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ABSTRACT
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author discusses various parameters such as individual and national
difficulties, the chronological factor and its effects on
interstructural and intrastructural interference, and the type of
learner concerned. He comes to the conclusion that the setting up of
scales of difficulty requires the cooperation of linguists as well as
of pedagogues, psychologists, and representatives of other
disciplines. (Author)

VARIABLES IN A HIERARCHY OF DIFFICULTY[1]
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abstract:
This paper is an attempt to show what parameters come
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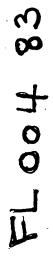sentatives of other disciplines.

Undoubtedly the problem of difficulty plays a very
important role in connection with language teaching
and language learning. It is important for the pro-
ducer of language material because in his ordering
of linguistic facts the latter must know something
about the problem of difficulty from the learner's
point of view. His staging and sequencing of the
material[2] will depend upon his idea of what lin-
guistic difficulty is. Knowledge of linguistic
difficulty is also of basic importance to the
evaluator of tests, his evaluations being partly
determined by his idea of linguistic difficulties.
Language tests as well as error analysis will have
to be taken into account if they are to be objective
and just.

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[1] Paper read to the Pacific Conference on Contrastive
Linguistics and Language Universals, Honolulu,
11th-16th January 1971.

[2] M.A.K. Halliday, A. McIntosh, P. Strevens, The
Linguistic Sciences and Language Teaching (London,
1964), p.204f.

In dealing with linguistic difficulties two problems
have to be considered separately: What is a learner
problem? And once it is known what a learner problem
is, one has to decide whether it is advisable to avoid
concentrations of these or to use some kind of shock
therapy by piling up difficulties at certain stages
of the learning process.

As to the second question, one possible approach
consists in providing adult learning material in which
difficulties are concentrated at the beginning, on the
assumption that there are some learners who prefer to
take hurdles at the very beginning before going on to
easier stages. The underlying principle is very often
also a contrastive one, though in a paradoxical way.
Instead of following the path of similarity and thus
making the learner believe that the similarity covers
the whole area of certain functions, one prefers to
begin with differences in order to avoid mistakes via
over-generalization. Thus a course for learners of
German in a BBC programme sets out with the present
perfect in connection with the auxiliary sein (= 'to
be') instead of haben (= 'to have') in order to prevent
British learners of German from assuming that the
German present perfect is always formed by means of
haben. From a contrastive point of view it would
certainly have been much easier to start out with
haben before proceeding to sein because there is a
great deal of agreement between the two languages on
this point. Tests would have to demonstrate which way
is the safer one.

However, priority has to be given to determining what a
linguistic learner problem is. Some linguists like
R.P. Stockwell and J.D. Bowen have established what might
be called a kind of linguistic logic of the hierarchy
of difficulties. Basing their assumption upon the
concept of transfer (negative transfer, positive
transfer, and zero transfer), they try to tackle the
problem of difficulty by focusing their attention on
the kinds of choices that exist in any given point of
a language. At the phonological level they distinguish
between optional and obligatory choices, to which they
add a third set: zero choices, i.e. choices which exist
in one language, but not in the other. Thus they arrive
at a scale of eight difficulties in connection with

English and Spanish[3]. The notion of optional choice
refers to the possibility of selection among phonemes,
while the notion of obligatory choice refers to the
selection of conditioned allophones. Within the eight-
scale system of difficulties the highest degree of
difficulty is to be found when a learner of a language
faces an obligatory choice in the target language while
his source language has a zero choice in this particular
case.

Here and in other cases in connection with the whole scale
one cannot help feeling that the decisions are somewhat
arbitrary. In many cases distributional problems (e.g.
the distribution of German voiced /z/ versus English
voiceless /s/ in initial position) seem to be more
difficult for German learners of English than the
acquisition of entirely new sounds like /θ/ and /ð/.
Nor is it clear why obligatory rules automatically
rank higher as far as the degree of difficulty is con-
cerned than optional rules.

Applied to syntax, the conception of a hierarchy of
difficulties becomes even more problematic. The under-
lying assumption is the same:

> "The construction of the hierarchy of difficulty
> depends on the assumption that some correspondences
> are more difficult to master than others (including,
> as correspondences, those instances where a rule in
> one language finds no corresponding rule in the
> other, or where a category in one is unmatched by
> a category in the other)."[4]

Again the authors ask what the logic of such a hierarchy
is. As constant factors are chosen: propriety, situational
context and cultural viability, the variables are either
obligatory or optional choices as before, though in a
different sense. In the case of positive matches we find
structural correspondences as well as functional-semantic
correspondences. In the hierarchization of phonology
it was necessary to compare only categories of choice

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[3] Cf. R.P. Stockwell and J.D. Bowen, The Sounds of
English and Spanish (Chicago, 1965), p.10; see also
G. Nickel and K.-H. Wagner, "Contrastive Linguistics
and Language Teaching", IRAL 6(1968), p.245f.

[4] R.P. Stockwell, J.D. Bowen, J.W. Martin, The Grammatical
Structures of English and Spanish (Chicago, 1965),
p.282.

without reference to functional-semantic correspondences;
here things become more difficult because of the presence
of the semantic parameter. The authors end up with a scale
of sixteen difficulties. This scale is also based on some
kind of linguistic logic, but is not transparent either
in all cases. Again it is taken for granted that a
construction not contained in the source language but
contained in the target language belongs to the class
of greatest difficulty. In most cases this is certainly
true, but it is doubtful, whether it is always true.
Then it is taken for granted that option and obligation
follow each other in a sequence of difficulty. It is
also taken for granted that the absence of structural
correspondence makes things more difficult than the
absence of functional-semantic correspondence. This has
to be tested and proved yet. Moreover, the scale
established is much too broad since it ignores the
phenomenon of partial agreement between constructions.
For instance, the German and English perfect partially
agree in form and function[5].

There is no question that a great deal of arbitrariness
underlies this selection of parameters for setting up a
scale of linguistic difficulties. But the authors know
that apart from this hierarchy of difficulty there are
other factors to be taken into account such as 'function-
al load', 'potential mishearing', and 'pattern congruity'[6].
They are well aware that "Matching these criteria
against one another is no easy task, and there is
clearly no single 'right' or 'best' sequence of presen-
tation"[7]. But in spite of their considering the other
factors in addition to their linguistic hierarchy of
difficulties the whole procedure is, in the main, still
based on some kind of linguistic logic. Experiments
presenting material based on different criteria might
well prove one day that learners' difficulties have as
little to do with linguistic difficulties as general
logic has to do with linguistic logic in the reality
of a given language. What we need here is more experi-
mental work.

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[5] Cf. G. Nickel, "Contrastive Linguistics and Foreign-
   Language Teaching", in: Papers in Contrastive
   Linguistics, ed. G. Nickel (Cambridge, 1971).

[6] Cf. R.P. Stockwell and J.D. Bowen, The Sounds ...,
   p.16f.

[7] ibid., p.17.

The authors themselves are not against such experiments:

> "The hierarchy is a set of predictions which must be tested against observations of problems students do in fact have. Such observations are more difficult to make than one would suppose: we were once told by a distinguished professor of Spanish, whose native language is English, that we made too much of the problem of gender agreement - it took no more than 15 minutes to explain, and then one could forget about it. Within 15 minutes after that he made no less than half-a-dozen errors in gender agreement himself. So it is important to distinguish between what may be difficult to explain (preterit, imperfect, indicative, subjunctive) and what is difficult for the student to internalize - the two may or may not be the same."[8]

This is certainly a very good observation. Most of the interpretations of difficulties and most of the presentations of learning material are based anyway on the teacher's and not on the learner's point of view. If we ever intend to set up more successful material including multimedia teaching systems, we will have to find out more about the learning processes and the learner's mentality.

What other parameters of difficulty are there? First of all, following the contrastive lines explained above, one would have to distinguish between national and individual difficulties. While some pedagogues think that the phenomenon of objective linguistic difficulty does not exist in foreign-language learning, linguists will certainly hold that there is such a thing. There can hardly be any doubt that the learning of a completely unrelated language like Chinese presents an enormous number of difficulties for a learner whose source language is either English, French or German[9].

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[8] Cf. R.P. Stockwell, J.D. Bowen, J.W. Martin, The Grammatical Structures ..., p.282.
I am reminded here of similar conditions referring to the distinction between the uses of 'who' and 'which' in English. Many German teachers can be found who are able to clearly explain the theoretical differences without being immune to the wrong use of 'which' instead of 'who'.

[9] C. James in his article "The Exculpation of Contrastive Analysis", in: Papers in Contrastive Linguistics enumerates and tries to measure the difficulties from national points of view.

National difficulties are mainly based on contrastive
interference problems with their negative transfers. On
the whole, we can say that related languages will present
fewer problems of difficulty than unrelated ones. It is,
however, advisable to distinguish between decoding and
encoding processes. Certainly the similarity between lan-
guages will help in the decoding process but might well
present great difficulties in the encoding process
because of the relationship between lexical items and
constructions, which might be similar on the formal
side but different on the functional-semantic side. Since
formal correspondence tends to more or less automatically
arouse functional-semantic hopes of equivalence, relation-
ship may be quite dangerous. All learners of Romance
languages will know the difficulties when learning the
second or third Romance language[10].

Linguistic difficulties will also be diminished through
strong national motivation. When we speak of national
talents for the learning of languages we should really
speak of parameters like national motivation, good school
systems, and relatedness of languages. Motivation is
one of those major factors in language learning likely
to reduce problems of difficulty in the light of some
kind of pedagogical optimism.

In our matrix of parameters of difficulties we also have
to distinguish between different kinds of linguistic
level. On the whole, especially if learned very early,
phonology and phonetics will cause, relatively speaking,
fewer difficulties than, for instance, the complex
systems of syntax. There is more 'directness' in being
faced with a phonological system than in being faced
with the complexity of syntactic phenomena. One also
has to consider that syntax involves phonology but
not vice versa, i.e. attention has to be paid to several
phenomena including semantics, morphology, etc. This
concentration upon several points at the same time
certainly presents greater difficulties than does con-
centrating upon one point only like the pronunciation

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[10] W.R. Lee, "Thoughts on Contrastive Linguistics in
the Context of Language Teaching", in: J.E. Alatis,
ed., Report of the Nineteenth Annual Round Table
Meeting on Linguistics and Language Studies. Monograph
Series on Languages and Linguistics 21(Washington, D.C.
1968).

of a given sound. The subtler the distinctions become from an intrastructural point of view the more difficult these items become for the learner.

This is particularly true with regard to style and synonyms. We all know that the progress made in learning a language is relatively rapid in the beginning stage and then slows down at the advanced level. This means that curriculum researchers will have to investigate whether one should not learn more languages on a lower level rather than pursue one or two up to perfection, including the climbing of stylistic peaks. Since it is not so much the communicative aspect that is dealt with at an advanced level but rather the expressive and artistic functions of the language, motivation seems to dwindle, too. Thus an increase in difficulties may also be due to the latter fact.

There is another factor implied in the above statement, i.e. the factor of chronology. Undoubtedly some of the difficulties arise because of intrastructural generalizations due to chronological priority given to certain lexical items and structures. We all know that patterns learned first have priority over patterns learned at a later date because of the convenient simplicity of these first basic structures. This kind of intrastructural interference will take place even against an interstructural contrastive background. Thus Norwegian learners of German will very often use word order of the main clause type in subordinate clauses even though conditions in their mother tongue are similar to those in the German target language because the main clause word order had been deeply engraved in the brains of the learners. S.P. Corder quotes examples of the type *'She is a beautiful' formed on the analogy of the very frequent and well-established pattern 'She is a teacher', which are to be found especially with speakers who have no articles in their source languages. Undoubtedly chronology together with the hidden traps of too intensive pattern drills may increase difficulties.

It should be clear by now that the problem of difficulty must be tackled not only on an interstructural basis but also on an intrastructural one. If distinctions within one language are clear enough, difficulties will decrease. Though, for instance, the use of the present perfect and the preterit in English is different from the use of these two tenses in German good examples and cognitive insights at a

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later stage will help the learner to distinguish
between these two tenses in spite of contrastive
difficulties. On the other hand, the distinction
between the expanded and non-expanded form in English
'he is sitting' <u>vs</u>. 'he sits' is not only difficult
for a German learner of English because of
interstructural contrastive difficulties but also
because of intrastructural problems. We all know that
the use of these two forms with their close connections
with the character of the verbs, tense, etc., involves
quite a lot of distinctions ranging between
grammaticalization and stylistics, which are sometimes
difficult for the native speaker of English, too. Close
examination may well prove that objective difficulties
are also present to a certain degree where even a
native speaker when learning his mother tongue is
inclined to make errors in particular cases.

Undoubtedly difficulties arise also from the fact that
more than one target language is being acquired. In
some cases, especially at a beginner's level, this
interference may be even stronger than the interference
between mother tongue and first target language. In
trying to get away from his mother tongue a learner
will, often subconsciously, decide to choose an item
from another target language rather than fall back
upon his mother tongue. There seem to be situations
in which the opposition is mother tongue on the one
hand and target languages on the other. This attitude
towards target languages as a kind of pool has to be
considered when judging errors made by learners with
more than one target language, especially when the
target languages are also related among themselves.

In dealing with the problem of difficulty the whole
context of the test in which a certain difficulty is
present must be taken into account. We know that in
oral usage more mistakes are made than in written usage
because in the former case time for checking and
reflecting is often very limited. Moreover, in oral
usage the factor of personal engagement in a lively
conversation or discussion plays an important role,
a factor which tends to increase the ratio of
interference phenomena of all kinds.

Written tests involve similar problems. Multiple
choice tests or translations, especially if the latter
type is connected with selected chapters of grammar
and lexis, will diminish difficulties because the learner
is aware that he has to concentrate on this particular

kind of test, its problems and questions. On the other
hand, tests like retelling of stories or impromptu essays
with lively contents will tend to draw away the learner's
attention from the formal linguistic side to the contents
side of the test, thus increasing difficulties. Undoubted-
ly the latter type is a more natural type of test though
at the same time a more tricky one because of the traps
present there. This again is very important for the
evaluation of errors and their grading[11].

Thus there is a wide range of difficulties extending
from national difficulties to individual ones. Where
the individual is concerned we will also have to consider
speech defects and certain linguistic 'obsessions' that
are due to some negative experience in the classroom
where a pupil was laughed at or criticized too severely
in connection with an error so that this error got
firmly impressed upon his mind setting up subjective
difficulties based on sociological experience.

Apart from national and individual differences diffi-
culties are closely connected with certain types of
learners. Thus there may be learners who have no
problems in connection with paradigmatic dimensions
but great difficulties in the syntagmatic dimension.

Furthermore, it would have to be tested, to what
extent visual aids help to diminish or increase the
degree of difficulty. The same applies to the cognitive
element that may in some cases reduce, in other cases
increase difficulties.

The latter statements implicate the role of pedagogics.
While I believe in certain objective and inherent
difficulties of language items from the national and
individual point of view I do not exclude the important
role of pedagogics as a factor decreasing or increasing
difficulties. I am convinced that the problem of diffi-
culty cannot be solved from an exclusively linguistic
point of view, but only in its complete context of
linguistic presentation and pedagogical embedding.

I am somewhat doubtful about the possibility of measuring
difficulties mathematically as has been attempted in the
recent past in the field of phonology. Until we know

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[11] Cf. G. Nickel, "Grundsätzliches zur Fehleranalyse", in:
G. Nickel, ed., Angewandte Sprachwissenschaft und Unter-
richtspraxis. Vol.1: Fehlerkunde (Berlin, 1971).

more about learning processes within the process of
language acquisition and until we know what it means
to be gifted for language learning, we will not be
able to measure difficulties completely on an ob-
jective basis. While some pupils have no problem in
imitating even the strangest sounds because of a
certain musical gift and a certain artistic flair
combined with a general uninhibited natural attitude,
others lack that talent. This can also be shown in
connection with the differences between boys and girls
at an early age when girls tend, on the whole, to be
freer and less inhibited than boys when learning
foreign languages.

Linguistics, psychology, pedagogics and other disciplines
will have to cooperate in setting up scales of difficulty.