the first time 11.4 switch
it on 2.1 by pressing 5.3 pressing the 1.0 Lifttaste? 2.3 the lift
key? 3.2 hm(r) 2.4 at first sometimes without bread in the case of
open window zunächst einige Mal 4.2 at first some times without bread
in the case of open windows in the case of that's wrong 1.0 with the
window open 2.0 before using toaster for the first time switch it on
by pressing the 2.3 Lifttaste? 15.7 preconnect you the toaster before
7.6 zunächst einige Mal 4.6 then 9.7 use the toaster a few times 10.5
without actually 7.3 putting in bread 1.2 this must be done 7.7 with
the window open 1.0 (sighs) 4.4 window open 2.2 before using the
toaster for the first time switch it on by pressing the Lifttaste (RB
1: Lifttaste p. 437) 30.6 Lifttaste (sighs) 2.1 liften to lift (tuts)
3.5 lift or (?hoist) the lift button 2.9 hmhm(a) 2.8 before using
toaster for the first time switch it on by pressing the 10.4 hm(r)
the button marked 2.0 lift 9.0 use the toaster a few times without
actually putting in bread this must be done in a room 1.0 with the
open 1.0 the window opened 1.3 (sighs) 5.7 okay number seven 2.3 Sie
können alle hm(r) you can toast all bread sorts 1.1 Sie können alle
5.1 all types of bread may be toasted 10.5 number eight 1.1 mit Hilfe
des stufen Reglers können sie den gewünschten Bräunungsgrad 1.9
(clears throat) you can requested wrong 1.2 browning degrees with the
aid of the stepless controller stufenlos 1.4 oh dear 1.3 (?) 4.5 you

can choose the degree of browning with the aid of the stepless
controller 13.9 hm(r) (?) 1.3 you can choose you can request except
the word order isn't right there but 1.5 you can choose 6.1 the
browning degree (clears throat) the degree of browning 1.8 hm(a)
that's okay you can choose the degree 4.9 of browning 3.1 the aid of
the stepless controller 1.6 (sighs) what's that mean? 5.7 with the
aid is okay with the aid of 2.3 stufenlosen Reglers 1.5 Relger is
controllor regulator stufenlosen? 8.8 (?) 1.3 light 2.7 brightly no
1.2 to six dark one (clears throat) 1.3 einstellen? 1.8 einstellen?
5.3 oh I see! 11.6 one hell bis sechs dunkel 12.3 one to six 2.6 you
can choose the degree of browning with the aid of 4.5 the 6.3
something regulator 3.5 controller is okay as well 4.4 I E 9.5 one
hell bis sechs 9.9 I E lightly browned to six 16.7 hm(r) does it
make sense you can choose the degree of browning with the aid lightly
browned one to six 4.4 and darkly browned 6.4 six upwards 3.3 you can
choose the degree of browning with the aid of the something regulator
1.0 the stepless? hm(r) 5.0 come back to it 2.1 nine 1.4 the
Lifttaste wird beim Einschalten elektromagnetisch festgehalten und
automatisch angehoben 1.2 the lift key is observed 2.8 electromag
magnetically in the case of switching on and is lifted automatically
at the completion of the the toasting process hm(a) I'd say that
sounds okay but the lift key is observed 1.6 beim Einschalten
festgehalten no! the lift key is observed 1.7 is controlled? 2.0
festgehalten? hmhm(a) maintained 1.1 in the case of switching on when
switched on and is lifted automatically 1.2 at the completion of the
toasting process 4.9 the lift key 7.6 the lift key 1.8 do you have a
key on a toaster? 2.1 hmhm(a) 2.2 the lift button is observed 4.3 the
lift button 6.5 is 1.5 controlled? 3.3 electromagnetically controlled
2.6 hm(r) is that right? 6.7 is controlled 6.5 hm(a) I think it's
okay is electromagnetically controlled 1.7 it's not very clear though
2.6 electromagnetically controlled 11.9 the lift button is
electromagnetically controlled 3.7 beim Einschalten? 12.0 is lifted
automatically the lift button is electromagnetically controlled 9.5
beim Einschalten does that mean of the whole toaster or of the
button? 1.7 itself? 1.5 (tuts) 3.0 hm(r) of the toaster I'd say the
lift button is electromagnetically control 1.3 (sighs) 4.3
festgehalten 2.7 maintained 7.8 hmhm(r) the lift button is
electromagnetically controlled maybe that's okay 5.3 beim Einschalten
11.0 beim Einschalten just means for the button therefore is
electromagnetically controlled could be okay could cover the whole
thing 1.0 und nach Beendigung des Toast hm(r) 1.7 and is lifted
automatically at the completion of the toasting process 27.1 I E 3.7
it is held in place 5.3 after being 1.3 switched down? pressed down?
5.0 pressed down 6.3 ss hm(r) and is lifted automatically 1.0 and
automatically 11.3 (sighs) and automatically pops up hm(r) 8.7 hm(r)
4.7 I think pops up 4.8 at the completion after toasting 10.5
(sighs) 7.8 at the completion of the toasting process I think is okay
1.8 the completion 1.6 of the toasting process 2.7 hm(r) 1.4 that
sounds awful the lift button is electromagnetically controlled I E it
is held in place after being pressed down and automatically pop pops
up at the completion of the toasting process hm(r) 5.6 when pressed
down the lift button is held in place by an electromagnetic process
1.2 and automatically pops up after completion of the toasting
process 1.0 two processes no 2.6 hm(r) 3.4 when pressed down 5.7 the
lift button 2.2 is held in place 7.0 in place electromagnetically

hm(a)   sounds   okay   I   think   1.3   electromagnetically   4.2   and
automatically   pops up automatically?   1.8 automatically should   come
before   the verb pops up 2.3 automatically 4.6 at the   completion   on
completion 1.7 on completion 4.4 of the toasting process 1.5   that
sounds   better   still don't know what the lift button is   though   1.2
okay   number   ten 1.5 sie können den Toastvorgang durch   Drücken   der
Stoptaste   unterbrechen   you   can interrupt the toasting   process   by
pressing   the stop key 4.9 well that's fine 1.4 through pressing   the
stop   key by pressing the stop key 1.0 wrong preposition 1.3 you   can
interrupt 2.7 you can interrupt?   you can stop?   1.7 you can stop the
toasting   process   2.7   at any stage 1.7 you can   stop   the   toasting
process   10.2   at any stage 1.8 by pressing 1.9 the stop key 1.1   key
again!   I don't think key is the right word stop button?   5.3   eleven
2.7   das   Gerät wird aus the device will is switched off   the   device
will   be switched off 1.2 is the device will be switched off 2.7   the
device is then switched off?   5.8 the device is then switched off 1.6
yeh   3.3   bit   clearer   I   think   twelve 1.3 die   Lifttaste   nicht
hochschieben 1.1 hm(r) do not push up the lift key 5.0 die Lift nicht
hochschieben 1.0 yeh I think that's okay 3.5 push up 1.2 push up a bu
push   up the lift key 1.3 the lift button 1.7 hm(r) I think it's okay
though   1.3   thirteen   2.6 toasten I   see   they're   instructions   1.1
toasting a slice of bread 5.1 to   toast a slice of bread?   toasting a
slice of bread 1.4 how to toast a slice of bread hm(r) 3.3 toasting a
slice   of   bread is fine I think 2.6 toasting a slice of   bread   2.1
(sighs) okay number fourteen 4.5 Hinweis note 1.3 is that okay?   note
notes   instr   note   1.7   fifteen   2.7   wie   bei   allen
Doppelschlitztoastern   kann es beim Toasten nu von nur einer   Scheibe
Unterschiede in der Bräunung beider Seiten geben 1.0 as there can   be
no differences in the browning of both of both pages ugh! in the case
of   all   two-slice toasters when the toast the toasting only a   slice
goodness 1.6   (sigh) as there can be   differences as   there   can   be
differences   in   the browning of both sides in the case of   all   two-
slice   toasters 1.3 when the toasting only a slice oh goodness!   1.9
wie bei allen Doppelschlitztoastern kann es beim Toasten 2.2 von   nur
einer   Scheibe Unterschiede in der Bräunung 1.7 oh I see!   8.2 so   if
you're   in   the   case   of 4.8 when using a toaster   2.0   a   two-slice
toaster   Doppelschlitztoaster   hm(a)   two-slice   toaster   3.1   when
toasting only one slice of bread in a two-slice toaster 1.7 there can
be   differences   2.2 okay that's a better way to start it   off   when
toasting   2.5 only one slice 2.3 of bread 3.1 in a two-slice   toaster
6.2   there can 6.0 be differences 4.3 in the degree of browning   8.9
in the degree of browning 3.0 of each side 6.0 when toasting only one
slice of bread in a two-slice toaster there can be differences in the
degree of browning 2.2 of the two sides 8.3 okay that'll do   sixteen
1.4 Sie sollten daher beim Toasten von nur eine Scheibe hm(r) 1.8 you
were   to therefore select the one setting lower of the browning   when
the   toasting   only a slice 2.6 you were to therefore select the   one
setting   lower   of the browning when the toasting only   a   slice   1.7
hm(r)   Sie   sollten   daher   beim   Toasten von die   nächstniedrige
Einstellung hm(r) okay therefore when no when toasting only one slice
of bread therefore you should choose 2.5 the die nächstniedrige? what
did   they say for that?   one setting lower hm(a) that's good 6.5 okay
when   toasting   only one slice of bread 1.1 therefore   when   toasting
therefore   1.6   therefore   when toasting 4.2   therefore   comma   when
toasting   one slice of bread 9.5 you should select 5.4 you should   sh

you   should   1.5 select 4.0 one setting lower 6.3 hm(a) 1.0   browning
hm(r) setting lower 2.0 for browning ach that sounds clumsy therefore
when toasting one slice of bread you should select one setting   lower
8.6 one setting lower 2.7 hm(r) 7.7 therefore when toasting one slice
of   bread   you should select one setting lower 1.7 for the degree   of
browning? (tuts) hm(a) 2.6 for the degree of browning 4.4 one setting
lower   than   what though?   8.2 one setting lower   than   usual?   1.4
therefore   when   toasting one slice of bread you sh 2.7   one   setting
lower   than   usual?   3.9 oh I don't know what it means it's not   very
clear in the text 2.8 okay 3.2 seventeen 1.4 Braun control-sensor 1.3
hm(a) same thing again 2.3 Braun 6.3 control-sensor 1.5 H T 1.7   five
five   1.9   eighteen   4.6 beim H T five five 1.1 mißt   der   eingebaute
Sensor   die Oberflächentemperatur 2.4 des Brotes und   steuert   danach
die   Toastzeit   1.9   in the case of H T five five   1.3   the   built-in
sensor   1.5 measures 1.5 the surface temperature 2.2 of the bread 1.2
and controls 1.1 the toasting time after this 1.2 in the case of H   T
five   five   the   built-in sensor 1.2 measures   1.3   the   surface
temperature   of   the bread and controls the toasting time after   this
1.1 hm(r) 1.6 yeh let me see in the   case of 1.4 in the case   of   is
wrong!   with?   1.0   the H T five five 1.7 has a built in sensor which
measures   2.5   right   2.7 the H T five five 2.4 has   a   built-in   3.9
sensor   4.2   which measures 4.7 the surface temperature   5.2   of   the
bread   need a def need a definite article there 1.5 and controls   the
toasting time after this 3.1 and control and from this controls?   and
from   this   am I using this controls 1.4 or in this way 2.0   hm(r)   I
don't   know in this way and from this controls 8.3 and from this   2.4
controls   2.3 the toasting time 2.4 toasting time 2.9 the duration of
toasting?   8.6 the H T five five has a built-in sensor which measures
the   surface   temperature of the bread and from   this   controls   the
toasting   time 3.7 toasting time 1.6 the length of the   toasting   1.5
process   3.2   hm(a)   1.0   okay nineteen 1.7   ermitteln Sie   Ihren
gewünschten   Bräunungsgrad mit Hilfe des Reglers determine your
requested   browning degree with the aid of the controller 1.2
determine   1.2   your   requested (tuts) no!   1.7 with the aid   of   the
controller   1.2   choose   1.0 determine 3.2 determine the degree of
browning 1.4 with the aid of the controller 1.0 determine the   degree
of   browning   with the aid of the controller   1.1 what did I call   it
last time?   controller or something? 1.5 regulator 5.6 hm(r) 2.3 rate
6.8   regulator sounds better than controller 2.9   nineteen   determine
your   requested browning the degree 1.5 determine the browning degree
with   the   aid of the regulator 2.3 you can   determine   the   browning
degree   by using the regulator 9.3 hm(a) to put it in the passive   is
probably   better 1.9 the degree of browning 4.9 can be regulated 4.4
no! can be determined 3.2 can be determined 7.9 by using 4.0 by using
the 1.7 regulator 4.9 the degree of browning can be determined 1.9 be
chosen?   5.0   determined 2.6   chosen perhaps the degree of   browning
can   be   determined chosen by using the regulator 2.0 hm(r)   11.0   ah
it's   okay   it's clear enough 1.0 bei gleicher Brotsorte sorgt   der
Toaster   für   Bräunung gleich ob das Brot frisch älter oder   gefroren
ist   in the case of s of the of same bread sort the toaster   provides
soon   whether   the bread is fresh for invariable browning older   or
frozen   ist   yuck 1.9 hm(r) 6.1 in the case of same bread   sorts   1.7
sorgt   der Toaster für gleichbleibende Bräunung 2.3 oh I see!   1.0 if
the same type of bread is being used the toaster 1.5 the toaster   2.9
puh   takes the same degree of browning 1.4   regardless of whether 1.0

the bread is fresh 2.2 älter 1.3 hm(r) älter? 2.5 not so fresh or frozen 14.6 if 6.5 in the case of the same bread if the same type of bread is being used 3.2 the toaster 1.4 hm(r) (?) that sentence the toasters provides 9.9 the toaster (sighs) 4.7 if the same type of bread is being used regardless of whether it is fresh not so fresh or frozen the toaster 3.4 the toaster tries to 4.9 hm(r) 6.6 if the same type of bread is being used 2.5 if the same type of bread is being used the toaster 2.2 provides (sighs) 2.5 how am I gonna say this? 8.2 when the same type of bread is being used 3.8 okay 1.8 when or if? 6.2 if when the same type of bread is being used 5.9 (sighs) 5.6 when 5.5 the same type of bread 1.9 is being used 7.3 regardless 11.3 of whether it is 1.9 fresh 1.8 not so fresh 4.3 frozen the toaster 2.9 will try 3.1 to obtain 1.7 the same degree of browning 4.0 the same degree 1.9 of browning 6.0 yeh(r) 3.3 maybe I should say fresh not so fresh frozen bread at the same time 2.4 is being used the toaster will try to obtain the same degree of browning 8.0 hm(r) 1.6 changing the sense there 1.8 (sighs) 5.3 when the same type of bread is being used 1.5 I think that's okay I don't think I've changed it 2.8 twenty-one 1.0 es muß dazu jedoch in beiden Schlitzen Brot gleicher Sorte und Beschaffen verwendet werden nevertheless it has to be used 1.6 to this in both slots of sort same bread and nature 2.4 es muß dazu jedoch in beiden gleicher Sort oh God! 3.3 es muß dazu jedoch 4.9 beiden Schlitzen Brot gleicher Sorte und Beschaffenheit verwendet werden 9.9 es muß dazu jedoch in beiden Schlitzen Brot 6.2 Schlitzen? 4.3 didn't I use this before? 4.8 page one page two 7.0 Schlitzen 9.0 don't know nevertheless it has to be used to this in both slots of same sort same bread and nature es muß dazu jedoch in beiden Schlitzen Brot 3.7 Beschaffenheit verwendet werden 8.6 beiden Schlitzen 3.5 ach so! es muß dazu jedoch in beiden Schlitzen pause Brot gleicher Sorte und Beschaffenheit verwendet 5.7 I see! 2.1 however 19.1 Beschaffenheit 2.5 however 11.4 the bread 5.7 however 5.2 however the bread 2.6 must be 4.9 the same type 2.6 and inserted 2.3 in the same manner 3.8 oh dear I don't know if that's what it means 1.0 the bread must however be of the same type and inserted in the same manner 1.7 hm(a) write however in there 1.2 the bread however 2.1 the bread however 1.6 must be 1.9 of the same 4.2 type 1.9 and be inserted 3.2 in the same manner 2.3 into the slots 7.7 the slots? (tuts) hm(r) the slots? 2.3 into the toasting slots 3.7 make it clearer 1.6 in the same manner 6.8 okay 3.9 this scribble 1.1 twenty-two 5.0 falls Ihre Toaste zu hell ausfallen wiederholen Sie den Toastvorgang mit entsprechend höher gestelltem if your toast turns out too brightly hm(am) you repeat the toasting process with the controller set up more highly correspondingly if your toast turns out 2.8 if your toast is not sufficiently brown hm(r) 4.1 then repeat the toasting process with the controller 2.4 mit entsprechend 1.2 with the controller set at a correspon 1.7 hm(r) set at a 1.7 (tuts) okay if your toast 2.4 if the toast if toast if toast 1.6 if your toast if toast 1.4 if your toast 6.6 your toast isn't sufficiently browned 5.5 is not sufficiently browned 3.7 repeat 4.9 repeat the toasting process 6.1 with the controller 2.9 with the controller set at a correspondingly higher level 3.7 with 9.7

(cassette change 1-2)

18.6 twenty-three 2.1 sollten Sie nur eine Scheibe toasten legen Sie
diese bitte in den mit dem Sensorpunkt 1.3 gekennzeichneten Schlitz
1.2 if you were 1.4 to only to only toast a slice if you want 1.4 to
toast just one slice you you please set these into the slot
characterised with the sensor point 1.5 legen Sie diese bitte in den
mit dem Sensorpunkt 2.1 ge Schlitz 1.6 ach so! 5.4 hmhm(a) 1.1 please
set these no that's rid totally wrong 1.0 if you require to only 5.3
if you wish 3.4 should you wish to 3.6 if you wish to toast 3.5 only
one slice of bread 5.3 legen Sie diese bitte in den mit dem 1.8 then
2.7 bitte please leave that out then 2.1 place this 1.4 then place it
in the slot 11.5 kennzeichneten? 5.0 plot which has the slot which
has 1.7 which has? does that cover 1.0 gekennzeichneten? hmhm(a) 1.7
then place it in the slot which has the the sensor 2.3 Sensorpunkt?
the sensor point 3.1 the sensor point (tuts) hmhm(a) if you wish to
toast only one slice of bread 1.6 comma then place it in the slot
which has the sensor point 2.7 yeh 1.9 twenty-four 2.0 der Brötch
der Brötchenaufsatz muß mit den Federbügeln einrasten 1.3 the grid
for rolls has to lock up 1.3 has to lock with the spring clamps 2.7
oh dear! 7.4 der Brötchenaufsatz 1.0 aufsetzen 1.7 muß mit den
Federbügeln einrasten 3.6 einrasten is to engage isn't that what I
said? 7.2 der Brötchenaufsatz muß mit den Federbügeln einrasten 9.6
the grid for rolls has to lock 1.1 with the spring clamps 3.8 Aufsatz
2.2 spring clamps? 11.6 Brötchenaufsatz (RB 1: Aufsatz p. 64) 27.3
let's see composition 1.5 top or upper part attachment 11.4 hm(r) der
Brötchenaufsatz 3.4 (?composition) 1.9 einrasten 2.1 Federbügeln the
spring clamps (RB 1: Feder p. 239) 22.8 feather quill 1.9 quill
spring 3.9 Bügeln (RB 1: Bügel p. 142) 17.3 Bügel 3.1 coat-hanger
stirrup 1.5 bow collector 3.2 clamp 2.1 hm(r) isn't much help to me
3.8 the grid for rolls 2.8 (sighs) 2.8 einrasten 2.6 (sighs) oh I
don't know what they 2.8 the grid for rolls 5.3 the grid 2.6 the
section of the toaster 1.8 the grid 2.5 grid for rolls 1.3 has to
lock has to be connected with the spring clamps 2.3 (sighs) 2.0 grid
rolls I don't know what this means rolls are R O L L S yes bread
rolls bread rolls 4.2 has to be connected 6.9 with the spring 1.8
clamps 3.1 twenty-five 2.3 bei Verwendung des Brötchenaufsatz
schaltet der Toaster unabhängig vom Regler automatisch auf eine
Festzeit um the toaster changes over independently (clears throat) of
the controller during use of the grid for rolls automatically 1.3 bei
Verwendung when using the 1.7 bread roll grid ah! schaltet der
Toaster unabhängig vom Regler 3.1 automatisch auf 3.9 when the grid
for rolls are being used the toaster 6.5 decides independently 1.3
when 3.2 the grid 1.7 when this grid 1.5 connect back to the last
sentence when this grid for rolls 4.1 is being used 2.9 the toaster
2.6 decides 7.8 on the toasting time 3.0 independent 2.4 decides
independent? 2.4 decides independently or independent? 3.2 when this
grid for bread rolls is being used the toaster decides 1.4
independently independent 3.5 when this grid for bread rolls is being
used the toaster 2.1 decides independently? 1.5 decides on the
toasting time independent 1.4 independent 1.5 dependent 1.6 pendent
2.3 independent of 6.8 the regulator 3.5 the regulator 2.2 when this
grid for bread bread rolls is being used the toaster decides on the
toasting time 1.8 independent of the regulator 14.1 ah dear! 1.5
when this grid for bread rolls is being used the toaster decides on
the toasting time comma independent of the regulator 3.2 be more

clear if I put in a comma but 1.0 when this grid for bread rolls 2.6
toaster 5.8 the toaster decides on the toasting time 8.9 hm(r) 3.3 oh
it'll do! twenty-six 1.3 das Einschalten 1.6 erfolgt ebenfalls mis
der mit der Lifttaste switching on also occurs with the lift key 1.9
erfolgt ebenfalls mit der Lifttaste switching on also occurs with the
lift key 2.1 das Einschalten 1.5 switching on also occurs with the
lift key 1.6 das Einschalten 3.6 ebenfalls 4.7 okay switching on for
this is alright 4.9 again switch on this process 1.6 again 4.2 to
initiate this 2.6 toasting process 2.3 toasting process 2.2 the lift
key 1.5 lift k hm(r) lift button 1.3 must be pressed 7.6 twenty-seven
1.4 Reinigung 1.5 cleaning 6.5 cleaning methods 5.0 cleaning methods
and I'll put all models 2.4 in brackets cleaning 1.5 hm(r) hang on
better make it to clean your toaster 8.8 brackets all models 1.6
twenty-eight 1.5 ziehen Sie vor jeder Reinigung den Netzstecker pull
the power plug before 1.9 before 1.7 always plug out the toaster 1.9
before cleaning 2.5 always 3.8 plug out the toaster 5.3 before
commencing to clean it before cleaning it always plug out the
toaster before 1.3 before cleaning it hm(r) it's okay 1.5 twenty-
nine 1.4 für die Reinigung des Gehäuses genügt ein feuchtes Tuch   a
moist cloth suffices for the cleaning of the casing 2.4 the casing
(tuts) 1.9 the outside 4.2 the outside of the toaster may be 2.7
cleaned simply 1.8 with a moist cloth 3.9 the outside 2.9 of the
toaster 4.8 may be cleaned 2.7 simply by using 6.7 a moist or a damp
cloth a moist cloth? damp cloth 1.4 better 4.7 okay what number was
that? 1.0 twenty-nine thirty 6.5 verwenden Sie keine scharfen und
scheurnden Reinigungsmittel 1.9 use no sharp or scouring cleaning
agents 2.3 do not use scouring sharp (tuts) acidic scouring 1.8
scharf 3.1 sour sharp acidic 1.2 acidic perhaps 1.8 do not use 4.6
acidic 2.1 or scouring 10.8 cleaning agents thirty one 2.1
Krümelschublade gelegentlich herausziehen und leeren pull withdraw
out the crumb compartment occasionally 1.2 and empty 2.3 pull out 1.3
withdraw? 1.0 pull out 1.3 or withdraw 2.9 withdraw? the crumb
compartment 3.4 occasionally the crumb compartment should be
occasionally withdrawn and emptied 7.6 the crumb 2.6 compartment 7.7
should be occasionally 3.3 pulled out 1.6 withdrawn? 2.6 taken out
taken out! 2.6 be taken out 1.0 emptied 6.8 thirty-two 1.7 Änderungen
vorbehalten 1.5 Änderungen vorbehalten? 2.0 reserve changes 2.4 come
back to it in a minute thirty-three 1.7 funkentstört nach den
Richtlinien 2.2 interference screening 1.1 according to after the
guidelines 1.5 hm(r) dear! 1.6 Änderungen vorbehalten reserve changes
11.7 Änderungen vorbehalten reserve 6.3 changes? 3.0 (sighs) funksi
funkentstört spark interference 1.5 (? not that I know what they
mean) 7.8 interference screening's 1.3 the guidelines 3.9 with
supplement guidelines 2.2 funkentstört 5.2 Änderungen vorbehalten
10.8 reserve changes (tuts) (RB 1: vorhalten p. 732) 32.5 vorhalten
vorbehalten 2.8 hm(r) to hold something 1.2 to hold up 1.1 to last
4.3 vorbehalten? (RB 1: vorbehalten p. 730) 7.3 vorbehalten 3.5 etwas
vorbehalten to reserve something 1.4 for oneself to reserve 5.1
reserved Änderungen sind ach so! vorbehalten subject to alterations
1.6 Änderungen vorbehalten 2.6 Änderungen vorbehalten 1.0 subject to
alterations (sighs) 2.6 hm(r) what's it mean though? 10.8 subject to
alterations oh it's not very clear in the text anyway! 2.4 subject to
alterations 2.9 alterations 8.6 (sighs) okay thirty-three
funkentstört nach den Richtliniens hm(r) 1.3 (?) 1.3 interference 1.2
screening's according to the guidelines 1.3 with supplement

guidings   2.2 funkentstört (RB 1: Funkentstörung p.   267) 24.6
Funkentstörung 2.2 suppression of interference 4.1 funkentstört 20.9
(tuts) suppression of interference 2.0 (sighs) 4.7 so interference is
suppressed according to the guidelines seventy-six with supplement
guidelines 2.3 interference suppression 1.5 interference screening?
1.8 Funkentstörung (yawns) 2.3 hm(r) 11.4 funkentstört suppression
4.6   so   sparking 1.0 interfered with 1.4 suppressed 2.3 (sighs) 3.4
interference suppression 2.0 interference screening 1.2 don't know
where they got screening 11.9 interference 3.3 screening it's
possibly a technical term 6.2 wonder would the machine have got it
right interference screening's? 4.4 according to the guidelines 3.7
interference screening according to the guidelines 2.0 (sigh) I'm
just gonna leave it screening 2.3 interference screening   2.6
according to 3.6 the guidelines 6.2 eight two 6.3 according to the
guidelines oops! 1.2 seven six eight eight nine 4.1 with supplement
4.8 supplement guideline 7.0 supplement guideline eight two 1.1 four
nine nine 1.2 E W G 1.0 okay 1.1 now what did I leave out? 8.1 page
one page two page three 6.8 five the Braun toaster 1.9 der Braun
Toaster läßt sich nur bei eingerast betrieben the Braun toaster lets
only operate in the case of locked crumb compartment 1.7 the Braun
toaster only operates 7.3 bei eingeraster Krümelschublade 1.7 The
Braun toaster only operates 6.2 Braun toaster only operates 8.5 when
2.0 the crumb compartment 9.4 is locked 1.9 the Braun toaster   only
operates when the crumb compartment is locked 5.9 hm(r) 6.3 operates
when the crumb compartment is locked hm(a) 1.4 is fixed no 4.3 fixed
wouldn't be good there is 5.5 Braun toaster only operates when the
crumb compartment is 9.9 the Braun toaster operates when the crumb
com   6.2 maybe it is locked I can't think of anything else 2.4 where
else?   2.4 number eight 1.2 mit Hilfe des stufe with the aid of the
stepless 12.1 stufenlosen stepless 2.5 hm(r) 10.6 oh dear stufenlosen
(RB 4: stufenlos p. 828) 41.0 stufenlos stepless 8.7 stepless 8.6 you
can choose the degree of browning with the aid of the 2.2 (sighs) 4.9
stepless controller 5.6 oh I don't know 1.9 stepless 5.9 what   else
did I leave out?   2.8 the device has been switched off toasting   a
slice of bread 1.7 when toasting only one slice of bread 3.3 the
Braun controls the degree of browning can be determined by the
regulator however the bread must be 1.0 that's okay 1.3 if your toast
isn't sufficiently browned if you wish to toast only one slice of
bread 8.1 okay I think that's everything ▪

THINKING-ALOUD PROTOCOLS ■ PP II

■ 5.1 Braun 1.7 control-sensor toaster 1.2 H T fifty-five 1.7 type
four one O four 4.1 control-sensor toaster 2.2 the exact same in both
languages? 2.8 control-sensor 1.2 the technical name I suppose 1.8
em(r) I'll leave it 7.7 control-sensor 4.7 toaster 8.0
Gebrauchsanweisung instructions 1.6 operating instructions two 2.7
em(r) use operating instructions or instructions for use 6.6 no
operating instructions I'll put down 11.3 Betrieb 1.2 alle Modelle
3.4 business operation? 1.5 it's definitely not business 1.1
operation though? em(r) 2.4 functioning how it works 6.5 em(r) 7.3
Betrieb operation operating instructions 4.5 or functioning 7.2
operation 7.9 or you could say how it works 7.3 for all models 5.6
Hinweis 1.3 note 6.5 to note 2.5 der Braun to Braun Toaster läßt
sich 1.5 the Braun toaster lets only operate in the case of locked
1.2 crumb compartment? 2.7 hm(r) doesn't make sense direct
translation from the German? 2.3 you don't need the lets the Braun
toaster 9.7 the Braun toaster operates 1.6 bei eingerasteter
Krümelschublade? 6.0 the Braun toaster only works when 2.0 in the
case of locked crumb compartment when the crumb compartment is
locked? eingerasteter 13.2 when the 2.5 oops! 14.6 is locked 5.2
oops! 11.2 crumb compartment is locked 1.5 just look up einrasten (RB
1: einrasten p. 199) 18.6 hm(r) 1.8 to engage 5.1 em(r) 3.5 bei
eingerasteter Krümelschublade engaged locked 2.3 schalten Sie den
Toaster vor dem Erstgebrauch durch Herunterdrücken 1.6 pre-connect
you the toaster before the primary use? 1.7 through pressing down
lift key ugh! 3.5 at first some times without bread in the case of
opened window (laughs) 1.6 oh my God! 1.5 okay schalten Sie den
Toaster 4.3 pre-connect you the toaster? vor dem Erst 3.1 plug in
the toaster before 2.8 before using it 3.2 durch Herunterdrücken der
Lifttaste 1.6 through pressing down by pressing down 3.6 the lift key
1.1 I don't know whether that's right I suppose 1.4 zunächst einige
Male ohne Brot 3.2 first some times without bread 1.3 bei offenem
Fenster ein? 6.3 bei offenem Fenster? 1.1 in the case of opened
windows? 2.8 where's the window come into it? 1.3 hm(u) okay 7.1
before using the toaster for the first time 22.1 switch 13.0 switch
it 1.0 on by pressing down 5.8 the lift 1.0 key 8.0 before using the
toaster for the first time switch it on by pressing down the lift key
3.3 at first some times without bread in the case of opened window
11.9 at first sometimes start a new sentence do this 5.8 at first 2.0
a few times 3.1 without bread 5.2 bei off geöffnetem Fenster 1.9 in
the case of opened window? 2.3 bei geöffnetem Fenster or maybe it
means 2.6 beside an open window 1.8 doesn't make much sense either
1.4 em(r) 1.1 yeh 13.3 you can toast all bread sorts 3.5 all bread
sorts? (?) all types of bread 11.8 em(r) mit Hilfe des stufenlosen
you can 1.1 you can requested browning degree 1.4 with the aid of
stepless controller? hm(r) 5.4 brightly to dark (laughs) 2.5
einstellen they didn't translate that hm(r) 5.0 einstellen 3.8 you
can choose? 6.2 requested browning degree with the aid of stepless
controller 7.6 browning degree em(r) 2.6 Bräunungsgrad? 9.6 you can
1.8 choose 8.6 the 7.7 browning degree is that what you call it? 10.9
Bräunungsgrad 2.8 the degree of toasting? 3.0 toasting degree 7.9
em(r) with the aid of stepless controller by using 11.7 by using 6.1
stufenlosen Reglers? 6.4 stepless controller 3.2 Reglers 4.7 you can
choose the browning degree by using 2.0 it's a technical term I

suppose it might 4.4 this 1.7 stepless controller seems weird 9.6
controller hell 1.1 bis dunkel brightly to dark 1.5 em(r) 4.0 em(r)
1.4 God all the simple words go out of your head! light 8.9 em(r)
1.8 light to dark or 2.0 to well-done? 9.2 em(r) 3.3 light 1.3
lightly light to 9.2 hell bis dunkel 6.9 light to dark 1.5 well-done
6.0 em(r) 2.7 einstellen (RB 1: einstellen pp. 203-204) 17.8 to
adjust 1.7 to adjust 5.2 hm(a) to adjust 5.6 you can the requested
9.0 by adjusting 3.1 the stepless controller 2.8 maybe I'll put that
one up there after the actual degree of toasting 3.5 okay the lift
key is observed electromagnetically 3.5 in the case of switching on
is lifted automatically at the completion lift key is observed
electro 1.6 observed? 2.5 in the case of switching on and is lifted
automatically at the completion of toasting 2.5 wird beim Ein 1.1
festgehalten 1.3 that means like it's actually kept down depressed
7.9 so the lift 1.3 key 1.6 is 2.1 would you say 9.5 when the toaster
is switched is festhalten 4.5 is kept down 12.4 is observed 3.4
festhalten hm(r) can't think of anything (RB 1: festhalten p. 243)
9.2 festhalten keep a firm hold on keep hold to hold on to to stress
to hold to detain to record to capture 4.0 hm(r) 9.6 is kept 2.2
depressed 2.8 em(r) 1.8 elektromagnetisch 1.4 electromagnetically 8.4
by 2.6 by an electromagnet? 7.6 hm(r) 1.0 in the case of switching on
when the toaster is switched on 10.7 and is lifted automatically at
the completion of the toasting 3.3 and rises automatically? 10.2 at
the completion of the toasting process 2.2 and rises 1.3 when the
toasting process is 5.1 is completed 10.4 okay 1.0 you can interrupt
the toasting process through pressing stop key 2.9 you can interrupt
the toasting through pressing 2.2 the stop key you'd have to have a
the 7.6 it's okay 12.1 through pressing would that be by pressing 4.1
the 1.7 stop key or stop button 6.2 stop 1.2 key 2.3 button 1.0 stop
button 4.5 hm(a) stop key 1.7 das Gerät wird ausgeschaltet the device
is switched off grand 9.3 do not push 1.0 em(r) do not push up the
lift key 2.2 yeh 15.0 Toasten einer Brotscheibe toasting a slice of
bread 9.1 yeh 1.5 toasting a slice of bread to toast a slice of
bread? 3.1 toasting a slice of bread 1.6 it's okay 10.8 Hinweis 1.3
note or instructions? 2.4 note 1.2 (?) Hinweis 1.0 not too sure have
to look it up (RB 1: Hinweis p. 353) 12.1 piece of advice notice 10.2
hm(a) attention 3.3 Hinweis 2.3 note is best 1.8 note 3.1 em(r) as
there can be differences in the browning of both pages it's
definitely sides there can be no difference in the browning 1.4
Seiten 3.9 as there can be no difference in the browning of both 1.0
sides in the case of all two-slice toasters 1.0 when the toasting
only a slice? 1.3 oh God! doesn't make sense 4.6 the German wie bei
allen Doppelschlitz-Toastern kann es beim einer Scheibe Unterschiede
in der Bräunung beider Seiten geben 1.3 wie bei allen Doppelschlitz-
To Doppelschlitz-Toastern 2.6 as in the case of all two 2.6 two-
slice toasters? 6.1 when toas when the toasting when toasting only a
slice don't need the the 1.6 toasting einer Scheibe a slice 5.2 be a
difference in the browning of both sides 3.4 Doppelschlitz-Toaster
two-slice toasters? 2.0 never knew that 6.6 okay there can be a
difference 1.7 browning 1.0 both sides there can be a difference in
browning of both sides 3.7 bread 3.2 when 6.0 a two-slice toaster is
used to toast one slice or 1.4 could use it if you use a two-slice
toaster 1.2 toast only one slice 8.0 kann es beim Toasten von nur
einer Scheibe Unterschiede in der Bräunung beider Seiten geben okay
if you use 1.2 a two-slice toaster? 10.6 to toast 1.6 one slice of

bread 12.7 hm(r) there can be a difference 7.9 in the 1.2 browning
3.5 kann es beim Toasten von nur einer Scheibe Unterschiede use a
two-slice toaster to toast one slice of bread there can be
differences in the browning of 3.3 both sides 6.8 don't know whether
my translation's any better if you use a two-slice toaster to toast
one slice of bread 1.0 browning of both sides 2.3 there can be
differences in the browning 1.4 of both sides 8.8 or two sides could
be toasted to different degrees 1.0 if you use a two-slice toaster to
toast one slice of bread 14.3 change the two 1.6 sides 1.7 could be
toasted 2.0 to different 2.6 degrees 2.3 okay 1.0 sollten daher beim
Toasten 2.1 you were you were there to therefore select the one
setting lower of the browning when toasting only a slice 2.6 you were
therefore select? 2.5 doesn't make sense Sie sollten daher beim
Toasten von nur einer Scheibe die nächstniedrigere Einstellung der
Bräunung wahlen 1.1 you should 2.1 therefore select 2.3 the one
setting one you don't need the the there 5.8 one setting lower 3.5
when the to? when toasting only a slice when the toasting 1.3 when
toasting only a slice 1.9 you should therefore 1.4 a sl when toasting
only one slice 1.2 of bread you could say 13.5 em(r) you should
therefore select one setting 1.1 daher beim Toasten 1.5 die
nächstniedrigere Einstellung der Bräunung 1.6 you should 3.4 there
2.8 select 2.3 one 2.0 setting lower of the browning? 1.8 one
browning setting lower 4.8 hm(a) 10.3 (sighs) Braun control-sensor
2.9 hm(a) that's grand 18.9 in the case of H T fifty-five the built-
in sensor measures the surface temperature of bread and controls the
toasting time after this 6.6 yeh beim 2.1 sounds okay beim H T fift
mißt der eingebaut die Oberflächentemperatur des Brotes steuert
danach die Toastzeit 1.6 hm(a) 1.2 could leave that 7.3 in the case
of 1.3 H T fifty-five 5.1 sensor 10.5 temperature of bread of the
bread 10.8 und danach die Toast steuert danach die Toastzeit 2.8 in
the case of the built-in sensor 1.0 measures the surface temperature
of the bread 3.6 and then controls the toast 3.3 yeh and then
controls 2.1 the toasting time 3.3 Toastzeit 1.2 time it takes to tos
the toasting time 9.4 determine your requested browning degree with
the aid of the controller 8.5 still don't know what browning degree?
4.2 Bräunungsgrad 2.2 determine your requested browning degree with
the aid of the controller 4.1 or choose your 4.1 could just say
choose your browning degree 1.3 desired determine your requested
4.5 with the aid of the controller 2.7 or adjust your 8.3 Bräunung
1.7 with the aid of the controller or with the controller 10.9 your
requested browning degree 2.1 em(r) 5.4 determine you requested
browning 1.2 it makes sense but I don't know whether it's 1.2 I'd
actually write it 14.8 determine your requested 1.6 browning degree
with the aid of the controller 5.1 or 1.0 set your requested 3.6
ermitteln determine see if there's another word in here for it (RB 1:
ermitteln p. 224) 11.3 ascertain trace establish investigate 2.1
hm(r) 13.9 determine your requested 2.9 your 8.5 or 2.3 fix 9.7 fix
the 1.3 browning degree you desire 2.6 determine your requested
browning 4.6 oops 4.3 (yawns) 2.2 excuse me 2.3 determine your
requested browning degree with the aid of the controller 5.0 oh dear
I can't think of anything 8.3 ermitteln Sie Ihren gewünschten
Bräunungsgrad 7.8 determine 4.2 your 1.7 chosen 3.4 browning degree?
3.8 I might look that up 1.0 sounds funny (RB 1: Bräunung p. 137)
15.3 hmhm(r) 1.7 browning 3.0 (sighs) browning degree or toasting
7.4 em(r) 5.7 the aid of the controller 7.7 adjust the controller to

your chosen browning degree yeh 9.1 to your 9.4 chosen 6.2 adjust the
controller browning degree 2.6 chosen level of toasting 7.8 just go
on in the case of same bread sort 3.1 in the case of same types of
bread same sort of bread the toaster provides 1.1 soon whether 1.3
the bread is fresh for invariable browning 1.8 older or frozen 1.0
ist? 1.9 what's it trying to say? 1.4 bei gleicher Brotsorte sorgt
der Toaster 4.5 in the case of same type of bread sorgt der Toaster
für gleichbleibende 3.0 Bräunung 5.6 gleichbleibende Bräunung? 2.3
invariable browning? 10.3 is fresh 2.5 old or frozen you don't need
older 3.0 so in case of same 1.9 same types of bread 2.8 or for the
same types of bread the toaster 7.5 toaster determines immediately?
1.4 whether the bread is fresh 3.3 sorgt für gleich 2.2   determines
whether the bread is fresh 2.8 old or frozen 2.4 hm(r) for 5.5 same
2.3 types of bread 3.8 the toaster 3.9 sorgt für gleichbleibende
Bräunung 3.9 hm(r) 2.1 the toaster determines whether the bread is
fresh old or frozen 18.2 für gleichbleibende Bräunung 2.1 for
invariable browning? 2.1 does it mean like it sort of changes the
level for the different type 5.6 gleichbleibend 2.8 constant isn't
it? 2.2 again (RB 1: gleichbleibend p. 304) 17.9 to stay or remain
the same 1.6 to remain constant 3.2 constant steady 4.8 where did
they get 3.0 (?same types of bread) 1.8 for constant browning for
constant toasting 3.1 for the same types of bread the toaster
determines whether the bread 1.0 the toaster determines whether 1.0
the bread is fresh old 1.5 or frozen 9.6 gleichbleibende Bräunung
constant 2.4 em(r) 11.6 sorgt für gleichbleibend 1.9 determines
whether the bread is fresh old or frozen 10.1 and 2.6 for constant
toasting or brown browning 5.8 for the same types of bread the
toaster determines whether the bread is 2.6 and 1.9 ensures constant
browning? or 9.7 does it mean like that they actually the toaster
actually 2.7 changes the temperature 2.8 then of the bread I'll just
go and see what it says in the next sentence nevertheless it has to
be used to this in both slots of sort same bread and nature! 1.8 es
muß dazu jedoch in beiden Schlitzen Brot gleicher Sorte 2.7
nevertheless 4.5 the same 1.3 sort of bread 2.5 and 4.0 must be used
however to do this 1.6 the same sort of bread 9.7 same sort and
texture of bread? 3.4 must be used in both slots 9.0 nevertheless or
however 5.6 however 2.8 however to do this 4.9 (?) 2.3 em(r) 1.5 same
1.7 sort 3.2 and texture 3.0 bread 1.7 must 1.1 be used 3.1 in 1.1
both 2.1 slots 5.2 I'm still not happy about that ensures constant
browning 1.2 if a slice of bread is fresh older or frozen ensures
constant browning to do this same sort of bread same sort and texture
of bread must be used in both slots 1.0 if your toasts 1.4 turn out
too brightly 2.2 you repeat the toasting process with controller set
up more highly correspondingly 1.8 you wouldn't say 1.1 your toast is
too bright! 3.0 too lightly toasted? 6.7 if your if your toasts? 2.1
if your toast you wouldn't have that in the plural 2.3 if your toast
is 1.1 too 9.0 is too lightly done? 3.1 wiederholen Sie den
Toastvorgang 2.8 (?) repeat 1.1 you don't need you repeat repeat the
toasting process 7.5 with the controller with controller with the
controller 3.0 set up more highly correspondingly 1.8 you could just
say set 4.0 entsprechend höher gestelltem 9.2 with the controller
3.2 repeat the toasting process with the controller at a 1.9 higher
3.8 entsprechend höher gestelltem 2.4 at a higher setting? 14.8
sollten Sie nur eine Scheibe toasten if you were to only toast a
slice 1.1 please set these into the slot characterised with sensor

point 5.4 hm(r) 3.7 if you only wa 1.7 if you only want to tise to
toast 1.3 a slice 1.0 one slice 2.0 legen Sie diese bitte in den mit
dem Sensor 2.7 please put you please set these into the slot please
put these into the 3.1 mit dem Sensorpunkt gekennzeichnet 2.1 into
the slot 2.7 characterised with the sensor?   1.0 into the slot where
the sensor point is situated?   2.3 yeh 1.7 if you only 1.1 want 2.4
to toast 2.4 one slice of bread 7.7 then 2.2 legen Sie diese bitte
then please? 1.4 put 5.7 you please put set these why do you put it
just 1.0 please put this the singular 1.0 into the slot 4.2 where the
sensor point is situated?   10.7 em(r) 6.5 the grid for rolls has to
lock with the spring clamps 2.6 (yawns) 3.5 der Brötchenaufsatz muß
mit den Federbügeln einrasten 6.9 the grid for rolls 4.1 muß mit den
Federbügeln?   3.3   spring   clamps   2.6   Brötchenaufsatz   9.8
Brötchenaufsatz grid for rolls 14.5 or must has to lock must be
locked with the spring clamps 12.9

(cassette change 1-2)

7.3 I suppose Federbügeln is right 1.0 spring clamps 1.2 a technical
word 6.2 Aufsatz (RB 1: Aufsatz p.   64) 32.1 Aufsatz was bit on top
1.9 this must be an extra part the grid must be locked 1.2 with the
spring clamps 2.2 hm(r) the toaster changes over independently of the
controller during use of the grid for rolls 2.2 automatically to a
fixed time 3.6 bei Verwendung des Brötchenaufsatzes 7.7 the toaster
changes   over   der   Toaster   1.1   the   toaster   changes   over   2.4
automatically changes over 19.4 toaster automatically changes over
4.2 unabhängig 1.5 unab oh! 2.7 no 2.4 that's wrong the toaster
changes over independently of the controller 3.9 during use of the
grid for rolls 4.6 automatically changes over to 1.0 a fixed 5.1 auf
eine Festzeit 4.3 toaster automatically changes over to a fixed time
5.7 no 1.2 when 1.3 you are using 4.9 the grid for the rolls 13.5 the
toaster automatically changes over to a fixed time 5.8 independent
4.0 independently of the controller? 10.9 (?) without the 4.8 to a
fixed time 7.1 independently of the controller 3.8 independently 5.1
independent from the 2.0 changes over independent 4.7 from the
controller 5.0 put that up there changes over independent from the
controller to a fixed time 9.9 switching on also occurs with the lift
key 5.3 switching on em(r) you can also switch on? 2.3 you the lift
key can also switch on the toaster? 9.2 can also be used 1.6 to
switch on 2.1 the toaster 9.4 Reinigung alle Modelle 3.9 cleaning all
models? 2.0 (?) 2.8 yeh that's okay 9.9 em(r) pull the power plug 1.3
before in front of every cl well it's before 4.8 would you say pull
out the plug? or pull out the toaster? 2.5 ziehen Sie vor jeder den
Netzstecker 5.5 pull out 3.9 plug in plug out 3.3 plug out the
toaster 3.0 before 1.3 every cleaning 5.4 a moist cloth suffices for
the cleaning of the casing 1.6 für die Reinigung genügt ein feuchtes
Tuch 17.8 hm(a) it's okay 8.7 a moist or a damp cloth? 20.0 a damp
cloth can be used 1.4 to clean the casing? 2.2 or für die Reinigung
des Gehäuses genügt ein feuchtes Tuch 1.8 it's okay really a moist
cloth suffices for the cleaning of the casing 18.2 suffices 1.5 to
clean the casing 6.6 verwenden Sie keine 2.0 use no keen 4.2 em(r)
2.7 scharf 12.2 use no do not use 3.0 do not use 1.2 any 1.9 what's
the word? 3.0 scharfe 5.4 sharp 3.7 und scheuernden Rei 4.9 scouring

cleaning agents? 13.1 use any 1.1 sharp 2.4 or scouring 1.7 keine
scharfen und scheuernden could you just say scouring cleaning agents?
11.8 scharfe Reinigungsmittel 5.5 would scharf just be sharp? 1.9 see
if there's any inspiration (RB 1: scharf p. 566) 1:25.3 don't use
any 5.4 strong 1.8 strong cleaning agents 2.8 pull withdraw out
crumb compartment occasionally 7.9 pull out 1.7 occasionally pull out
7.4 the crumb compartment compartment 18.4 and empty 1.0 and empty it
you'd have to say 11.3 Änderungen vorbehalten 4.2 reserve changes?
11.9 interference screenings according to after 5.5 reserve changes
doesn't make sense 13.1 vorbehalten? (RB 1: vorbehalten p. 730) 24.8
aha(u) subject to alterations? 1.3 Änderungen 1.7 vorbehalten 21.6
funken 3.0 funkentstört nach den Richtlinien 1.8 interference
screening's? 4.0 according to 1.6 the guidelines 3.6 seventy-six 1.3
eight eight nine 11.5 with supplement guideline 3.7 interference
screening's according to 2.2 according to 7.1 funken 2.6
funkentstört? 1.2 have to look that up (RB 1: Funkentstörung p. 267)
31.5 funkentstört 2.3 to suppress interference 14.1 funken 8.7
subject to alterations 12.1 funkentstört nach den Richtlinien 1.9
interference screening's 2.1 according to the guidelines 11.5
suppress interference 8.6 funkentstört nach den Richtlinien 15.8 okay
(?) 16.3 just read back through what I wrote here then I'll go back
to the last sentence 8.5 operating instructions operation 3.1
operation 1.8 the Braun toaster only works (reads text indistinctly)
6.8 a few times without 1.4 using bread beside an open window 5.2 do
this a few times 4.9 put that up there do this a few times beside an
open window without using bread 6.3 you can type after writing down
something stupid 4.0 you can toast 2.7 all types of bread you can
choose the desired degree of toasting by adjusting the controller 3.0
to dark 1.1 the lift key is kept suppressed by an electromagnet 1.0
when the toaster is switched on and rises when the toasting process
is complete press by pressing the stop key the device is switched off
do not push up the lift key toasting a slice of bread note (reads
text indistinctly) 8.4 hm(r) 12.6 Braun control sensor in the case of
H T the built-in sensor measures the temperature of the bread and
then controls the toasting time 11.7 for the same types of bread the
toaster determines whether the bread is fresh old or frozen and
ensures constant browning 1.0 to do this the same sort texture of
bread must be used in both slots if your toast is too lightly done
repeat the toasting process with the controller at a higher setting
1.0 if you only want to toast one slice then please put this into the
slot where the sensor point is situated the grid for must be locked
with the spring clamps when you are using the grid for the rolls the
toaster automatically changes over 1.5 independently from the
controller to a fixed time the lift key can also be used to switch on
the toaster 1.0 cleaning all models plug out the toaster before 1.5
every cleaning 11.7 every cleaning? 8.0 every time 2.0 before you
clean it 3.6 a damp cloth suffices to clean the casing do not use any
strong or scouring cleaning agents occasionally 1.3 pull out the
crumb compartment 1.5 and empty it 1.7 subject to alterations 1.5 I'm
back again em(r) 1.5 interference screening's according to after the
guidelines 19.1 Funkentstörung suppression of interference 2.3
funkentstört 8.2 does it mean like that you can't 1.6 copy it? 41.2
funkentstört 1.0 suppressing of interference 29.1 interference
suppressed or 12.7 interference 9.1 according to the guidelines 1.1 I
haven't a clue really! 6.0 according to the guidelines 2.2 eight

eight nine 18.6 suppre 1.6 or copyright does it mean? 9.3 supplement
4.3 supplement guidelines 4.3 two 3.2 guideline 3.2 nine nine what
does E W G then mean at the end?   21.2 according to the guidelines
4.3 I don't know 2.1 (laughs) 31.6 maybe it means hm(r) 12.1 that
you're not supposed to interfere with the instructions or something
the copyright 17.5 hm(r) 10.5 okay (laughs) ▪

THINKING-ALOUD PROTOCOLS ▪ PP III

▪ 3.5 now let's see sentence one Braun control-sensor toaster with an ah a hyphen in between 1.4 eh(r) the two English words they've used control and sensor 1.3 eh(r) I don't think I would have an a hyphen in between control and sensor in English 3.5 eh(r) 2.5 Braun control 1.3 sensor 2.1 toaster 1.4 H T fifty-five oh sentence one 3.0 type four one O four 1.3 number two Gebrauchsanweisung 1.5 eh(r) there's obviously two possiblities that they've put in instructions and operating instructions I'd definitely call it 1.4 hm(r) operating instructions 3.1 cos the other one is a bit too eh(r) 1.0 general 2.6 number three Betrieb well alle Modelle all models that's alright but business is obviously a wrong translation it's in the wrong eh(r) context eh(r) Betrieb yeh operation 2.9 eh(r) maybe operating 2.2 I don't know 1.9 put that in brackets 3.3 eh(r) 6.2 number four Hinweis note yeh either note or I might even 1.5 write important note hm(a) 3.6 hm(r) five 1.2 der Braun Toaster läßt sich nur eingerasteter Krümelschublade? 2.1 Braun to lets only operate aha(n) that's eh(r) 2.0 German grammar they've got in here 1.3 Braun 3.1 toaster 1.4 can only be operated of course it would have to be 2.9 Braun toaster 1.5 can only be operated 3.3 and in the case of aha(n)! that was the problem with the bei which you can't usually do very well in English literally anyway the Braun operating eh(r) toaster can only operated 1.0 I would just say when the crumb compartment if that's what you want to call it 1.0 crumb drawer would sound too stupid when the crumb compartment is well locked for eingerastet 1.5 yeh that would be okay 3.3 if I were the Braun company I'd probably write B R O W N in an English-speaking country cos otherwise it sounds like brawn 2.4 (hums) number six schalten Sie den Toaster (indistinctly reads text) 2.4 pre-connect you the toaster? oh no! 1.3 schalten Sie den Toast Toaster zunächst vor dem Erstgebrauch 3.6 pre-connect you the toaster well that's obvious that's just stupid before the primary use no before using it for the first time 1.1 through pressing down lift key that would have to be by pressing down lift key 2.2 eh(r) 3.2 oh yeh and then it's 1.2 zunächst has been just hung on in English at first and then einige Male some times 1.2 without bread in the case of open window that's the silly translation of bei again 2.3 eh(r) I would say eh(r) 4.2 hm(r) 3.5 before using the toaster for the first time 8.7 and comma 2.6 (sighs) eh(r) 7.5 eh(r) 5.1 switch on 2.8 the 3.7 switch 1.4 hm(r) 7.1 switch on the toaster a 2.0 few times 1.0 without bread 2.2 few times 2.1 without 4.2 and oh! bei geöffnetem Fenster 3.7 a few times without bread and with 1.5 the window open (laughs) open your bedroom window first 1.4 em(r) (clears throat) that sounds a bit funny but eh(r) I wouldn't know what else they would call Fenster before using the toaster for the first time switch on the toaster a few times without bread and with the window open 2.2 well I don't like that very much but never mind number seven Sie können alle Brotsorten toasten you can toast all bread sorts haha(am)! 1.2 you can toast 1.2 eh(r) 2.7 I think we'd just say all types of bread or all kinds of bread 6.8 eight mit Hilfe des stufenlosen Reglers 1.2 können Sie den gewünschten Bräunungsgrad einstellen aha(n) they've tried to invert this in English but it hasn't quite worked though 1.6 requested? browning degree 1.2 with the aid of stepless controller 3.2 einstellen? in German? have they not translated this into En is

it not translated this into English at all? 1.9 alright S P O you
1.1 can 1.9 I would say select in English you can select the 1.6 well
desired sounds a bit highfalutin but never mind you can select the
desired degree of browning? ememem(r) browning degree? no the desired
1.8 eh(r) 12.5 (sighs) desired well a good way out of that is just to
write the desired mode 1.8 eh(r) you can select the desired and mit
Hilfe von with the aid of no I would say using 1.3 the 1.5 stufenlos
1.6 controller? no stufenlos would be 1.6 is it continuous or
continual? 3.1 hm(r) have a look for stufenlos in here (RB 4:
stufenlos p. 828) 4.7 stepless it says here as well but that I would
rather say con is it continual or continuous? page eight two eight
1.3 em(r) 3.2 continuous? 9.8 I'm going to call it a continuous
controller using 2.1 you can select the desired mode using continuous
6.6 eh(r) 14.9 alright in brackets one 1.1 light 2.5 em(r) 3.1 one
light to six 1.3 dark well I don't like my mode but I couldn't think
of anything else browning toasting 3.8 then I think to make it
absolutely sure in English I would probably add on the end eh(r) 2.9
depending on how you like your toast (laughs) no we'll not bother
doing that though 1.1 number nine die Lifttaste wird beim Einschalten
elektromagnetisch festgehalten und nach Beendigung des Toastvorganges
automatisch angehoben 2.5 eh(r) festhalten to observe 1.0 das wollen
wir mal festhalten em(r) yeh they made a mistake there 1.5 well 3.0
the lift 1.7 key sounds strange in English the lift key! 1.7 I would
probably call it a lift button really 4.0 em(r) 2.7 is 2.4 eh(r) 2.6
well I would just say is held 2.8 electromagnetically 1.1 in brackets
they've got electromagnetic yeh that's the eh(r) 1.1 the adjective
though 1.9 electromagnetically 6.2 eh(r) when the toaster is switched
on would be better 6.7 on and 3.5 is 1.3 lifted automatically yeh
I'll do the same as they've done here 1.2 automatically 2.1 at the
completion of the toasting process well that sounds too highfalutin
is lifted automatically 1.0 em(r) when the toast is ready (laughs) no
eh(r) and is lifted automatically 1.2 after toasting! it's as simple
as that 10.9 alright 2.1 number ten 1.0 Sie können den Toastvorgang
durch Drücken der Stop-Taste unterbrechen you can interrupt the
toasting 1.7 process through pressing stop key well just a few little
differences I'd make there 2.0 eh(r) 5.5 you can interrupt here again
I'd just say you can interrupt toasting cause the toasting process
sounds too big to me 1.2 and not through pressing but by pressing
that's obviously a just a Germanism through durch 1.2 by pressing the
stop key I would say 3.0 can interrupt th yeh toasting by pressing
the stop key in brackets one 1.9 das Gerät wird ausgeschaltet 1.5 the
device is switched off? well that's all well and good saying device
but it's a toaster so let's call it a toaster 2.0 toaster 3.3 is
switched off 1.3 not quite sure what they even mean in the German das
Gerät wird ausgeschaltet 1.3 oh well switched off 1.3 number twelve
die Listtaf Lifttaste nicht hochschieben 1.2 do not 1.3 push up the
lift key that's alright 6.7 Toasten einer Brotscheibe toasting a
slice of bread that's very straightforward 5.9 Hinweis note again but
perhaps even important note as before 3.7 wie bei allen
Doppelschlitz-Toastern (reads text indistinctly) Scheibe Unterschiede
in der Bräunung beider Seiten geben 2.1 as there can be differences
in the browning of both pages side! (laughs) and side they've even
got in the singular hm(r) in the case of all two-slice toasters
when the toasting only a slice 1.8 oh that's a total pandimonium
eh(r) 5.8 yeh that's totally ridiculous in English 1.2 so em(r) 1.6

I'd rather do it like as with all 2.8 double toasters 6.3 or 1.0
perhaps call it 2.7 toasters for 2.3 hm(r) 4.8 toasters for toasting
1.1 two slices of bread at the same time that's all too long I'll
just leave the double toasters as with all double 1.3 hm(r) 2.4
toasters 3.4 there can 2.3 be 7.2 differences 3.5 between 2.9 both
sides (sighs) 4.5 when 3.1 toasting one slice of bread only 4.3 as
with all double toasters there can be differences between both sides
when toasting a slice of bread 1.6 only 2.7 yeh they've done von nur
einer Scheibe when toasting o only a slice of course that's wrong
when the toasting only a slice 1.3 God knows where they got that from
1.4 sixteen sollten daher beim Toasten von nur einer Scheibe die
nächstniedrigere Einstellung der Bräunung wählen Sie sollten you were
to ha(am) that's wrong of course! therefore daher 1.0 select the one
setting lower of the browning when the toasting only a slice what's
this about when the toasting? it's all wrong! 1.8 em(r) I would just
just say you should therefore 7.2 no! 1.3 different 1.8 when you
toast one slice only 2.6 comma 1.1 you should therefore 1.4 select
1.6 one 1.5 setting 1.4 lower I think that would be obvious which
setting we're talking about there only one thing you can set there
1.5 and instead of when you toast maybe when toasting one slice only
that sounds nicer 2.2 seventeen Braun control 1.3 sensor again I
would leave off the the hyphen in English here 1.3 H T fifty-five
1.3 eighteen beim H T T fünfundfünfzig mißt der eingebaute Sensor die
Oberflächentemperatur des Brotes und steuert danach die Toast 1.7
zeit in the case of 2.2 hm(r) okay in the case of would be alright in
this case ha(am) in the case of H T I would call it the H T fifty-
five because even in German it's beim H T fünfundfünfzig 1.7 alright
the 1.7 built-in sensor we could have said integrated but never mind
the built-in 1.7 sensor measures 2.6 surface temperature? that's
alright 2.4 although it sounds a bit like we're talking about suns
and planets 1.2 measures the surface temperature of they've written
here of bread and it's des Brotes 1.1 em(r) 1.6 that sounds more like
1.6 das Brot as what do you call it? eh(r) 2.1 generische Bezeichnung
in that case it would be without an article in English but of course
we're 1.2 we're talking about certain slices of bread so it'll have
to be of the bread 3.8 und steuert danach die Toastzeit and controls
is alright the toasting time after this of course em(r) this is eh(r)
danach in a 1.2 tem in a temporal sense but this obviously isn't
meant here steuert danach das heißt je nach der
Oberflächentemperatur des Brotes 1.6 so and controls 2.5 the 1.8
toasting time 3.4 accordingly! 1.1 would be quite simple there 5.0
eh(r) nineteen ermitteln Sie Ihren gewünschten Bräunungsgrad 1.1
sounds like a solarium ermitteln Sie Ihren gewünschten Bräunungsgrad
mit Hilfe des Reglers determine your requested browning degree
(laughs) the 1.8 with the aid of the controller ermitteln Sie 3.7
ermitteln Sie? no I think the the original text is a bit funny here
you don't have to find out the the amount it's got to be get browned
hm(r) 1.6 it just means legen Sie den gewünschten Bräunungsgrad mit
Hilfe des Reglers fest I would say! 1.2 so in that case 2.4 (laughs)
I'll just say set 2.0 the re 2.5 requested 1.4 I think we could even
call it colour couldn't we! ke set the re but not requested required
1.2 or desired desired is better set the desired 4.3 browning degree
no! set the desired 5.1 oh I'm gonna write colour that's all it's not
quite right 1.4 and I would say using the controller is better than
with the aid of 3.6 controller control 1.0 yeh also Regler what we've

always got is controller here 1.0 that's controller as more used in
cybernetics and things 1.7 eh(r) Reglerkreis and that type 3.5 we'd
probably call it a control and not a controller like you talk about
the controls on a radio 1.4 well I'll come back to that later 2.1
twenty bei gleicher Brotsorte in the case of same bread sort haha(am)
1.6 em(r) 1.5 sorgt der Toaster gleichbleibende Bräunung
(indistinctly reads text) frisch älter oder gefroren ist 1.7 alright
2.1 when the same bread sort is when the same kind of bread is used
3.0 same type of bread or same kind of bread is used 2.9 the 3.1
toaster provides soon whether the bread is fresh hmhm(am) for
invariable browning they've even split provides for invariable
browning up in the middle! 2.1 well I would say the toaster 1.9 makes
1.4 sure 2.1 that the 1.3 colour is the same 3.1 whether 4.8 the
bread is 2.4 fresh slightly 2.3 older 1.4 or and of course we
wouldn't just say frozen we would say deep-frozen 6.5 alright 1.4
twenty-one es muß dazu jedoch in beiden Schlitzen Brot gleicher Sorte
und Beschaffenheit verwendet we em(r) 1.1 nevertheless? jedoch that
doesn't really fit it would have to be however 1.0 it has to be used
to this 1.4 in both slots of sort same bread and nature 3.1 well
that's total twaddle 1.3 em(r) 1.8 I would write however for this it
is 2.5 necessary 4.2 to use 2.1 bread of the 1.2 same 1.2 kind 1.4 of
the same kind and consistency would be better for Beschaffenheit 1.0
use bread of the same kind and consistency in both now I wouldn't
call these slots wouldn't call them slits either I would just call
them sides both sides of the toaster I think that's obvious what we
mean 1.6 falls Ihre Toaste zu hell ausfallen? ha(s)? Toaste in der
Mehrzahl hab ich noch nie gehört wiederholen Sie den Toastvorgang mit
entsprechend höher gestelltem Regler 2.0 if your toasts turn out naw!
if your toast turns out too brightly of course I don't know what
they're using a an adverb for here the machine obviously thought that
was 1.0 somehow 1.4 qualifying the verb turn which of course it's not
cos it's one of these typical things where the adjective stays the
same 2.2 em(r) 1.3 if your 1.1 toast turns out too light well if your
toast is too light I think would be alright if your toast is too
light 3.3 eh(r) 2.6 you can 2.1 repeat toasting 2.3 or no you can
repeat the process that would be okay 2.2 em(r) 1.4 using a higher
setting of the controller 2.2 I still think that control might be
better than controller? 2.4 a higher setting of the control? of the
controller? 2.6 of the control controller hm(r) 1.7 sollten Sie nur
eine Scheibe toasten legen Sie diese bitte in den mit Sensorpunkt
gezeichne gekennzeichnetem Schlitz sollten Sie if you were to
they've done the same as they did before sollten Sie nur all this
sollten Sie means is just wenn Sie nur eine Scheibe toas toasten so
if you 2.5 are only toasting one slice? 1.7 no if you want 1.5 to
toast 2.7 one 1.3 slice only 1.1 legen Sie diese bitte hmhm(a) you
please set these into the slot characterised no that's all wrong just
2.2 please 2.1 haha(am) and diese these of course the machines
thought that was a a plural which it's not 1.5 please 1.5 put simple
enough please put 1.1 it meaning the one slice haha(a) please 1.2 put
it 1.3 into the oh dear now they do want a word for Schlitz alright
when then I'd use the word slot into the slot 1.2 and gekennzeichnet
of course marked in this 1.0 thing marked 1.6 with the 2.9 sensor
point? sensor hmhm(am) point? sensor dot? well put point 3.0 (sighs)
twenty-four der Brötchenaufsatz muß mit den Federbügeln einrasten
the grid for rolls 3.6 the 1.5 I would call that just the fitting for

toasting rolls 6.9 muß mit den Federbügeln einrasten 4.1 must 5.7
lock 1.4 I think by means of 7.2 spring clamps or perhaps 6.2 maybe
1.8 the spring clamps 2.6 of the 1.6 fitting 2.2 for toasting 3.2
rolls must 2.8 lock 4.2 I think must snap 1.1 something like snap
shut might be alright as well put that in brackets 3.9 alright bei
Verwendung des Brötchenaufsatzes 2.4 schaltet der Toaster unabhängig
vom Regler automatisch auf eine Festzeit um the toaster changes over
independently of the controller during use of the grid for rolls
automatically to a fixed time no the whole order of words is wrong
here I would say 1.5 when using 3.6 a fitting for toasting rolls 8.6
rolls 2.9 the toaster 6.5 automatically 2.7 changes over? no!
automatically 1.5 switches to 1.7 a fixed 4.6 time 1.1 perhaps also
to a standard time 3.4 automatically switches to a fixed time 1.2
standard time 1.0 unabhängig vom Regler I think if it's automatically
then it's obvious that it has nothing to do with the controller 1.7
but I would em(r) 1.8 fixed time standard time alright we could put
independently 3.0 of the controller 3.7 or perhaps 1.3 setting of the
controller 1.9 of the control of the controller controller hm(r) 2.3
das Einschalten erfolgt ebenfalls mit der Lifttas switching on also
occurs with the lift key no I'd make a passive out of this em(r) 6.6
eh(r) no 1.4 the lift 2.1 key 1.0 switch button the lift 1.1 no lift
button sounds like a Fahrstuhl 1.8 the lift 1.1 ah I'll have to put
key just now I think I'll have to look up Taste (RB 4:   Taste p.
838) 9.0 Taste push-button key key press-button signalling key key I
always think of a little piano key or a something on a typewriter 1.3
the lift 1.2 key I'm going to call it a lift button I don't care if
it sounds like a Fahrstuhl 1.3 the lift 2.4 button is 1.9 also 1.5
used (clears throat) to switch on the toaster 7.0 it's also used to
switch on the toaster 1.4 twenty-seven Reinigung 1.7 alle Modelle
cleaning all models fair enough 5.9 twenty-eight ziehen Sie vor jeder
Reinigung den Netzstecker 1.8 pull the power plug 1.0 before in front
of every cleaning aha(u) that's the the you've got the temp there the
local sense of the word vor here as well pull the power plug 1.0 well
pull out and I wouldn't call it a power plug I'd call it pull out the
just the plug or maybe the mains plug 1.0 if I was trying to do it
really British 1.5 pull out the mains 1.9 aha(u) and then I would put
always pull out 2.1 the mains plug 1.8 before 1.5 cleaning because
you couldn't really put every cleaning in English so you put always
out on the front 1.5 twenty-nine für die Reinigung des Gehäuses
genügt ein feuchtes Tuch aha(u) a moist cloth we would probably call
it a damp cloth wouldn't we it's another version of feucht a damp 1.4
cloth 4.5 suffices okay 2.9 is sufficient 4.6 for cleaning 3.9 the
casing? (coughs) yeh okay is sufficient for cleaning the casing 4.9
eh(r) 4.6 could also say the casing can be kept clean very simply
using a moist cloth 2.0 oh well anyway I'll just leave this verwenden
Sie keine scharfen und scheuernden Reinigungsmittel 4.1 use no keen
no scharf keen? don't like that that sounds more like scharfsinnig
1.8 sharp? no scharf really means sort of acidy or (mutters) not not
pungent em(r) 1.5 scharfe Reinigungsmittel eh(r) strong it just means
3.3 probably won't be anything under scharf in here (RB 4:   scharf
p. 700) 2.2 sharp defined pointed caustic yeh okay caustic caustic
soda I think it just means strong 1.5 use no 3.0 strong no
Reinigungsmittel use no strong cleaners 1.9 or cleaning liquids use
no strong cleaners I think that's obvious use no strong 1.3 cleaners
1.6 or 1.8 scouring 1.8 well although you can get liquid Fisk now I

think I can still call this scouring 2.2 powders? it's usually some
kind of a powder yeh strong cleaners or scouring 1.0 powders 1.0
scouring 2.8 scouring agent no agent isn't right scouring 2.8
scouring 1.4 scouring products maybe scouring products might get me
round the problem 2.4 and I don't want to say powders 4.8
Krümelschublade gelegentlich herausziehen und leeren withdraw
(laughs) crumb compartment no pull out would be okay 1.4 pull out the
crumb 4.4 comp 2.9 pull out the crumb compartment occasionally and
empty it's funny the way empty just sits at the end there 1.3 pull
out and empty I would say 1.4 the crumb compartment occasionally 1.9
cas-ion-ally 4.1 thirty-two 1.0 Änderungen vorbehalten reserve
changes? huhhuh(am) sounds like an imperative 1.1 em(r) well I'm not
sure what exactly the eh(r) sentence is they use Änderungen
vorbehalten 1.4 eh(r) it's usually the 2.4 (sighs) the manufacturer
it would have to be a long thing 1.1 the manufacturer reserves the
right 2.3 to change I would probably call it specifications 1.4 to
change 1.9 specifications 2.7 usually it would be at short notice or
something but I think we'll leave that off here 1.3 funkentstört nach
den Richtlinien aha(u) interference screenings according to the
guidelines with supplement guideline well don't know else you would
say apart from guideline 1.0 Richtlinie 2.6 course nobody knows what
the guidelines seventy-six eight eight nine are when you hear
Richtlinien 1.1 oh I see it says E W G on the back well I don't know
what to do there but 2.0 screened against 1.0 I think it would be
screened against radio interference 6.9 according to well there again
they've put the temporal sense of nach in here as well it would have
to be according to 1.6 alright I'll just write guidelines 1.0
seventy-six eight eight nine 4.0 but guideline I don't like 3.4
guideline eighty-two four nine nine E W G 1.0 ah no of course it
wouldn't have to be E W G it would have to be 2.6 I take it that
means Europäische Wirtschaftsgemeinschaft it would have to be E E C
although nowadays we would normally just say E C I think wouldn't
we? 4.5 okay maybe if we say according to E E C guidelines with
supplement guideline or including supplement guideline 1.1 if we say
E E C guidelines 1.0 then 1.4 it might be obvious 1.6 right 10.2
(whistles) okay we had crumb compartment that was okay 1.9 (reads
text indistinctly) 3.9 I think switch on the empty toaster a few
times would sound nicer than without bread switch on the empty
toaster a few times with the window 3.6 open 4.6 what is this window
they're talking about? 2.2 I think if we don't say t em(r) toaster
window 1.0 open then people are gonna think you have to open the
kitchen window when you're doing it 1.2 toast all kinds of bread you
select desired mode using select the desired 1.2 colour? well I
think colour is quite obvious with toasting using the continuous
controller 1.0 the lift key lift button we'll call it a lift button
is held electromagnetically 4.9 I think it would be better to say
held by an electromagnet 1.6 then I can write it all in one word 1.3
the toaster is switched on and is lifted automatically after 1.1
toasting you can interrupt toasting by pressing the stop key I would
call it a stop button as well toaster is switched off do not push up
the lift key toasting a slice of bread important note 1.4 there can
be differences between both sides when toasting one slice of bread
only when toasting one slice only you should therefore select one
setting lower 1.0 Braun control sensor in the case H T (reads text
indistinctly) 16.5 alright for both sides I will call it slots if

your toast is too light you can repeat the process using a higher setting 3.2 higher setting of the controller 1.7 using a higher setting it's obvious that it's a setting of the controller so I'll leave that off if you want to toast one slice only please put it into the slot marked with a sensor point the fitting for toasting rolls must lock by means of the spring clamps 1.7 when using the fitting for toasting 2.2 what have I written here? oh! supposed to be rolls 1.7 the toaster automatically switches to a fixed time or a standard time independently of the controller of the setting of the controller 1.4 the lift button is also used to switch on the toaster 9.1 scourers scourers? can you say scourers? 4.2 maybe we could say use no but I'm not sure caustic or scouring cleaners 7.6 (sighs) 2.6 the right to change specifications I think it's something before something like without prior notice 5.6 screened for radio interference according to E E C guidelines blah blah alright that was it I think ▪

THINKING-ALOUD PROTOCOLS ▪ PP IV

▪ and that's always suspicious because the English always then seems
to be very international but very senseless so that probably a lot of
people would never know what a control-sensor toaster is 1.4 but on
the other hand I've got no nothing which would occur to me 1.8 eh(r)
to replace it with because I don't know what this sort of toaster in
fact is like 1.2 so I'm a bit lost on that one that I would require a
lot of research finding out what exactly the sensors are for 1.1 so
I'll leave that it just looks good but it's pretty meaningless for
normal English readers 1.4 go on to the second one 2.6 that's okay
the third one 2.9 eh(r) this seems very confusing 1.7 em(r) 1.2 and I
shall write here method of operation 4.6 for Betrieb 1.2 Hinweis note
that seems okay so number four 1.2 okay or maybe actually come to
think of it I would say please note that would be better so please
note 1.9 number five 1.3 bei eingerasteter Krümelschublade betreiben
the Braun toaster oh God! lets only operate in the case of locked
crumb compartment so this has obviously got to be changed 2.5 em(r)
1.4 the toaster 1.1 I've left out Braun because I always think that
is extraneous anyway re keeping repeating the maker's name the
toaster can only be 3.2 operated instead of lets 2.4 em(r) 5.1 after
2.0 the 1.7 crumb 2.3 em(r) well 1.1 compartment 2.3 I suppose that's
all right it's a bit unusual but on the other hand it depends what
it's like and I haven't got a picture of the damned thing so I don't
know really whether it is a compartment or a drawer the Braun toaster
can only be operated after the crumb compartment 1.4 em(r) 1.0 after
the crumb compartment 1.6 has 1.0 been 1.3 closed I prefer to locked
locked is a bit sort of exaggerated 1.2 number six 1.1 schalten Sie
den Toaster vor dem Erstgebrauch durch Herunterdrücken der Lifttaste
drei zunächst einige Male ohne Brot bei geöffnetem Fenster ein
(laughs) oh God! sounds like Monty Python right pre-connect oh damn!
primary use through pressing down lift key at first some times
without bread in the case of opened window this is hopeless isn't it?
so 2.3 em(r) switch no hold on hmhm(r) hmhm(r) hmhm(r) 10.4 so this
is all wrong in fact this se 1.0 before 5.1 use that's the standard
English collocation for this sort of situation before use 4.8 hm(r)
8.7 (tuts) (sighs) this is not going to help me very much and neither
will the dictionaries because I can't think at the moment if there's
a special name 1.3 for this sort of 1.8 lever on the toaster that
you press down 1.9 hm(r) I think I shall say before use 21.8 before
use the toaster 2.3 should 2.7 be 3.1 set? 1.0 no should be should be
set should be put into action the toaster should be put into action I
prefer that the toaster should be put into action 5.8 without 2.8 any
2.1 bread in the slots 1.2 I think I'd put that in 1.3 make it more
sense 1.8 before use the toaster should be put into action 4.1 einige
Male 4.3 should be put into action several times 2.8 without any
bread in the slots 3.0 and 1.0 after 1.2 having 3.5 opened a 1.1
nearby 1.8 window 3.6 hm(r) right number seven Sie können alle
Brotsort Brotsorten toasten you can toast all bread sorts so 1.7
em(r) probably it would be the other way round in English 1.3 all
sorts 1.2 of bread 2.4 can 1.3 be 1.8 em(r) toasted 2.3 in this model
2.3 number eight mit Hilfe des stufenlosen Reglers können Sie den
gewünschten Bräunungsgrad hell bis dunkel einstellen 1.8 oh dear oh
dear oh dear oh dear! yes 2.4 so 3.7 em(r) 27.6 the re 2.4 em(r)
hm(r) 1.0 suitable? appropriate? 2.2 probably they'd just say correct

1.0 the correct degree 1.8 of toasting 1.4 can be 1.9 achieved 1.8 by
2.2 setting 2.7 the 2.9 em(r) 4.3 by setting the 1.6 dial? 1.5 by
dialling? no 1.2 by setting the 4.6 eh(r) 1.6 by setting the 2.3 knob
I think we'd call it 1.5 not a button knob dial 1.4 by setting turn
the knob it's a knob I think 1.9 course it all depends on my toaster
it's a knob but God knows what other people have got 1.3 em(r) by
setting the knob and I shall write here alternatives perhaps because
toasters have got different sorts of 4.4 ways of setting 3.9 the
toasting 1.0 the correct degree of toasting can be achieved by
setting the knob or dial 1.3 or 1.5 em(r) according to model 2.8 by
setting the knob or the dial to the 3.3 level 1.5 required 2.7 eh(r)
E G 3.0 eh(r) one is 2.2 em(r) 11.1 what I shall call light for the
moment and 1.4 E G one light 1.8 three medium I'm inserting this
because I'm not an extremist 1.1 and six 1.2 black! (laughs) light
medium eh(r) dark I will call it instead black toast 1.4 right number
nine 1.0 so I've added something to the translation in this case
because this is not customer-friendly 1.2 or user-friendly 1.8 it's
always good to have a medium value in as well 2.7 and that's very
often the case for translations that you have to add something 1.4
number nine die Lifttaste wird beim Einschalten elektromagnetisch
festgehalten und nach Beendigung des Toastvorganges automatisch
angehoben 2.6 ah ja 4.6 aha(a) aha(a) ahm(a) 28.8 so it does look as
though I'm going to have to 1.0 find some peculiar word for Lifttaste
12.0 (sighs) 8.2 hm(r) 4.7 (sighs) 9.9 okay let's assume that it is
in fact some sort of lift key 4.8 similiar to a typewriter 1.7 key
3.7 so for want of a better idea and knowing jolly well that it won't
be in the dictionary I shall use this expression 1.7 the lift key 3.5
em(r) 2.5 is 3.6 electro-mag-net-ic-ally 2.0 controlled 3.5 em(r) 2.2
after 2.0 being 3.9 pushed down 2.5 and I write an alternative
depressed because if it is a sort of lever then pushed down would be
better 1.0 and if it's more a a button rather than a lever or a key
instead of a lever then depressed would be better but that's
something I can't know so that choice of word 1.9 would 1.1 eh(r)
have to be according to what the thing looks like in reality 1.6 the
key the lift key is electromet is electromagnetically controlled
after being pushed down or depressed 1.0 and 2.5 eh(r) returns to its
normal position 2.5 now returns to its normal 1.7 position 1.1 I
prefer that to all this rubbish here about 1.9 lifted automatically
although I suppose I'll have to put that in the lift key is ultram is
electromagnetically controlled after being pushed down after being
depressed and returns to its normal and automatically returns to its
normal position 1.1 yeh and automatically aut-o-mat-ic-ally returns
to its normal position after toasting 4.7 that should be enough 4.3
number ten Sie können den Toastvorgang durch Drücken der Stop-Taste
unterbrechen 1.9 you can interrupt the toasting process through
pressing the stop key 2.0 well that's okay except 2.5 change 1.0
through 3.7 for no sorry change through to 1.5 by pressing 3.8 change
through to by 2.4 you can interrupt the toasting process by pressing
1.2 yeh insert 6.1 insert the 9.0 before 1.8 stop 4.2 number eleven
das Gerät wird ausgeschaltet the device is switched off 4.5 this is
difficult to judge out of context 1.7 because I assume 1.9 that this
1.2 is the accompanying text to a little picture 5.9 so maybe it's
debatable debatable 1.8 whether 1.7 it 3.1 normally would be
something like 1.0 off-on switch 2.4 or 2.0 off-on switch 1.9 or 1.5
off-on switch 1.3 if it's a picture of it off off-on switch in 1.1

off position 1.6 it's probably one of these silly switches where you
never know if they're off or on because they've got a a a sort of
Roman numeral one or a nought and nobody ever knows which is which
1.0 so that is typical 3.1 right number twelve 2.8 die Lifttaste
nicht hochschieben do not push up the lift key 1.9 em(r) I think I
prefer do not force 1.0 the lift 1.7 key in an 2.5 upwards direction
3.4 do not force the lift key in an upwards direction yeh number
thirteen 1.5 toasting a slice of bread that's okay 3.2 number
fourteen we've got please note again 3.9 please note number fifteen
wie bei allen Doppelschlitz-Toastern 1.7 kann es beim Toasten von nur
einer Scheibe 1.1 Unterschiede in der Bräunung beider Seiten geben
4.4 ah yeh this is hopeless so number fifteen 2.6 em(r) 3.0
differences 3.7 in the degree 2.7 of toasting 2.4 can be 2.0 found
2.8 in all 3.2 double 4.3 em(r) 17.3 I think I shall write cos I
can't remember what it says on the box of the toaster that I once
bought in England differences in the degree of toasting can be found
in all double-size toasters I shall call it double-size and not
double-slit or slot because that sounds very peculiar differences in
the degree of toasting can be found in all double-size toasters 1.4
when 1.6 only 1.0 one 1.3 slice of bread is inserted 2.3 just check
the German again 1.0 wie bei allen Doppelschlitz-Toastern kann es
beim Toasten von nur einer Scheibe Unterschiede in der Bräunung
beider Seiten geben yeh that's enough 1.0 good number sixteen Sie
sollten daher beim Toasten von nur einer Scheibe die nächstniedrigere
Einstellung der Bräunung wahlen oh that's clever I didn't know that
right although it's pretty sensible 1.7 eh(r) this translation is
useless 1.7 well half-useless 1.3 em(r) 1.1 I think probably just
straight select 3.3 em(r) 1.8 select 1.4 one 1.8 setting 1.0 lower
2.0 on the 1.2 dial or knob that depends on the model 1.7 select one
setting lower on the dial or knob when 1.3 toasting 1.7 a single
slice of 1.8 bread 1.7 number seventeen 1.8 Braun control-sensor okay
well nothing we can do about that 1.4 (clears throat) excuse me cos
we don't know what it is right 1.7 in the case of H T fifty-five 1.0
beim H T fünfundfünfzig mißt der eingebaute Sensor die
Oberflächentemperatur des Brotes und steuert danach die Toastzeit 1.4
ah we know what it is now! in the case of H T fifty-five the built-in
sensor measures the surface temperature of the bread and controls the
toasting time after this 1.4 that's not bad is it for a machine! my
God! in the case of H T fifty-five 5.3 hm(r) 3.2 so I think I shall
write here in the case 1.9 of the H T fifty-five model 3.5 although I
suspect 9.0 no I think this is German I think I shall say 1.1 the H T
fifty-five model 1.0 has 2.6 a built-in 5.4 sensor 1.6 has a built-in
sensor 2.5 which measures 5.3 the 2.3 sur-face temperature 6.1 of 1.7
the 2.9 hm(r) 1.5 I think it's sp bread'll be alright the H T fifty-
five model has a built-in sensor which measures the surface
temperature of the bread 1.3 and 3.4 (tuts) 3.3 ah! (groans) 1.4
steuern this damn word steuern! em(r) 8.6 cos it's not really limits
limits the toasting time and 3.6 controls the toasting time?   I'm
going to look up steuern in the dictionary because my memory is not
doing me 1.0 so let's see which is the best one we've got here 2.3
for steuern I could probably in fact 1.6 hm(r) I think I shall use
the German-English dictionary 1.6 the Collins (RB 1: steuern pp. 628-
629) 1.7 just to see if I can find the word I'm looking for 1.6 to
translate steuern which is on page 1.5 six two eight 1.3 six two
eight steuern 1.9 and we discover that steuern begins on page six two

eight (laughs) but in fact the actual verb is on page six two nine
1.8 so steer navigate pilot fly run control manage 1.4 take or follow
steer control in the sense of reg regulieren which controls the
toasting time? oh well 1.1 let's just see what else there is 1.0 head
drive 2.1 to be at the helm oh Lord above! 1.3 that's all so that's
useless 2.1 oh(sigh) the H T fifty-five model has a built-in sensor
which measures the surface temperature 1.0 of the bread 1.0 and 4.0
controls the toasting time 3.2 regulates! 1.6 which measures the
surface temperature of the bread 1.1 and regulates I prefer regulates
which wasn't in the dictionary 1.2 it just said control and regulates
the 1.3 toasting 1.2 time 2.7 for a joke I shall look up regulate and
see if it's in this dictionary at all as steuern (RB 1: regulate p.
541) 4.3 to check back the other way a well-known translator trick
1.4 regulate here we are on page five four one in the same dictionary
1.2 and regulate says 1.1 regulate says 1.1 in the sense of control
regulieren 1.2 flow expenditure traffic lifestyle 1.4 these things
happen in even the best-regulated families! 1.6 machine or mechanism
regulieren clock richtig stellen so obviously possible but not sort
of 1.0 very obvious 2.0 still I prefer that and regulates the
toasting time 1.9 nineteen 3.6 ermitteln Sie Ihren gewünschten
Bräunungsgrad mit Hilfe des Reglers 1.3 determine (reads text
indistinctly) with 1.1 the aid of the controller 8.5 hm(a) 2.0 I
think I shall here 1.5 em(r) 6.9 I think I shall write this translate
this communicatively 1.3 em(r) something like 1.2 get 1.2 (tuts) bad
writing get your toast 1.2 perfect 3.3 get your toast perfect 1.2 by
using 1.0 the 2.1 em(r) regulating I'm using the same word again get
you toast perfect by using the 1.8 hm(r) 8.0 (tuts) by using the 2.1
the graded 1.2 knob or the graded dial? 3.6 the regulating knob the
regulating dial? 3.0 get your toast perfect 1.3 by using 2.9 the
regulating 1.1 knob 1.0 or dial 2.2 and 5.8 another possibility would
be graded I'll have to think about that 2.8 a lot depends on what the
damned thing looks like 1.3 so 2.5 number twenty 6.1 bei gleicher
Brotsorte sorgt der Toaster für gleichbleibende Bräunung gleich ob
das Brot frisch älter oder gefroren ist 11.5 oh I see! 1.8 if you 1.9
use if you 2.3 if you use the same 2.5 if you 2.5 if you use the same
3.1 sort of bread 3.1 I might even insert the word daily here it sort
of makes it sensible but I'll put it in sort of 1.0 soft brackets if
you use the same sort of bread daily 3.1 em(r) 9.4 if you use the
same sort of bread daily it will be 3.5 toasted the same 1.5 whether
5.2 em(r) 1.3 whether it is fresh 6.9 hm(r) 1.8 a couple of days old
1.3 whether it is fresh a couple of days old 1.1 or 2.7 em(r) out of
the deep-freeze 7.9 number twenty-one run out of paper a national
emergency here we are 3.3 number twenty-one 6.9 es muß dazu jedoch in
beiden Schlitzen Brot gleicher Sorte und Beschaffenheit verwendet
werden 2.7 em(r) yeh 1.0 however 3.2 because this nevertheless is not
the right word 1.0 however the bread 1.6 used does have to 1.2 be the
same 1.4 in both 1.9 slits 1.9 twenty-two 3.3 oho sorry no I missed
something there the bread does have to be the same in both s well 1.2
the bread does have to be the same 1.6 gleicher Sorte und
Beschaffenheit 1.2 however the bread does have to be the same in both
slits 22.8 I think I shall leave it like that because 1.2 you can't
get any simpler 9.6 maybe it's 1.4 disputable 3.7 number twenty-two
falls Ihre Toaste zu hell ausfallen wiederholen Sie den Toastvorgang
mit entsprechend höher gestelltem Regler! 2.7 does this mean that
they will be burnt to a cinder? 3.2 that is very badly done in German

very badly done! 1.7 so 1.1 now number twenty-two 1.1 if your toast
2.7 is 1.3 too 1.9 eh(r) is not done enough (laughs) 1.7 is too is
not done enough 2.8 yes if your toast is not 1.1 done enough 1.0 cos
you talk about toast being 1.1 done if your toast is not done enough
5.0 comma 2.1 you should 1.8 no if your toast is not done enough 1.2
please reset 1.5 the 2.4 em(r) 3.4 or readjust maybe 3.3 the graded
1.0 dial 1.3 or knob 1.8 that's what's meant I hope 1.3 number
twenty-three 2.5 sollten Sie nur eine Scheibe toasten legen Sie diese
bitte in den mit dem Sensorpunkt gekennzeichneten Schlitz 8.4 hmhm(a)
1.0 so 1.1 the German or the translation is not so good 1.4 when 1.3
toasting 3.1 one 1.0 no one when toasting a single 2.6 when toasting
a single slice 1.1 of bread 2.7 please 3.5 insert the slice 2.2
insert sounds funny! please put 1.1 the slice 1.3 in the 5.2 slit
2.2 marked oops! 1.2 with the 2.4 red 2.5 dot I presume it's a dot
2.9 yeh 2.6 or with the red sensor dot I suppose 1.2 with the red dot
I think I'll leave it with a red dot cos it doesn't matter if it's a
Sensorpunkt or not 1.0 that just sounds good 1.7 in den mit dem
Sensorpunkt gekennzeichneten Schlitz yeh when toasting a single slice
of bread pleast put the slice in the slit marked with the red dot yes
I think I prefer that 2.0 twenty-four 1.5 der Brötchenaufsatz muß mit
den Federbügeln einrasten 1.0 the grid for rolls has to lock with the
spring clamps well that's nearly right! that's not bad! 1.8 so 1.1
the 2.3 grid for 1.2 rolls 5.2 em(r) 6.1 I think I'd say the grid for
rolls 1.3 oops! the grid 1.4 for rolls 2.8 has to 1.7 has to lock
no no sorry no nicht has to das wollte ich nicht! the grid for rolls
locks in place 3.1 locks in-to place the grid for rolls locks into
place 1.3 with 2.8 em(r) and then I think I'd put the number 5.1 or
maybe it's not necessary the grid for rolls locks into place with 1.3
I'll put that in soft brackets again with two 1.6 spring 1.0 clamps
1.0 or clips! (tuts) two spring clips they're more clips than clamps
the grid for rolls locks into place with spring clips or with two
spring clips that would be the normal thing to put in the number 2.4
twenty-five bei Verwendung des Brötchenaufsatzes schaltet der Toaster
unabhängig vom Regler automatisch auf eine Festzeit um 1.1 aho!(s)
3.0 em(r) 4.7 the toaster changes over independent 3.7 no I think I'd
begin with during use of 1.0 during the use of 2.1 maybe I wouldn't
say that at all but still 3.7 no I wouldn't say that at all that's
rubbish when the 2.8 grid 1.9 for rolls 3.3 em(r) (tuts) 1.4 when the
grid for rolls 3.4 oh when the grid for rolls 2.6 so number twenty-
five 1.7 ach ja! when the grid for rolls 1.3 eh(r) I did have some
word I was thinking about mounted or clipped on 1.0 when the grid for
rolls 1.9 em(r) 2.3 eh(r) 5.3 when the grid for rolls I did have a
good word for that at the back of my head somewhere when the grid for
rolls 3.8 hm(r) 20.1 is in position? 3.8 when the grid for rolls is
in position I think that's probably 1.4 better 1.1 when the grid for
rolls is in position 1.6 the comma the toaster 1.9 automatically 6.4
em(r) 8.6 automatically switches over 2.7 from 4.2 sensor 1.4
operation 2.3 to 1.3 a fixed 2.4 toasting 3.0 time 1.3 (sighs) right
number twenty-six 2.2 das Einschalten erfolgt ebenfalls mit der
Lifttaste oh yeh 1.6 em(r) 5.5 the 3.5 lift 1.7 key 1.1 or whatever
it was I said before 2.5 see if I can find that quickly what I said
before 7.0 so I did use lift key before hm(r) 1.1 the lift key 2.9
should be 1.9 depressed 4.6 the lift key should be depressed 8.3 to
start? yes to start toasting 4.7 the lift key should be depressed 1.6
as in 1.6 normal 1.7 operation 2.5 number twenty-seven 1.6 Reinigung

alle Modelle 1.2 cleaning all models 1.5 I think I'd prefer to write
cleaning instructions 5.0 all models 2.9 number twenty-eight 2.2
ziehen Sie vor jeder Reinigung den Netzstecker 1.1 pull the power
plug 1.0 before every cleaning 3.5 eh(r) oh damn! 1.8 oh what do we
say for that? oh(groan)! 3.7 make sure 4.8 that 1.4 the 1.7 toaster
2.9 has been 2.1 disconnected 1.8 from the 1.0 mains 2.7 supply 2.1
before 2.7 cleaning 2.4 number twenty-nine 2.3 a moist cloth suffices
for the cleaning of the casing 7.3 that's not bad for a machine so
1.1 change 3.3 suffices 2.4 to 6.0 is sufficient 7.2 number thirty
4.1 verwenden Sie keine scharfen und scheuernden Reinigungsmittel 1.9
em(r) use no s-couring 5.3 oh heavens above! yeh 1.0 keine scharfen
Reinigungsmittel whatever they are 4.5 em(r) 2.8 hm(r) I think I
shall look this up in the dictionary just in case I find a word like
intensive the only thing is which damned dictionary to use 6.2 for
cleaning stuff that's going to be very difficult 9.8 I think no hold
on em(r) 6.3 just occurred to me the word abrasive for scheuernden
that might be good I shall make a note of that 3.1 just so as I don't
forget it 1.5 keine scharfen yeh I'm gonna look up scharf in the
Collins dictionary (RB 1: scharf p. 566) 1.0 just to see if there's
anything that helps me 1.6 cos I'm sure that there's a good English
word for that but it won't occur to me 3.4 so scharf is on page five
six six 2.3 and it's divided up

(cassette change 1-2)

3.6 yes it says here in fact caustic 1.8 for Waschmittel and Lösung
6.4 so I think I might even take that I don't think a lot of people
would understand it although of course 1.7 there is or was such a
thing as caustic soda 17.3 hm(am) of course I shall not use all the
ones under section eight which are things like randy horny sexy
(laughs) blue 1.3 yes they're not quite the sort of cleaning stuff
that we had in our kitchen (laughs) 1.4 hmhmhm(am) 1.4 yes right 6.6
yes I think I shall take caustic 3.5 so 1.0 thirty 2.2 em(r) do not
use 1.0 the machine got the imperative wrong 1.7 do not use 1.4 any
1.9 em(r) 1.1 caustic 1.0 or abrasive 1.2 em(r) cleaning agents 7.5
right number thirty-one 7.4 Krümelschublade gelegentlich herausziehen
A und leeren 4.7 em(r) 8.7 I think I'll say regular intervals for
this gelegentlich 1.7 so obviously it is some sort of drawer that you
can pull out 2.3 pull no hold on remove! remove 1.8 remove the 1.0
crumb 3.8 compartment 3.6 at 13.1 remove the crumb compartment 1.6 at
regular intervals 4.7 to 1.9 empty and 1.3 clean 2.0 yes that's the
way we'd do it 2.4 thirty-one so number thirty-two 2.6 Änderungen
vorbehalten? (laughs) 1.2 reserve changes! oh dear! Änderungen
vorbehalten 1.2 em(r) the manufacturer reserves the right to (laughs)
em(r) 19.7 the 1.5 manufacturer's 3.7 specifications 1.3   spec-if-i-
ca-tions 1.9 may 1.6 be altered 3.2 without 2.0 notice 1.3 I'm sure
that there's some phrase like that for Änderungen vorbehalten 1.0 the
manufacturer's specifications may be altered without notice 5.6
number thirty-three 1.7 funkentstört nach den Richtlinien ding-dong
mit Erganzungsrichtlinie ho-hum 2.1 interference 2.1 oh crikey yes!
1.5 eh(r) 23.2 em(r) 10.5 eh(r) 9.7 I think I shall write
interference 19.4 suppressor 5.0 interference suppressor 1.0 fitted
1.3 is what sort of vaguely occurs to me 3.7 em(r) 2.7 fitted 1.1 in

accordance with 6.2 em(r) 2.6 in accordance with E C guideline if
that's what is called 1.3 in accordance with E C guideline seventy-
six eight eight nine 3.7 em(r) 1.0 in accordance with E C guidelines
9.6 with E C guidelines seventy-six eight eighty-nine 1.0 and 1.6
supplementary 1.7 guideline 4.1 eh(r) eighty-two four one nine nine
3.5 right ▪

APPENDIX D

PARTICIPANTS' VERSIONS ▪ PP I

1. Braun control-sensor toaster HT 55 Type 4104.

2. Instructions for use.

3. Operation for all models.

4. Note

5. The Braun toaster only operates when the crumb compartment is
    locked.

6. —Put the toaster into operation—
    Before —first— using the toaster for the first time, switch it
    on by pressing the button marked lift.
    (3) —then— Use the toaster a few times without actually putting
    in bread. This must be done in a room with the window open.

7. All types of bread may be toasted.

8. You can choose the degree of browning with the aid of the
    stepless regulator ie. lightly browned 1-6 and darkly browned
    6 upwards

9. The lift button is electro-magnetically controlled ie. it is
    held in place after being pressed down + automatically pops
    up —after— at the completion of the toasting process.
    - When pressed down, the lift button is held in place —by-an—
    electro-magnetically + pops up automatically on completion
    of the toasting process.

10. You can stop the toasting process at any stage by pressing the stop button.

11. The device is then switched off.

12. Do not push up the lift button.

13. Toasting a slice of bread.

14. Note

15. When toasting only 1 slice of bread in a two-slice toaster, there can be differences in the degree of browning of the two sides.

16. —When— Therefore, when toasting 1 slice of bread, you should select one setting lower for the degree of browning.

17. Braun control-sensor HT 55

18. The HT 55 has a built-in sensor which measures the surface temperature of the bread and from this controls the toasting time/the length of the toasting process.

19. The degree of browning can be —regulated— determined/chosen by using the regulator.

20. —If— When the same type of bread is being used, regardless of whether it is fresh, not so fresh or frozen, the toaster will try to obtain the same degree of browning.

21. However, the bread must be of the same type + inserted in the same manner.

- The bread, however, must be of the same type + be inserted
into the —slets— toasting slots in the same manner.

22. If your toast —turns—out— is not sufficiently browned, repeat
the toasting process with the —eontroller— regulator set at a
suitably higher level.

23. If you wish to toast only one slice of bread, then place it in
the slot which has the sensor point.

                         bread
24. The grid for ↑ rolls has to be connected with the spring
clamps.

25. When thés grid for bread rolls is being used, the toaster
decides on a toasting time, independent of the —the— regulator.

26. Again to initiate this toasting process, the lift button must
be pressed.

27. Cleaning methods. (all models).
     - To clean your toaster (all models).

28. Always plug out the toaster before cleaning it.

29. The outside of the toaster may be cleaned simply by using a
—moist— damp cloth.

30. Do not use acidic or scouring cleaning agents

31. The crumb compartment should be occasionally taken out +
emptied.

32. Subject to alterations.

33. Interference screening according the guidelines —82/ 76/889 and

supplement guideline 82/499 EWG.

PARTICIPANTS' VERSIONS ▪ PP II

Braun control-sensor toaster HT 55 Type 4104

Operating instructions:-

Operation [—how—it—works— (all models)

Note:

The Braun toaster only works when the —crub— crumb compartment is

locked.

Before using the toster for the first time switch it on by pressing

                                                using

down the lift key. Do this at first a few times ↑ without ↑ bread

                                               |

(beside an open window). |

         toast
You can —type— all types of bread.

                       desired   adjusting
You can choose the ↑ degree of toasting ↑ by using the stepless
                         —well-done— |
controller. (light to dark) |

The lift key is kept depressed by an electromagnet when the toaster

is switched on and rises automatically when the toasting process is

      a
comple↑ted.

                                                  —button—
You can interrupt the toasting process by pressing the stop key.

The device is switched off.

Do not push up the lift key.

Toasting a slice of bread:

Note:

                                                              the two
If you use a two-slice toaster to toast one slice of bread —there—
sides could be toasted to different degrees.
—can—be—difference—in—the—browning—of—both—sides.

                                                        use
When toasting only one slice of bread you should therefore ↑ one

browning setting lower.

Braun control-sensor HT 55.

In the case of HT 55 the built-in sensor measures the surface

temperature of the bread and then controls the toasting time.

—Fix—ye—the—
                        —toasting—
—Determine—your—chosen—browning—degree.

                                          level of toasting.
Adjust the controller to your chosen —browning degree.

For the same types of bread the toaster determines whether the

bread is fresh, old or frozen and ensures constant browning.

—Nevertheless— However to do this the same sort and texture of bread

must be used in both slots.

If your toast is too lightly done, repeat the toasting process with

the controller —set— at a higher setting.

If you only want to toast one slice then please put this into the

slot where the sensor point is situated.

The grid for rolls must be locked with the spring clamps.

When you are using the grid for the rolls
↑ the toaster automatically changes over ↑ to a fixed time
                                          |
(independent<u>ly</u> from the controller). |

                               be used to
The lift key can also ↑ switch on the toaster.

Cleaning (all models):

Plug   everytime   you clean it
—Pull— out the toaster ↑ before —every cleaning.—

   damp   to clean
A —moist— cloth sufficices —for—the—cleaning—of— the casing.

        strong or
Do not use any ↑ scouring cleaning agents.

—Pull— Occasionally pull out the crumb compartment and empty it.

Subject to alterations.

                                                with
Interference suppressed according to the guidelines 76/889 —and—

supplement guidelines— 82/499 EWG.

PARTICIPANTS' VERSIONS ∎ PP III

1. Braun control sensor toaster HT 55 Type 4104

2. Operating instructions.

3. Operation [operating?]

    (all models)

4. Important note

5. The Braun toaster can only be operated when the crumb

    compartment is locked.

6. Before using the toaster for the first time, switch on the ↑ empty

    toaster a few times —without—bread—and— with the ↑ toaster window open.

7. You can toast all kinds of bread.

8. You can select the desired —mode— colour using the continuous

    controller (1:light to 6:dark).

9. The —lift—key—/lift button is held —electro-magnetically— by an electromagnet when the

    toaster is switched on and is lifted automatically after

    toasting.

10. You can interrupt toasting by pressing the stop —key— button (1).

11. The toaster is switched off.

12. Do not push up the lift key

13. Toasting a slice of bread

14. Important note:

15. As with all double toasters ↑-/teasters-fer- there can be

     differences between both sides when toasting one slice of

     bread only.

                 toasting
     When -you-toast- one slice only,
16. ↑ You should therefore select one setting lower.

17. Braun control sensor HT 55

18. In the case of the HT 55, the built-in sensor measures the

     surface temperature of the bread and controls the toasting

     time accordingly.

               -req-
19. Set the -requested- desired colour using the controller.

20. When the same kind of bread is used, the toaster makes sure

     that the colour is the same whether the bread is fresh,

     slightly older or deep-frozen.

21. However, for this it is necessary to use bread of the same
                                         slots
     kind and consistency in both -sides-

22. If your toast is too light, you can repeat -toasting- the

     process using a higher setting. -of-the-controller-

23. If you -are-only- want to toast one slice only, please put it

     into the slot marked with the sensor point.

24. The fitting for toasting rolls must lock by means of the

     spring clamps / The spring clamps of the fitting for toasting

     rolls must lock [snap shut.]

                                               rolls
25. When using the fitting for toasting -rules-, the toaster

automatically switches to a fixed time/standard time

independently of the controller/setting of the controller.

26. —The—toaster— The lift —key— button is also used to switch on the

    toaster.

27. Cleaning (all models).

    Always
28. ↑ Pull out the plug/mains plug before cleaning.

29. A moist cloth/damp cloth is sufficient for cleaning the

    casing.

    [Use no caustic or scouring cleaners]
30. Use no strong cleaners or scouring powders/scouring products

         and empty
31. Pull out ↑ the crumb compartment (a) occasionally.

32. The manufacturer reserves the right to change specifications.

    (—befer— without prior notice).

                                                        EEC
33. Screened against radio interference according to ↑ guidelines
         (including)
    76/889 with supplement guideline 82/499 —EWG— —EEG/EG—

PARTICIPANTS' VERSIONS ▪ PP IV

1. all correct providing maker's name makes sense for English people

2. O.K.

3. Method of Operation

4. —O.K—. Please note:

5. The toaster can only be operated after the crumb compartment has been closed.

6. Before use, the toaster should be put into action ↑ without $^{several\ times}$ any bread in the slots and after having opened a nearby window.

7. All sorts of bread can be toasted in this model.

8. The —suitable— —appropriate— correct degree of toasting can be achieved by setting the knob/dial [according to model] to the level required e.g. 1 light 3 medium 6 dark

9. The lift key is electromagnetically controlled after being pushed down/depressed and automatically returns to its normal position after toasting.

10. CHANGE "through" to "by" - INSERT "the" before stop.

11. Debatable: OFF-ON switch. OR OF-ON switch in OFF position

12. Do not force the lift key in an upwards direction.

13. O.K.

14. Please note.

15. Differences in the degree of toasting can be found in all
    double-size toasters when only one slice of bread is inserted

16. Select one setting lower on the dial/knob when toasting a
    single slice of bread.

17. O.K.

       The
18. —In—the—ease—of— HT 55 model has a built-in sensor which
    measures the surface temperature of the bread and regulates
    the toasting time.

19. Get your toast perfect by using the {regulating/graded}
    {knob/dial}

20. If you use the same sort of bread (daily), it will toasted the
    same whether it is fresh, a couple of days old or out of the
    deep freeze.

21. However, the bread used does have to be the same in both
    slits.

22. If your toast is —tee— not done enough, —yeu—sheuld— please
    readjust/reset the graded dial/knob.

                                                         put
23. When toasting —ene— a single slice of bread, please —insert— the
    slice in the slit marked with the red dot.

                                                to
24. The grid for rolls —has—te— locks in↑ place with (two) spring

-clamps- clips.

25. -During-the-use-of-

    When the grid for rolls is in position, the toaster

    automatically switches over from sensor operation to a fixed

    toasting time.

    To start toasting
26. ↑ the lift key should be depressed as in normal operation.

27. Cleaning instructions. All models.

28. Make sure that the toaster has been disconnected from the

    mains supply before cleaning.

29. CHANGE "suffices" to "is sufficient".

30. Do not use any caustic or abrasive cleaning agents.

31. -Pull-ou-

    Remove the crumb compartment -and- at regular intervals to

    empty and clean.

32. The manufacturer's specifications may be altered without

    notice.

33. Interference suppressor fitted in accordance with EC

    guidelines 76/889 and supplementary guideline 82/499.

Footnote: wanted to check in GB, whether family/twin toaster etc.