

THE USE OF ERGATIVE VERBS BY GERMAN LEARNERS OF
ENGLISH.
A PILOT STUDY INTO INTERLANGUAGE

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1. The hypothesis

The investigation being presented here has a long-standing general observation as its starting point: German learners of English tend not to exploit the English verb system as fully as the languages would allow them to do. In reading and in conversations with native speakers, they time and again meet phrases whose verbs they know well as lexemes, but which they, nevertheless, would not have used themselves in the way native speakers do. This happens mainly within the dichotomy *transitive* vs. *intransitive* verbs. The verb *work*, for example, well known to every German speaker of English, will frequently be used by Germans in a sentence like

(1) I never work on weekends.

but almost never in a sentence like

(2) He really works his people too hard.

The verb *burst* will be found in sentences like

(3) The tyre burst and the car crashed into a lamppost.

but hardly ever in

(4) The car burst a tyre and crashed into a lamppost.

This general observation can be made the starting point of a hypothesis which — so far only in vague terms — could run thus: German learners of English do not acquire a native speaker-like competence in handling the transitive/intransitive-opposition.¹ This is so particularly if an English verb lexeme can function in both sub-systems.

¹ In order to limit the scope of the investigation, the terms *transitive* vs. *intransitive* are used in the traditional sense as exemplified in sentences 1, 3 vs. 2, 4, and all other

2. *The general framework for explanation.*

The general framework for explaining the second language acquisition/learning process, as it has been developed in the wake of Chomskian linguistics and later, leads us to presume that such observations are not accidental, but can be interpreted as the product of mental processes which cause a language other than the first one to be adopted by a speaker/listener.

This general framework rests on the assumption that adopting a language, in whatever situation and under whatever conditions, is an essentially cognitive process in which the person undergoing this process plays an active part and a part which is, to a certain extent, independent of the quantity and the nature of language experience provided by other people. Its most important feature is the re-organization of empirical material according to principles which are, at least partly, set by the natural cognitive endowment of human beings to adopt a first language and further languages. At the moment, the active nature of this process is generally assumed, in opposition to earlier behavioristic explanations; however, there remain controversies as to the inner mechanism of this activity, and to the extent to which it is (in)dependent of linguistic experience and other variables, e.g. social environment and motivation.²

The explanation of the way in which a second language is adopted has gained much insight by differentiating between so-called natural and formal (or: guided) conditions. This has led to the setting up of the dichotomy between 'acquisition' and 'learning'. As the terms reveal, language acquisition is supposed to be triggered off by linguistic contact in natural situations, whereas language learning is supposed to be triggered off by formal teaching. Acquisition is supposed to be a direct, intuitive way of adopting a language, whereas learning uses the means of conscious construction and comparison with rules.³

It remains doubtful whether the distinction is a valid one, because there is hardly any natural acquisition environment which does not contain elements of formal guidance, and there is hardly any formal teaching situation which does not contain elements of natural acquisition. As this is so, the tearing apart of elements which actually always occur together, if with varying proportions,

types of transitivity are ignored, e.g. intensive complementation with measures ("This bag weighs 100 pounds"), the various patterns of complex transitive complementation, and the difference between "He grows tomatoes" and "He grows a beard".

² For an early biological description of this view, still in the immediate wake of Chomsky, see Lenneberg (1967); for a comprehensive discussion see Clark and Clark (1977). The historical way of this conception, with reference to language teaching, from Chomsky to a fairly contemporary view is mirrored in the contributions of Oller and Richards (1973).

³ See Krashen (1982), and in earlier publications.

must at least be questioned as something artificial. This fact should make us assume one basic faculty — rather than two — to adopt a language and then try to analyse the way it works under varying conditions.

On the other hand, this distinction has its value. Observing the way in which people pick up a language which they are not formally taught has made it obvious that the same person with the same mind cannot be reduced to a passive entity under formal learning conditions, an entity which just soaks up and reproduces what the teacher said and, unless he does this correctly, has failed. The distinction has, thus, made it clear that the language learner very likely is an active cognitive entity just as the language acquirer is, and that teachers may have to re-orient their teaching in the light of this insight.⁴

The investigation being presented here is part of a wider program to spread this idea under the heading of 'learner-oriented teaching'. It applies to foreign language teaching in a school within a community where the foreign language is not normally spoken, this being the situation with which most young Germans are confronted in their first second/foreign language. 'Learner-oriented' means that the learner's way of processing the language experience, which is provided for him by the teaching (that is the teacher and the teaching material), should set the pattern for the re-organized teaching itself. 'Learner-oriented', thus, does not mean just following the learners' wishes and interests, though they are of no small concern for motivation. It means meeting the learners' cognitive personality.⁵

According to the cognitive view explained above, the experience of language data on the part of the learner and the acquirer triggers off an act of recoding, which essentially is an act of generalization. For the subject this act means finding the structure in the utterance, the type in the token and adapting this insight to new utterances. If the act of generalization conforms to the accepted norms of the language, 'correct' utterances are produced; if, however, it deviates from these norms, errors occur which, however, mark a true act of learning. It is this very deviation from the norm which indicates the independent contribution of the subject in the process of interiorization.⁶

There is no essential difference between learning and acquiring in this respect. The difference is to be looked for somewhere else. In the acquisition process the subject himself sets up the hypotheses according to which he forms

⁴ Modern second language acquisition studies were started by Ravem (1968), carried on in the United States by Hatch (1978), Burt and Dulay (1980), and many others; in the Federal Republic of Germany by Wode (1981), Felix (1982), and many others. Instead of a bibliography see Felix (1982:17-18), an overview which lists 66 projects. For 'acquisition' vs 'learning' see Krashen (1982), critical Stevick (1982).

⁵ The outline of this program is explained in Krumm (1978) and Bausch and Raabe (1978), Hüllen and Jung (1979: 11-13).

⁶ See Corder (1973:256-94), Hüllen and Jung (1979:133-48).

his rules; he extracts these rules from experience. In the learning process the subject is told these rules or they are at least suggested to him by manipulated experience, so he can accept the correct hypotheses right from the start. This is supposed to facilitate the procedure. There is, however, the disturbing fact that this facilitation does not seem to be really successful.

This links up with the general experience that mistakes play a much longer role in language learning than in language acquisition. It is the interlanguage hypothesis⁷ which pays tribute to the commonly known fact that learners of a foreign language, acquiring it in school surroundings, normally cannot succeed in reaching a full competence, but only an intercompetence which, however, is not just a limited competence permeated with mistakes, but a semi-independent and systematic language of its own, whose difference from the native speaker's language mirrors the learner's special rules of re-coding. The learner's interlanguage is an intersystem between his source and his target language, the model for which are so-called contact languages.

Contrary to learners' interlanguages, true contact languages are stabilized systems which change as all natural languages do, but which nobody wants to change in a certain direction. However, interlanguages are systems susceptible to permanent change in the direction of the native speaker's norm, as long as learning actually takes place. It is only when partial or complete fossilization sets in that stabilization occurs, which, for pedagogical reasons however, is not wanted. Moreover, contact languages are described in terms of their historical growth and their resulting location between two or more source languages, whereas the interlanguage of learners can only be described in terms of individual growth and individual learning. Terms such as language transfer, transfer of training, strategies of second language learning, strategies of second language communication, and overgeneralization have been identified (Selinker 1974).

Terms and corresponding conceptions like the ones mentioned cover a wide range of phenomena and have their merits as well as their shortcomings. Among the shortcomings is the broad generality of these strategies which might almost be said to be applicable to all learning procedures irrespective of the object to be learnt. Transfer of previous knowledge (language transfer), transfer of training, and overgeneralization can be found in mathematical as well as in historical learning or even in any sort of craft training. Speaking of strategies of second language learning and second language communication is of little value unless you specify what these strategies are like.⁸ Besides, it is hardly possible to precisely discern language transfer and overgeneralization in a satisfactory way, as most mistakes can be explained both ways.

⁷ See the contributions in Schumann and Stenson (1974), where the way from contrastive analysis via error analysis to the interlanguage hypothesis is traced.

⁸ See, e.g. Faerch and Kasper (1980).

Among the merits count the denotation of the fact that a learner's inter-competence does not produce an unordered mass of utterances, some of which are right and some of which are wrong. Furthermore, there is the denotation of the fact that the intercompetences of individual learners contain many comparable phenomena which show that there actually are rules at work which apply to all learners irrespective of individual circumstances. Despite its shortcomings and some other difficulties, the investigation being presented here has been located within the context of the interlanguage hypothesis. It rests on the all important assumption that a foreign language is not adopted in the classroom by habitualization, which occasionally goes wrong because of interference (hypothesis of contrastivity), nor in the same way as a first language (hypothesis of identity), but that it is acquired and learned according to genuine regularities.⁹

Guided by the general hypothesis about transitive and intransitive verbs mentioned above, and leaving all queries about the instability, permeability¹⁰, and method of description of interlanguages¹¹ aside, the investigation was undertaken as an attempt at describing the interlanguage of German learners of English within one particular section of the language to be learned. In order to do this a battery of tests was planned and given to students of the University of Essen, FRG. The basic idea of the tests was that the statistical frequency of one or the other form allows an insight into the prominence and measure of availability of this form within the intercompetence of the German users of the English language who underwent the tests. This is why percentage scores are given which have as their basis (=100%) the total sum of possible utterances (tokens) within each test.

The examinees were chosen at random. Most of them had learned English for nine years before entering university. A few had learned for a shorter, some even for a longer time. They had studied two to eight semesters. So all of them could be considered as 'advanced' in the everyday understanding of the word. This means that the groups of examinees were homogeneous in that everybody had learned the English language as a foreign language during a full school course and was studying at university level. The groups were not homogeneous with respect to individual learning conditions, teaching material, teaching methodology, etc. It was assumed that, at the level of advancement reached, these features could be neglected.

Tests 1 — 4 were given to 40 students in group 1 and another 40 students in group 2. Tests 5 — 9 were given to 32 students in group 1, 19 students in group 2, and 24 students in group 3. The respective groups 1 and 2 in the first

⁹ See Bausch and Kasper (1980).

¹⁰ Tarone, Frauenfelder and Selinker (1976); Adjemian (1976).

¹¹ For an overview of problems see Knapp-Potthoff and Knapp (1982).

and the second test battery were not identical. Thus, 155 examinees were involved in the investigation. They are supposed to have all the advantages of a random group. There is no reason to believe that some hidden criterion has been in effect when the groups came together. Nevertheless, results of the tests are looked upon as descriptive only for this group, and no generalizations are attempted.

3. Verbs of causativity in English and German

The first part of the project was devoted to verbs of causativity, because, generally, there is a causativity transformation between intransitive and transitive verbs of comparable meanings, as in

(5) to run vs. to run a machine, to die vs. to kill, to be legal vs. to legalize. The investigation of verbs of causativity was to elucidate the handling of the intransitive vs. transitive dichotomy.

The element *cause* plays an important role in the formation of the English and the German verbal systems.¹² It is a common notion to both languages, and presumably a language universal. Foreign language learners, thus, need not learn the element *cause* in itself, but the use of verbs which contain it in one way or the other. Of these we find four in both languages:¹³

i. ergative verbs, that is transitively used verbs which, without any morphological change, can also be used intransitively and whose transitive version is connected with the intransitive version by a causativity transformation. Examples are in English: *to run/to run a machine, to break/to break a window, to work/to work somebody (hard)*; in German: *anhalten/ein Auto anhalten, beginnen/einen Vortrag beginnen, fahren/ein Auto fahren*.

ii. Lexicalized causative verbs, that is transitive verbs which again are connected with intransitive verbs by a causativity transformation but which differ from ergatives in that they have a different morphological surface structure. The non-causative verbs, as a rule, have a resultative meaning. Examples are in English: *to kill/to die, to fell/to fall, to trip/to stumble*; in German: *fällen/fallen, verschwenden/verschwinden, sprengen/springen*. Lexical restrictions for the use of such verbs may vary more than with reference to the element *cause*, as the German examples show.

¹² See Lyons (1977:488-94); besides Fodor (1970), McCawley (1971), Fillmore (1971), Babcock (1972), Lakoff and Ross (1972), Kastovsky (1973).

¹³ This section follows Lyons (1968:350-71) and Kastovsky (1973); see also Hüllen (1982).

This group can be further broken down into diachronically related pairs and diachronically unrelated pairs like: *to fell/to fall, to set/to sit and to kill/to die, to show/to see* etc. (Lipka 1982).

iii. Derived causative verbs, that is verbs morphologically derived from a non-causative basis (adjectives or nouns). The derivational parts are either suffixes as in English *legalize, humidify, soften*; or they are prefixes as in English *enlarge, outlaw, benumb*; or they are zero-morphemes as in the verbs *warm (up), open, jail, pigeon-hole (a letter)*. A particular group of causative prefixes are negatives as in *unsaddle, defrost, disintegrate*. In German, this group is represented mainly by prefixes as in *verfeinern, erbittern, befreien, zerkleinern, unterbrechen*. With suffixes it is only words of foreign origin like *harmonisieren, amerikanisieren, legalisieren* which form derived causative verbs.

iv. Analytical verbal phrases involving a causative auxiliary, that is phrases with verbs like *let, make, have, get*. Examples are in English: *let (us) go; (the court) make(s) (bussing) legal; (Mary) had (John) come (to the meeting); get (the thing) done*; in German: *fallenlassen, halten lassen, (zum Arbeiten) veranlassen (=antreiben), (bekannt) machen*. It is not possible to discern in all cases such analytical verbal phrases from mere collocations as in *begin to look, catch sight of, set fire to*. It very often is a matter of definition whether the functional verb involved is considered an auxiliary or a full verb (Lipka 1982).

These four groups of causative verbs were incorporated in the tests, without causatives with negative prefixes, however. Structurally speaking, each class of causative verbs has its counterpart in both languages. Thus, the tests were to find out the interlanguage profile of examinees at a linguistic point where structural parallelism is to be found between source and target language.

4. Description of tests 1 - 4 and results¹⁴

Test 1 was devoted to language production. It demanded translation of non-contextualized German sentences into English. The productive skill of the candidates was, thus, directly tied to their German source language. Examples of test items are:

(6) Diese traurige Erfahrung ließ ihn beträchtlich altern.

(7) Seine schlechten Manieren verärgerten mich.

Sentences were chosen in which all four classes of causative verbs could be used.

Test 2 was again devoted to language production, but without any direct

¹⁴ These tests are also described in Hüllen (1982), however not tests 5-9.

reference to German. It demanded construction of sentences out of two elicitive phrases which denoted an agent/instrument and a result. Examples of test items are:

- (8) The doctor → the little boy recovered
(The doctor healed the little boy.)
(9) The sun → he almost went blind
(The sun almost blinded him.)

Here again verbs of all four causative classes could be used.

Test 3 was devoted to understanding as a receptive skill. It demanded the marking of several English translations of German sentences, following the multiple choice method. Examples of test items are:

- (10) *An dem Wagen platzte ein Reifen.*
1. On the car a tyre was burst.
2. The car burst a tyre.
3. On the car one of the tyres was burst.
(11) *Früher pflegten die Ärzte die Leute zur Ader zu lassen, wenn sie krank waren.*
1. Formerly doctors used to bleed people when they were ill.
2. Formerly doctors used to draw blood from people when they were ill.
3. Formerly doctors used to make people draw blood when they were ill.

The two examples show that more than one answer could be right; in fact there were items in which all three answers and others in which no answer were /was correct. The sentences to be recognized again contained all four classes of causative verbs.

Test 4, the last of this series, was again devoted to language understanding. It demanded differentiation between sentences whose translation into German contained the verb *lassen*. Examples of test items are:

- (12) The teacher asked John to repeat the sentence.
(13) The teacher made John repeat the sentence.
(14) The teacher got John to repeat the sentence.

The following results were found:

In *test 1*, both groups of candidates preferred analytical phrases to lexicalized causative verbs, and they distinctly preferred these two groups to ergatives and morphologically derived verbs. The numbers in *table 1* give the percentage of causative verbs actually used — irrespective of correctness — in relation to the possible and total number of correctly used verbs. The percentage score shows that examinees in both groups exploit possible analytical phrases more than lexicalized causatives, and these two groups more than ergatives and morphologically derived verbs.

This result is underlined by the following observation: Nearly all sentences

could be translated in various ways. E.g. *Er ließ weiße Mäuse frei, um die Pferde in Panik zu versetzen* could be translated into an analytical phrase (*make panic, cause to panic*), into an ergative (*panic*), or into a morphologically derived verb (*terrify, frighten*). If there was no alternative to an analytical phrase in a test item, the examinees always actually used it. If there was one alternative, this was hardly ever used. In item 17, for example, examinees used 87.50% English analytical phrases for *arbeiten lassen* and only 2.50% the possible ergative *to work somebody*, and this in both groups. If there were two alternatives, candidates again preferred the analytical construction, the other two possibilities having a share of between 10 and 30% of the translations.

This indicates that the choice of verbs in the translated sentences is not accidental, but the result of a general tendency to express the notion *cause* preferably in analytical and lexicalized forms, and then *longo intervallo* with ergatives and morphologically derived verbs.

The results of *test 2* confirm this. The fact that the significant caesura here is not between lexicalized causatives and ergatives, but between analytical phrases and the rest, does not contradict the general tendency. *Table 1* again shows the percentage score. For explanatory reasons, these results of *test 1* and *test 2* can be discussed from yet another angle.

Test 1 contained 6 items with analytical phrases (*dazu bringen etwas zu tun, freilassen, zum Lachen bringen, totmachen, spazierenführen, in Panik versetzen*) and 6 items with others (*vorsetzen, verärgern, bringen, blank putzen, heben, werfen*). This was done in order to mirror the fact that analytical phrases seem to be much more frequent in German usage than the rest. The result might, therefore, lead to the assumption that candidates chose so many analytical forms because more of them were offered. In *test 2*, however, where examinees had to construct sentences out of elicitations and where no causatives were given at all, they preferred analytical phrases even more distinctly. This can only be explained by assuming that for the German learner of English it is the analytical phrase which comes to mind first of all when there is a need to express the notion of *cause*, irrespective of how many and which expressions are given.

The higher percentage of lexicalized, ergative and morphologically derived verbs in *test 1* as compared to *test 2* looks like being a transfer effect from German into English, because the percentage is so much lower in *test 2* where no German words were given at all.

If constructions in *test 2* allowed several possibilities, usage of the four groups of causatives was in agreement with what was explained about the usage of analytical phrases in *test 1*.

The picture changes, however, when the percentage of *correctly* used verbs is regarded in relation to the possible total number of correct instances. *Table 2*

shows that in *test 1* the highest percentage of correct uses is located with ergatives, then with morphologically derived verbs, with lexicalized verbs, and with analytical phrases only in the last position. Findings in *test 2* are slightly different in that morphologically derived verbs now hold the first position, ergatives the second and analytical phrases the third and lexicalized verbs the last one.

The following explanation offers itself for this result: Morphologically derived, ergative and lexicalized verbs with the element *cause* are learnt and memorized by German learners as distinct lexical items, though in a relatively small number. This means that they are rarely used, but if they are used, they tend to be used correctly. The students' distinct preference for analytical phrases seems to betray a more creative attempt by German learners to cope with the notion *cause* in English, which depends on language acquisition and which is applied fairly frequently, but which has a high potential of errors. The difference between acquisition and learning, in this case, shows up in the reciprocity of frequency and correctness of use.

Test 3 demanded language recognition. From *table 3* it is obvious that the results of this test are in agreement with what has been found so far. However, the results are not as clear cut as in *tests 1* and *2*. Examinees recognized analytical phrases and lexicalized words best with hardly any difference; ergatives and morphologically derived verbs follow in one group with no difference at all. This result may have been distorted by the fact that for the multiple choice decision 9 analytical phrases and 8 ergatives, but only 4 lexicalized causatives and 1 morphologically derived verb were given. At least the missing difference between the latter two can be accounted for by the low numbers of items. So the result of *test 3* may not be really dependable. Still, it does not contradict the results of *tests 1* and *2*.

It seems likely that the general preference for analytical phrases is result of the fact that in many cases Germans prefer a phrase such as this, where the test items gave some other type of causative verbs. This is particularly clear with ergatives, that is with verbs which can be used transitively and intransitively and which as transitive verbs have causative meaning. The German language tends to use differently lexicalized forms for the two. The relation between intransitive and transitive *grow* (*wachsen, anbauen*), *run* (*laufen, leiten, verwalten*), *walk* (*spaziergehen, ausführen*), *work* (*arbeiten, zur Arbeit antreiben*) and numerous others all make use of separate lexical entries in the German lexicon.

As there is no statistical investigation available which tries to count verbs of causativity, broken down into the four groups, in the lexica of the two languages, it is not possible to distinguish whether the assumed transfer procedure from German language use into English was due to the items chosen or is a general fact. The agreement of results of *tests 1, 2* and *3* with

the initial hypothesis, however, suggests that they have a general (and not only an item dependent) validity. Obviously, our German learners of English did not realize that a causativity transformation from an intransitive to a transitive verb is possible in English in a very high number of cases and, actually, is the reason for the particular flexibility of its verb system. As they did not realize this, they tended to equate the German and the English *intransitive* form and when compelled to express the notion *cause*, that is the transitive form, went back to analytical constructions and neglected others.

Causativity, as a rule, is taught in German schools as a structural problem, particularly in connection with *let, make, have* as verbs denoting *zulassen* and *veranlassen* and structured with bare infinitives. In this context *let* and *make* are usually understood as a contrastive pair, the one denoting 'allow', the other 'cause'. The numbers of *table 4*, referring to the results of *test 4*, show that recognition of *let* and *make* is much better than recognition of *have* with causative meaning. Obviously, the similarity of English *let* and German *lassen* is responsible for this, an explanation which was confirmed by the students in subsequent discussion. Furthermore, for some students, *make* seems to acquire the role of a universal expression for *cause*, very likely influenced by German colloquial expressions like *aufmachen* for *öffnen*, *zumachen* for *schließen*, *wegmachen* for *do away with*, *saubermachen* for *clean* etc.

The main result, then, of *tests 1-4* is a general tendency of our German examinees to use analytic constructions for the transitive form of English verbs which function transitively and intransitively and which in their transitive version have a causative meaning. This tendency can be accounted for by a process of transfer from German and includes a process of overgeneralization. However, this transfer can have already influenced the way in which the English language was taught to our examinees at German schools, and so a transfer of training can be stated as well.

There is a chance to account for all this by a still broader regularity. Observations in other fields of language learning and language use suggest that analytical expressions can be looked upon as a communicative strategy employed in situations whenever it is difficult or too tiresome to find the lexeme proper. Such situations occur in first language acquisition and, consequently, analytical phrases are symptomatic for child language. They occur in foreign language learning as our tests show. They also occur in language performance under difficult circumstances and in sloppy everyday language. One of many other possible examples in German is the occurrence of *würde+verb* instead of the subjunctive. Such use of combinations seems more economical for the human mind than the search for the lexeme proper or the conjugated form proper. This, however, seems to be stored as the result of a deliberate learning process and, consequently, is used rarely but correctly.

5. Description of tests 5–9 and results

The second battery of tests was devised and given to candidates in order to possibly underpin these results with more specialized ones which should yield an insight into how our German learners of English handle verbs which are ergatives in both languages. The aim was to find out how these verbs, which contain the transitive/intransitive dichotomy in one lexeme, are represented in their interlanguage.

Test 5 was devoted to language production. It demanded translation of non-contextualized German sentences into English in which 8 verbs (*move, lift, heighten, drag, rotate, withdraw, shake, look*) were used transitively as well as intransitively. All of these verbs have a German equivalent which functions transitively and reflexively. Distractors (that is sentences to be translated, which did not count in the test) were inserted in order to hide from the examinees that they were expected to use each verb twice. Examples of test items are:

- (15) Er bewegte sich langsam, als ob sein Fuß ihm wehe tat.
- (16) Die vier Männer bewegten das schwere Klavier ohne Schwierigkeiten.
- (17) Die Spannung im Saal erhöhte sich von Stunde zu Stunde.
- (18) Ein Besuch im Pub vor dem Theater erhöht das Vergnügen.

Test 6 was again devoted to language production. 8 German ergative verbs (*fahren, segeln, rollen, wenden, kippen, parken, anhalten, bremsen*) were given, out of which examinees had to construct two sentences with each one according to their momentary intuition. The aim was to find out whether German speakers use the German verbs more frequently in their transitive or their intransitive function.

Test 7 was devoted to the same task with reference to the 8 English verbs which test 5 already had asked for.

Test 8 was devoted to language understanding. It demanded the recognition of correct and wrong sentences from a set of 4 which all contained the same ergative verb. Examples of test items are:

- (19) 1. The door locked and they were caught in the trap.
2. Somebody locked the door and they were caught in the trap.
3. The door was locking and they were caught in the trap.
4. The door was being locked and they were caught in the trap.
- (20) 1. We sailed the boat to Malta.
2. The ship has been sailing in the Mediterranean for many years.
3. Make the boat be sailing as quietly as possible.
4. The boat had been being sailed to the lonely island years ago.

The examples show that here, too, distractors are inserted in order to

camouflage the actual problem, that is the intransitive vs. the transitive use of one and the same verb. Examinees were made to believe that their knowledge of tenses and aspects was being tested, whereas the only aim was to find out whether they were able to recognize correctly the use of the transitive or the intransitive variants of ergative verbs.

Test 9 was again devoted to language understanding. It demanded matching of English and German verbs which are almost equivalent in terms of translation. There were English verbs without any German equivalent, English verbs with one German equivalent and English verbs with two German equivalents. Examples of test items are:

- (21) blame = beschimpfen
- (22) slide = 1. schieben, 2. gleiten

For the purposes of the test, only the last group was important. Apart from the item given, the following words were used: *swing/schwingen, schwenken; sink/sinken, versenken; spill/verschütten, überfließen; project/(vorwärts) werfen, (vorwärts) fliegen; spring/springen, sprengen; block/feststehen, festhalten; pour/ausschütten, ausfließen.*

The following results were found:

In *test 5* the transitive variant of 4 from 8 verbs asked for (*shake, lock, drag, withdraw*) was more often used correctly than the intransitive variant. *Table 5.1* gives the percentage score; as keeping the three groups apart would make a complicated picture, the results have been pooled and, thus, the table also gives the percentage score for the three groups collapsed into one.

The table shows that the correct use of transitive *shake, lock, drag, withdraw* is more frequent than that of the intransitive variant of the same verb. However, with *move* and *lift* there is only the minimal difference of 1.33% (for *move*) and 2.66% (for *lift*) in the reflexive use. This means for all practical purposes that these two verbs are handled equally well by examinees in both their variants. Furthermore, the result for *rotate* and *heighten* can be neglected, because they were obviously next to unknown to our students. So we find that from the seven verbs chosen five were used correctly more often in their transitive variants than in their reflexive variants and two almost equally.

Of course, examinees did not only use those verbs which had been envisaged as candidates for correct translation. *Table 5.2* gives the numbers of verbs used in addition to the eight originally envisaged, and shows that the transitive ones now outdistance the intransitive ones even more clearly than in *Table 5.1*. *Move* + other verbs is on one level in both variants. Only *heighten* + other verbs is odd, all other verb clusters are on the transitive side.

In *Table 5.1* the percentage score of correct translations is less than half

for all verbs except *move* and *shake*. This means that the availability of all verbs (except *move* and *shake*) must be considered low. This, of course, is different when the results for all verbs used by candidates are collapsed as in Table 5.2. Here the percentage score of correct translations is more than half for all verbs (that is more than half the total number of possible correct translations) and the availability of these verb clusters, taken together, can be considered high.

It was the task of *test 6* to construct two German sentences around one German ergative verb in order to find out how often the transitive or the intransitive variant of the verb would be used for the first or the second sentence. The reason behind this was the assumption that the first sentence is the one that comes to mind more quickly than the second one. This particular variant of the ergative verb would then be the one more readily available. The results in Table 6 (and for *test 7* in Table 7), however, show that candidates preferred the same variants of verbs in the first and the second position. This is so with all German verbs except *kippen* and *rollen* (in group 2). For the English verbs used in *test 7* the distribution is similar. *Shake, shut, lift, heighten, withdraw, drag* as transitive verbs are used more frequently in the first and second position, *move* and *rotate* as intransitive verbs.

As this is so, there was no use in keeping the results for the first and second sentences apart. So not only were the groups collapsed into one (as in *test 5*), but also the sentences 1 and 2.

Table 6 shows that 5 German verbs are more frequently (and correctly) used in their intransitive variants and 3 verbs in their transitive variants. A close look at the results shows that the predominance of intransitive variants is even heavier than the relation 5:3 suggests because of the following reasons:

The difference between the intransitive and the transitive variant of *kippen* is only 4.00% and can be neglected. The results for *parken* clearly stress that it is on the transitive side. However, the item proved to be poorly chosen because many sentences had to be understood as having a transitive verb with its object deleted (e.g. *Er parkt an der Ecke*). So in this case numbers must be admitted to be unreliable. The only real exception, then, is *wenden* as used more frequently in its transitive variant.

Test 7, which set the same task with reference to English verbs as *test 6*, led to opposite results. With the exception of *rotate, move, and withdraw* all verbs are used more frequently in their transitive variant. Because of its low percentage score, *withdraw* can be neglected. As this test used the same lexemes as *test 5*, the results of both are in harmony with each other. *Tests 5, 6, and 7*, then, show that our German learners of English prefer the transitive

variant of ergatives in the English language and the intransitive variant of ergatives in their own German language.

For the English verbs this is confirmed by *test 8*. Table 8 shows that 7 out of 8 verbs are more often correctly recognized in their transitive variant than in their intransitive variant. With *sail* the difference between the two variants is relatively small (9.33%) which means that for all practical purposes this verb is equally well recognized in its two variants.

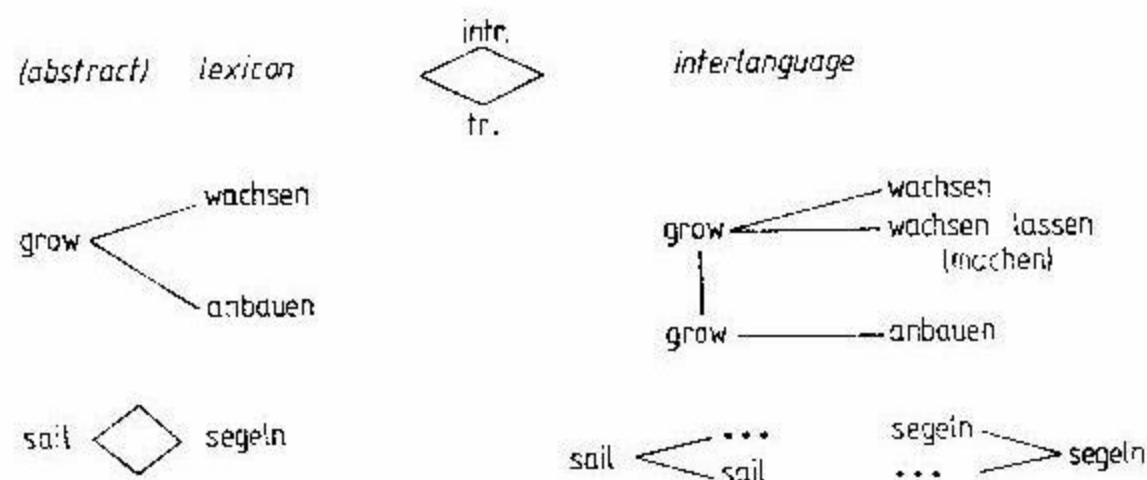
Test 9 re-introduces the first group of verbs into the testing process, because English ergative verbs had each to be matched with two different German lexemes. Table 9 shows that the matching is more successful on the intransitive side with 4 verbs (*swing, sink, slide, spring*) and more successful with the other 4 verbs (*pour, spill, block, project*) on the transitive side. Percentage scores for *block* and *project*, however, are so small that they can be neglected. With 4 entries in the intransitive column and 2 entries in the transitive column the results of *test 9* are in harmony with the first three tests, but in disharmony with tests 5--8.

A comparison between *test 6* and *test 9* can provide us with a hypothetical explanation. If the intransitive variant of an ergative verb is more readily available to a German speaker in his own language, as *test 6* showed, it is understandable that the intransitive variant of an English ergative is more successfully matched by him than the transitive. This applies to the tasks of tests 1--3 and *test 9*. Here, obviously, a process of interference takes place which is not bound to lexemes but to the possibilities of their functional usage.

6. Concluding remarks

The randomly chosen group of German learners obviously did not exploit one important possibility of the English verbal system, namely to use verbs intransitively as well as transitively without any change of surface structure. In the case where an English ergative verb is to be equated with two different German lexemes, obviously the link between the two intransitive forms is strongest. So *grow* is primarily used as *wachsen*, but not as *anbauen*. If the transitive form and its causative meaning is required, users of the interlanguage fall back on analytical phrases.

In the case where an English ergative is to be equated with a German ergative, obviously no straight link exists at all. Whereas the German intransitive variant is more prominent in the mind, the English transitive variant takes this same place. This result can be visualized thus:



An attempt to explain this interlanguage profile with the help of the interlanguage hypothesis proves difficult because it soon becomes visible that the terms offered here are too general vis-à-vis concrete data. Transfer of training can be drawn upon as a possible means of explanation. This would make an analysis of teaching material necessary. If it could be proved that the material used in German schools prefers the intransitive variant with the one group (English ergatives not equating German ergatives) and the transitive with the other (English ergatives equating German ergatives) we still would have to go on asking why the German teaching material is what it is. We might account for this by the differences in the verbal systems of the two languages, and thus give an answer in the area of transfer of language. Transfer of training and transfer of language, thus, prove to be interlinked.

Something very similar turns out to be the case with strategies of foreign language communication and strategies of foreign language learning. The results of the first tests showed a marked difference between the handling of foreign language items which are the results of learning and the more creative handling of other items which are the results of acquisition. The latter used the analytical paraphrase as a communicative strategy. Learning vs. acquisition are certainly to be looked upon as two possible strategies of dealing with a foreign language. Thus a specific communicative strategy in the foreign language is directly dependent upon a certain learning strategy.

Finally, overgeneralization as an independent means of shaping an interlanguage proves ill chosen, because there is an act of overgeneralizing in each of the before mentioned strategies. Obviously it is not enough to only enumerate strategies as the interlanguage hypothesis does. It is essential to find out what causes the one or the other strategy to be chosen and how they are interlinked with each other. *Acquisition* and *learning* seem to have a powerful hand in this, if they are not understood in the narrow dichotomy of the monitor-theory but as two powerful mechanisms which organize the whole system of coming to grips with a second language.

This can be proved in an explanation of the results of the second sets of

tests. Naturally, the availability of the intransitive variants of German ergatives in German minds is result of first language acquisition. However, the availability of the transitive variants of English ergatives in German minds can well be explained as result of learning. Non-causative (intransitive) verbs in a learning context and in isolated sentences, as they occur in such contexts, tend to appear pragmatically anomalous for the learner with reference to the instigator of the happening.¹⁵ For him, things don't just sail, drive, or shake without somebody or something causing them to do so. A learner will prefer giving an unmarked full sentence, that is the transitive verb with the agent, where the acquirer suffices himself with the shorter sentence without agent because he knows he can rely on the text. The learner prefers to store the full pattern where the acquirer does not bother. It is not clear whether this is a transfer of training, a learning strategy or a strategy of communication in the foreign language. Our investigation, then, ends with criticism of the two most powerful theories that try to explain foreign language acquisition/learning at the present moment, the interlanguage theory and the monitor theory. Though both of them grasp important phenomena of adopting a second language, they draw up far too simple models for explanation. As often, we find that things are more difficult and more intricate.¹⁶

Table 1: causative verbs used, in percentage scores relative to the possible total number of correctly used verbs

	<i>analytical</i>	<i>lexical</i>	<i>ergative</i>	<i>morphological</i>
Test 1:				
Group I.	89.37	63.92	17.86	11.88
Group II.	82.50	57.81	23.57	7.50
Test 2:				
Group I.	81.56	8.50	9.50	4.17
Group II.	81.25	12.50	13.00	0.83

Table 2: causative verbs used *correctly*, in percentage scores relative to the possible total number of correctly used verbs

	<i>analytical</i>	<i>lexical</i>	<i>ergative</i>	<i>morphological</i>
Test 1:				
Group I.	62.47	82.12	96.00	89.47
Group II.	61.62	85.41	96.97	83.33
Test 2:				
Group I.	76.63	52.94	94.74	100.00
Group II.	65.38	56.00	100.00	100.00

¹⁵ Kellerman (1982), and private communication.

¹⁶ I thank E. Junk for helping with the tests and calculating the tables, R. Grotjahn for good advice in statistical matters and R. Brunt for his comments on the English version of this paper.

Table 3: causative verbs recognized correctly, in percentage scores relative to the possible total number of correctly recognizable verbs

	<i>analytical</i>	<i>lexical</i>	<i>ergative</i>	<i>morphological</i>
Test 3:				
Group I.	67.22	63.75	45.00	45.00
Group II.	65.83	60.00	47.19	47.50

Table 4: translation of *let*, *have*, *make* into German, in percentage scores

	correct		incorrect	
	"lassen"	+	--	ø
<i>let</i>				
Group I.	55.00	30.00	15.00	—
Group II.	60.00	37.50	2.50	—
<i>have</i>				
Group I.	52.50	—	35.00	12.50
Group II.	50.00	5.00	22.50	22.50
<i>make</i>				
Group I.	65.00	12.50	20.00	2.50
Group II.	20.00	52.50	20.00	7.50

+ =correct paraphrase; -- =incorrect paraphrase; ø task not understood

Table 5.1: correct translations of transitive and reflexive variants of German verbs into English, in percentage scores relative to the total number of possible correct translations within each group of examinees.

	group 1 (tr./intr.)	group 2 (tr./intr.)	group 3 (tr./intr.)
move	93.75/100.00	100.00 / 94.72	100.00 / 100.00
shake	93.75 / 15.62	89.46 / 5.26	83.43 / 29.17
lift	40.63 / 43.75	42.10 / 57.88	37.50 / 29.17
lock	34.37 / 0.00	42.10 / 15.79	41.67 / 29.17
drag	0.00 / 0.00	42.10 / 0.00	12.50 / 0.00
withdraw	9.37 / 3.13	31.58 / 5.26	8.33 / 0.00
heighten	3.13 / 3.13	5.26 / 0.00	0.00 / 4.17
rotate	3.13 / 6.25	0.00 / 0.00	0.00 / 0.00

Groups collapsed into one, in percentage scores relative to the total number of possible correct translations (dominant variant bold-faced).

	trans.	intrans.
move	97.33	98.66
shake	89.33	17.33
lift	40.00	42.66
lock	38.66	13.33
drag	14.66	0.00
withdraw	14.66	2.66
heighten	1.33	2.66
rotate	1.33	2.66

Difference between transitive and reflexive variant:

move	1.33
lift	2.66
heighten	1.33
rotate	1.33

Table 5.2: correct translations of transitive and intransitive variants of German verbs into English, in percentage scores relative to the total number of possible correct translations within each group of examinees.

	group 1 (tr./intr.)	group 2 (tr./intr.)	group 3 (tr./intr.)
move+1	96.88 / 100.00	100.00 / 94.72	100.00 / 100.00
shake+0	93.75 / 15.62	89.46 / 5.26	83.34 / 29.17
lift+9	96.88 / 96.88	89.46 / 84.20	91.66 / 70.83
lock+2	100.00 / 84.37	94.72 / 78.94	95.83 / 70.83
drag+9	56.25 / 84.37	78.94 / 26.31	45.84 / 41.67
withdraw+6	59.38 / 46.88	57.88 / 63.16	33.33 / 20.83
heighten+6	43.75 / 78.13	57.88 / 63.16	25.00 / 66.66
rotate+6	90.63 / 84.37	89.46 / 84.20	75.00 / 66.66

Groups collapsed into one, in percentage scores relative to the total number of possible correct translations (dominant variant bold-faced).

	trans.	intr.
move+1	99.66	98.66
lock+2	97.33	78.66
lift+9	93.33	85.33
shake+0	89.33	17.33
rotate+6	85.33	78.66
heighten+6	41.33	70.66
drag+9	58.66	56.00
withdraw+6	50.66	42.66

Difference between transitive and intransitive variant:

heighten	29.33
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Table 6: first and second construction of German sentences around German ergative verbs, in percentage scores relative to the total number of possible constructions within each group of examinees.

		group 1 (tr./intr.)	group 2 (tr./intr.)	group 3 (tr./intr.)
wenden	1.	68.75 / 9.37	57.88 / 0.00	58.33 / 8.33
	2.	46.88 / 9.37	47.36 / 10.52	50.00 / 4.17
parken	1.	65.63 / 21.87	100.00 / 0.00	79.17 / 16.66
	2.	50.00 / 37.50	78.94 / 10.52	79.17 / 16.66

kippen	1.	59.38 / 34.37	42.10 / 47.36	41.67 / 54.17
	2.	50.00 / 40.63	47.36 / 42.10	37.50 / 45.84
anhalten	1.	31.25 / 62.50	31.58 / 57.88	29.17 / 54.17
	2.	37.50 / 53.13	21.05 / 47.36	25.00 / 45.84
fahren	1.	15.62 / 81.25	15.79 / 68.42	25.00 / 66.66
	2.	9.37 / 87.50	21.05 / 78.94	4.17 / 79.17
bremsen	1.	9.37 / 75.00	10.52 / 84.20	29.17 / 54.17
	2.	18.75 / 71.88	26.31 / 52.62	12.50 / 54.17
segeln	1.	3.13 / 93.75	0.00 / 89.46	0.00 / 91.66
	2.	6.25 / 87.50	0.00 / 89.46	0.00 / 95.83
rollen	1.	0.00 / 68.75	21.05 / 63.16	20.83 / 66.66
	2.	18.75 / 68.75	36.84 / 26.31	29.17 / 50.00

Groups collapsed into one and sentences 1 and 2 collapsed into one, in percentage scores relative to the total number of possible constructions (dominant variant bold-faced).

	trans.	intrans.
segeln	2.00	91.33
fahren	14.66	78.00
bremsen	17.33	66.00
rollen	19.33	59.33
anhalten	30.00	54.00
kippen	47.33	43.33
parken	72.66	19.33
wenden	55.33	7.33

Difference between transitive and intransitive variant:

wenden	48.00
parken	53.33
kippen	4.00

Table 7: first and second construction of English sentences around English ergative verbs, in percentage scores relative to the total number of possible constructions within each group of examinees.

		group 1 (tr./intr.)	group 2 (tr./intr.)	group 3 (tr./intr.)
shake	1.	100.00 / 0.00	89.46 / 0.00	95.83 / 0.00
	2.	90.63 / 3.13	78.94 / 10.52	75.00 / 16.66
lock	1.	90.63 / 3.13	89.46 / 0.00	87.50 / 0.00
	2.	78.13 / 9.37	68.42 / 0.00	70.83 / 0.00
lift	1.	68.75 / 15.62	84.20 / 5.26	83.34 / 4.17
	2.	56.25 / 15.62	84.20 / 0.00	83.34 / 0.00
heighten	1.	37.50 / 15.62	47.36 / 15.79	33.33 / 0.00
	2.	40.63 / 6.25	42.10 / 10.52	16.66 / 0.00
withdraw	1.	34.37 / 28.13	57.88 / 31.58	37.50 / 20.83
	2.	25.00 / 21.87	47.36 / 21.05	29.17 / 12.50
drag	1.	28.13 / 0.00	78.94 / 26.31	33.33 / 0.00
	2.	21.87 / 3.13	73.68 / 0.00	25.00 / 0.00

move	1.	15.62 / 81.25	36.84 / 63.16	25.00 / 75.00
	2.	21.87 / 71.88	42.10 / 52.62	37.50 / 54.17
rotate	1.	0.00 / 78.13	0.00 / 84.20	0.00 / 62.50
	2.	3.13 / 56.25	0.00 / 63.16	0.00 / 54.17

Groups collapsed into one and sentences 1 and 2 collapsed into one, in percentage scores relative to the total number of possible constructions (dominant variant bold-faced).

	trans.	intrans.
shake	89.33	4.66
lock	81.33	2.66
lift	74.66	8.00
drag	39.33	4.00
heighten	36.00	8.00
move	28.00	68.00
withdraw	10.66	22.66
rotate	0.66	66.00

Difference between transitive and intransitive variant:

rotate	65.34
move	40.00

Table 8: recognition of correct sentences, in percentage scores relative to the total number of possible correct sentences within each group of examinees.

	group 1 (tr./intr.)	group 2 (tr./intr.)	group 3 (tr./intr.)
steer	100.00 / 65.63	100.00 / 78.94	95.83 / 66.66
stick	100.00 / 93.75	94.72 / 100.00	87.50 / 87.50
rock	96.88 / 81.25	94.72 / 73.68	100.00 / 95.83
turn	96.88 / 78.13	89.46 / 94.72	95.83 / 70.83
lock	96.88 / 25.00	100.00 / 31.58	100.00 / 25.00
ride	90.63 / 100.00	94.72 / 89.46	100.00 / 100.00
sail	90.63 / 100.00	63.16 / 73.68	83.34 / 91.66
fly	84.37 / 84.37	94.72 / 78.94	100.00 / 75.00

Groups collapsed into one, in percentage scores relative to the total number of possible correct sentences (dominant variant bold-faced).

	trans.	intrans.
steer	98.66	69.33
ride	98.66	97.33
rock	97.33	84.00
turn	94.66	93.33
stick	94.66	80.00
fly	92.00	80.00
lock	88.00	26.66
sail	81.33	90.66

Difference between transitive and intransitive variant:

sail	9.33
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Table 9: correct equating German intransitive and transitive/causative verbs with English ergatives, in percentage scores relative to the total number of possible correct equations within each group of examinees.

	group 1 (tr./intr.)	group 2 (tr./intr.)	group 3 (tr./intr.)
project	12.50 / 0.00	15.79 / 0.00	4.17 / 0.00
spring	3.13 / 71.88	0.00 / 57.88	4.17 / 41.67
spill	28.13 / 6.25	47.36 / 10.52	25.00 / 8.33
pour	62.50 / 15.62	52.62 / 5.26	41.67 / 0.00
slide	6.25 / 75.00	0.00 / 47.36	4.17 / 54.17
block	18.75 / 21.87	26.31 / 10.52	8.33 / 0.00
swing	15.62 / 93.75	21.05 / 89.46	8.33 / 54.17
sink	12.50 / 90.63	21.05 / 87.94	20.83 / 62.50

Groups collapsed into one, in percentage scores relative to the total number of possible correct equations (dominant variant bold-faced).

	trans.	intrans.
swing	14.66	80.00
sink	17.33	78.66
slide	4.00	61.33
spring	2.66	58.66
pour	53.33	8.00
spill	32.00	8.00
block	17.33	12.00
project	10.66	0.00

Difference between transitive and intransitive variant:

pour	45.33
spill	24.00
block	5.33
project	16.66

REFERENCES

- Adjemian, C. 1976. "On the nature of interlanguage systems". *LL* 26. 297-320.
- Babcock, S. 1972. "Periphrastic causatives". *Foundations of Language* 8. 30-43.
- Bausch, K.-R. and Raabe, H. 1978. "Zur Frage der Relevanz von kontrastiver Analyse, Fehleranalyse und Interimsprachenanalyse für den Fremdsprachenunterricht". In Wierlacher, A. (ed.). 1978. 56-75.
- Bausch, K.-R. and Kasper, G. 1980. "Zweitsprachenerwerb: Möglichkeiten und Grenzen der 'großen Hypothesen'". *Linguistische Berichte* 64. 3-35.
- Burt, M. K. and Dulay, H. C. 1980. "On acquisition orders". In Felix, S. (ed.). 1980. 265-327.
- Clark, H. H. and Clark, E. V. 1977. *Psychology and language*. New York: Harcourt Brace Jovanovich, Inc.

- Corder, S. P. 1973. *Introducing applied linguistics*. Harmondsworth: Penguin.
- Faerch, K. and Kasper, G. 1980. "Processes and strategies in foreign language learning and communication". *ISB* 5. 47-118.
- Felix, S. (ed.). 1980. *Second language development. Trends and issues*. Tübingen: Gunter Narr Verlag.
- Felix, S. 1982. *Psycholinguistische Aspekte des Zweitsprachenerwerbs*. Tübingen: Gunter Narr Verlag.
- Fillmore, C.J. 1971. "Some problems for case grammar". In O'Brien, R. J. (ed.). 1971. 35-56.
- Fodor, J. A. 1970. "Three reasons for not deriving 'kill' from 'cause to die'". *Linguistic Inquiry* 1. 429-38.
- Hatch, E. (ed.). 1978. *Second language acquisition. A book of readings*. Rowley, Mass.: Newbury House.
- Hüllen, W. and Jung, L. 1979. *Sprachstruktur und Sprachverwerb*. Düsseldorf/Bern: Bagel/Franke.
- Hüllen, W. 1982. "Verbs of causativity in the English interlanguage of German learners". In Lohnes, W. F. and Hopkins, E. A. (eds). 1982. 170-79.
- Kastovsky, D. 1973. "Causatives". *Foundations of Language* 10. 87-110.
- Kellerman, E. 1982. "Predicting transferability from semantic space: an investigation of translation preferences for a polysemous word". *SAP* 14. 192-219.
- Kellerman, E. Ms. "Now you see it, now you don't".
- Knapp-Potthoff, A. and Knapp, K. 1982. *Fremdsprachenlernen und -lehren*. Stuttgart: Kohlhammer.
- Krashen, S. D. 1982. *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Krumm, H.-J. 1978. "Sprachvermittlung und Sprachlehrforschung Deutsch als Fremdsprache". In Wierlacher, A. (ed.). 1978. 87-110.
- Lakoff, G. and Ross, J. R. 1972. "A note on anaphoric islands and causatives". *Linguistic Inquiry* 3. 121-25.
- Lenneberg, E. H. 1967. *Biological foundations of language*. New York: Wiley.
- Lipka, L. 1982. "Causatives and inchoatives in English and their treatment in recent lexicographic practice". *SAP* 14. 1-16.
- Lohnes, W. F. and Hopkins, E. A. (eds). 1982. *The contrastive grammar of English and German*. Ann Arbor, Mich.: Karoma Publishers.
- Lyons, J. 1968. *Introduction to theoretical linguistics*. Cambridge: CUP.
- Lyons, J. 1977. *Semantics I and 2*. Cambridge: CUP.
- McCawley, J. D. 1971. "Prelexical syntax". In O'Brien, R. J. (ed.). 1971. 19-33.
- O'Brien, R. J. (ed.). 1971. *Linguistics: Development of the sixties - Viewpoints from the seventies*. 22 Annual Round Table. Washington, D. C.: Georgetown University Press.
- Oller, J. W. and Richards, J. C. (eds). 1973. *Focus on the learner: Pragmatic perspectives for the language teacher*. Rowley, Mass.: Newbury House.
- Raven, R. 1968. "Language acquisition in a second language environment". *IRAL* 6. 175-85.
- Schumann, J. H. and Stenson, N. (eds). 1974. *New frontiers in second language learning*. Rowley, Mass.: Newbury House.
- Selinker, L. 1974. "Interlanguage". In Schumann, J. H. and Stenson, N. (eds.) 1974. 114-36.
- Stevick, E. 1982. *Teaching and learning languages*. Cambridge: CUP.

- Tarone, E., Frauenfelder, M. and Selinker, L. 1976. "Systematicity/variability and stability/instability in interlanguage systems". *LL special issue 4*. 93—134.
- Wierlacher, A. (ed.). 1978. *Jahrbuch Deutsch als Fremdsprache. Vol. 4*. Heidelberg: Julius Groos Verlag.
- Wode, H. 1981. *Learning a second language. I. An integrated view of acquisition*. Tübingen: Gunter Narr Verlag.