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The promotion of explicit and implicit learning strategies in English instruction: a necessary aim?

Claudia Finkbeiner (Kassel)

0. Introduction

The main area of this paper is concerned with the importance of learning strategies and learning techniques within the whole area of foreign language instruction whereas the particular focus in this study will analyse the problem of how to foster both explicit *and* implicit learning strategies when reading English texts. This will also involve describing the changes in the demands for teaching and learning. By taking examples from the results of research on the good language learner, certain aspects of the important groundwork for current research into learning strategies and learning techniques will be shown; in addition, definite conclusions can be drawn from the results of this research in the context of the importance of a *flow* concept as a vital component within the general concept of strategies. Based on previous results, the conclusions drawn will open up new questions for further research.

Within the whole field of research into learning and teaching methodologies, there has been, on the whole, a noticeable increase in research within the framework of learning strategies. Two diametrically opposed approaches have been followed in this area of foreign language teaching and research. Whereas, on the one hand, the attempt has been made to train for an explicit implementation of strategies (*cf.* Nold & Schnaitmann, 1997), the opposite path has also been taken by taking measures to elicit and promote the more implicit, "natural" learning strategies. (Bleyhl 1996a, 1996b).Within the whole area of discussion about strategies, the current state of the debate is expressed in terms of the following dichotomies *i.e.* explicit/implicit, conscious/subconscious and observable/non-observable. Although these dichotomies are perceived to be incompatible by many authors, Bialystok has managed to reconcile them and bring them together in her *model of interacting knowledge sources*. Following the presentation of this model, conclusions relevant for research will be drawn. In the latter part of the paper, there will be a report on our own empirical investigations which were carried out as part of a research project on the interaction between strategies and interests in the field of reading English texts. The changes in the demands on learners and

teachers together with changes in perspectives caused by these new demands provided both the starting point for and reasoning behind posing particular questions as part of the research project. In addition, the results relevant to this part of the study have been selected to gain more concrete insights into these aspects of explicitness as against implicitness with regard to knowledge strategies for learners. In the final part, conclusions will be drawn.

1. The changes in the demands made on teachers and learners

Completely different demands caused by technological, social, cultural and economic changes in society as well as by the short-term value of knowledge and skills in an ever-changing world are nowadays being made on teachers and learners. This situation continues to make increasing demands for a very high degree of flexibility and for highly sophisticated thinking skills (*cf.* Nenniger, 1995). In addition, it has not only led to "a growing scientific interest in gaining more insight into self-directed, intentional learning" (Konrad & Wosnitza, 1993: 1) but it has also, at the same time, aimed at equipping the pupils with the full range of skills to enable them to act as autonomous learners both during their schooling and beyond so that self-motivated learning becomes a life-long process (*cf.* Finkbeiner 1995a). This aim is also firmly based on an epistemological change which Wolff (1996) claims is strongly influenced by the new insights gained from cognition psychology, cognitive science, radical constructivism, biology as well as from neurophysiology. Resulting from the new shift of emphasis in the educational debate, Wolff (1996: 2) has come to the following conclusions:

- *Understanding and learning are seen as active processes of construction involving the incoming perceptual stimuli and the learner's current state of knowledge.*
- *Learning is an autonomous process carried out mainly by the learner himself or herself in an independent way.*
- *Learning is a process organised by the learner acting on his or her own initiative but with the result that autonomous responsibility and organisation emerge from the inherent logic and sense within a specific item pertaining to the learning process.*
- *Learning is an exploratory process planned by the learner acting within a paradigm based on hypothesis formation and testing.*
- *Learning is a process controlled by the learner who makes use of strategies.*
- *Learning is a process which works particularly well in groups.*
  Learning is a process which benefits very greatly from a varied and authentic learning environment.
- *The outcome of any particular learning process varies from learner to learner, because knowledge is always subjective and takes different forms for each particular learner.* (Wolff 1996: 2)

This view of learning requires a form of education that has the following characteristics: open, democratic, liberating, based on pair and group work and relevant to the real world. This type of education has many associations with the ideas supported by proponents of modern methods and which nowadays are being re-examined in the light of the new approaches based, for example, on active learning methods (c. f. Bach & Timm 1996; Finkbeiner 1995a, 1996a 1996b; Gudjons 1989) or based on communicative, interactive and experience based approaches (c. f. Legutke & Thomas: 1993; van Lier: 1996).

2. Learning strategies as a research topic: the "good language learner"

The question as to what is the best way to learn how to think and how to learn and how to teach these skills has always been an existential problem for people interested in knowledge and education. Learning strategies and techniques had been used in an implicit form thousands of years ago. The story-tellers of old, for example, availed themselves of a kind of

precursor to mnemonic devices as did the mediaeval minstrels in order to be able to recall their songs word for word and produce the details of their stories and songs in the most exact way possible. It was not until the early 70's in this century that learning strategies and techniques began to be treated in a concrete and explicit way. It was Flavell (Flavell *et al*. 1966) who first suggested that "strategies" should become an object of scientific research whereas, in psycholinguistics, Bevers was the first to introduce the actual concept of learning strategies. Van Dijk and Kintsch (1983) further elaborated this concept by integrating "strategies" into all the levels of their text processing model and by linking them to the active learning approach.

In the fields of language acquisition and foreign language research, the studies of Naiman et al; (1978), Rubin (1981) and Wenden & Rubin (1987) on the good language learner opened up new directions in the 70's. In these studies, the main focus was on the importance of methods to enhance learning processes as well as on implementing learning strategies in the context of institutionalised education. The research at that time, just as with present day research based on these lines, takes the point of view that one of the important factors enabling effective learning is the use of certain specific information processing strategies. Stern (1990) has summarised the previous findings from research on the good language learner: in his view, the good learner does not introduce learning strategies in a more or less haphazard fashion, but instead consciously plans their implementation. This approach can be described as "conscious" or "explicit". It is, however, quite possible that these two adjectives do not do justice to the complexity involved in setting tasks and problems connected with language learning. Although, on the one hand, it can be assumed that "the good learner" is actively involved in planning and proceeds in a deliberate way, it can also be easily imagined that the learner working at a very high level of linguistic competence also acts in an implicit and, to a high degree, subconscious way. This particularly applies to activities connected with the *flow* experience.

The experiencing of flow in the learning process is part of the interest component relating to emotion. According to Csikszentmihalyi & Schiefele (1993), flow is of crucial importance for bringing about intrinsic learning motivation and for the cognitive development of the "pupils". Flow can be defined as a holistic feeling of total absorption in an activity which is experienced as a homogeneous "flow" from one moment to the next. (ebbed:. 209). Regarding flow as a component for investigation in the context of a discussion about strategies is now very relevant because it can be assumed that any one in this "flow" state reaches their highest level of achievement.

A further possibility to be envisaged in this process is that there could well be learners who succeed by implementing strategies in a basically subconscious and implicit fashion because this accords with the learner type they happen to be and with their learning style. Alongside this input of strategies which, more or less, range from conscious down to subconscious and haphazard, the good learner in a vaguely conscious fashion also makes use of social and affective strategies, which help him or her to deal effectively with emotional and motivational problems. They play a decisive part in the processing of knowledge, particularly with regard to discovering creative solutions, but also with regard to converting their current state of knowledge in order to attain new knowledge. It is reasonable to assume that one expert working on his or her own for one hundred hours would not achieve the same creative result as a hundred experts from a variety of disciplines working together for one hour. In the first place, a group can produce a different kind of motivation which "carries" the individual whilst, at the same time, acting as a stimulus; secondly, separate fields of knowledge can be linked in new ways and can be integrated into a newly created and considerably extended area

of knowledge. In the USA, the input of social and motivational strategies is quite usual at crisis management meetings, for example.

3. Discussion of strategies

A problem pertaining both to research methodology and to education in general has arisen from a lack of coherence in the usage in the literature for concepts such as "learning strategy" "learning techniques" "learner strategy" "learning style" "communication strategy" etc. This is still the case a quarter of a century after the concept of "strategies" was introduced as a theme for research in the 70's, and this lack of consistency still applies to the discussion in both educational psychology as well as in linguistic and foreign language research. Some authors do differentiate in their usage of these concepts whereas others use them indiscriminately, and a third group subsumes one concept under another, thus creating a conceptual hierarchical framework.

Despite this diversity not only in the nuances but also in the usage of this concept, it can be seen in the field of learning strategy research within educational psychology (*cf.* Schnaitmann 1995, 1996a, 1996b) that all the more recent research papers assume a common interpretation for these terms with regard to the field of language learning. The recurrent concept underlying the various definitions conceives learning as an autonomous, deliberate, motivational and self-responsible process for the individual. From this multi-faceted process, a sophisticated model of competent learning has become accepted and acts as a starting point for both current and future research and analysis.

This disparity of usage in educational psychology research material regarding concepts and definition of terms such as learning strategies, learner strategies and learning techniques in the publications on foreign language instruction in the English-speaking world was established by Naimann et al.(1978) and Bialystok (1983: 100) in the 1970's and in the 1980's. This tendency still applies today in an analogous way to this literature in both the English-speaking and German-speaking worlds. Ellis goes so far as to make the following assertion on this point :"The concept of strategy is a somewhat fuzzy one, and ... not easy to tie down" (Ellis 1995: 529). The same point is confirmed by Zimmermann: In the literature on the lexical field of "strategy", there are numerous examples showing considerable discrepancies in the usage of this item. Diverse fields of semantic features have been ascribed to these concepts (Zimmermann 1997: 95). According to Klein (1997: 3) this state of affairs has been counterproductive:[1]

> *However, this terminological controversy is not very productive because it is obvious that the two types of strategies merge at their boundaries. In addition, it distracts from the real problem, which is to define the actual language-using situations which cause the learner to put these strategies into action and just at this point there is a considerable gap in the research.*

This implies that research in this area, more than ever before, would have to be carried out with greater specific reference to the field of discourse and to the relevant context. Basically, in almost all the attempts at definition, it can be shown that, on the one hand, the difference between techniques and strategies does not always seem to be absolutely clear nor is there enough differentiation between learning strategies, learner strategies and communication strategies and on the other hand, many authors choose to base their descriptions of strategies and techniques on terminology that is defined in terms of opposing poles such as "conscious/unconscious" (*i.e.* deliberate and planned as opposed to haphazard and

uncontrolled), "observable/not observable", and "explicit/implicit". In the next section, most of the attention will be focused on the first and last of these three categories.

4. The conscious/subconscious dimension

Tönshoff (1995) regards the three elements of taking a problem-solving stance, having clear aims/intentionality and (potential) awareness of strategies as the most important criteria for learner strategies. These criteria are also compatible with the study of Rampillon (1995) who describes the process involved in guided learning and learning monitoring. Oxford (1995: 1 f.) similarly stresses consciousness as an important criterion for strategies: "the strategy concept has been applied to ... situations, where it has come to mean a plan, step, or conscious action towards achievement of an objective" (Oxford 1995: 8). However, the polarisation of consciousness versus the subconscious is not mentioned as a kind of criterion for strategies by all the authors. Wendt, for example, avoids the creating a dichotomy of conscious versus subconscious processes for describing his strategy concept and shows how the various stages of consciousness develop step by step from strategies into routines:

> *Although the application does not always take place at the conscious level, subconsciously selected strategies can be raised to consciousness by introspection ... brought to consciousness by subsequent queries or ... by being controlled. They are constantly being consciously set up before they can be made automatic to become routines.* (Wendt 1997: 77)

Similarly, in his description of strategic processing behaviour in mother-tongue speakers, Wolff assumes that a completely automated process is taking place in an analogous way to Wendt's notion of routine. However, the fact that processing strategies can be varied in cases of failure is an indication for the following:

> *They are stored at a relatively high level of consciousness. The competent language processor is able to analyse his processing problem and can thus select a different, more appropriate strategy from his stock of strategies.* (Wolff 1997: 273)

Nold & Schnaitmann (1997) who stick very close to Lompscher in their concept of strategy also interpret the consciousness criterion in an analogous way:

> *After this, learning strategies are conceived as sequences of actions which can be conscious particularly in the early stages when they first arise in the learner. Afterwards, they can then be put into action either in semi- or subconscious way and thus become automated.* (Nold & Schaitmann 1997: 136)

It can be seen from these analyses that it is very difficult to invoke consciousness as a criterion for the characterisation of learning strategies because consciousness is not a homogeneous state but, as has already been demonstrated by the quotations, is rather characterised by a multiplicity of stages of consciousness which can extend as far as the transition to unconsciousness (*cf*. Butzkamm 1989: 97)

> *Physiologists describe various levels of wakefulness ranging from deep sleep and loss of consciousness to the highest level of excitement ... Thus consciousness comes in various forms and levels.* (Butzkamm 1989: 97)

Butzkamm concludes from this that we need to revise our ideas and more than ever before, set our stakes "on the card of subconscious reason" (*ib*. 99). This statement is backed up by statements from brain research in neurobiology:

> *We perform our highest and most complex actions without being conscious of them. The real challenge for cognitive neurobiology is to understand more fully these processes of pre-consciousness and subconsciousness so that we can then understand the real motivating factors in our actions. This applies particularly to the limbic system as the main judgement system in our brains. Cognitive achievements are bound in the closest way possible to emotions which, in turn, form a bridge to whatever exists at the completely subconscious level in us. This completely subconscious area is by no means, the same as the in-born area or with reflex actions and drives, but is, instead, the huge amount of pre-experience knowledge which has been filtered down from the current state of awareness but which, however, or in fact, for this very reason, affects and shapes the controlling factors of our thoughts and actions.* (Roth 1997: 9 f.)

We still understand very little of these processes. They have, however, such a degree of influence on our actions and human reactions that one of the greatest challenges in the whole field of scientific work can be regarded to be the attempt to discover and to explain these processes.

5. The explicit/implicit dimension

In his introduction to Implicit and Explicit Learning of Languages Nick C. Ellis describes implicit and explicit learning in the following terms:

> *Implicit learning is acquisition of knowledge about the underlying structure of a complex stimulus environment by a process which takes place naturally, simply and without conscious operations. Explicit learning is a more conscious operation where the individual makes and tests hypotheses in a search for structure. Knowledge attainment can thus take place implicitly (a nonconscious and automatic abstraction of the structural nature of the material arrived at from experience of instances), explicitly through selective learning (the learner searching for information and building then testing hypotheses), or, because we can communicate using language, explicitly via given rules (assimilation of a rule following explicit instruction).* (Ellis 1994b: 1 f.)

In the definition, implicit learning is conceived as a natural, simple and conscious learning process whereas explicit learning is described as a process which includes conscious operations such as the making and testing of hypotheses.

O'Malley & Chamot (1994) distinguish between the concepts of learning and learner strategies. These depend more on natural rather than institutionalised settings for their implementation and the degree of explicitness has also to be taken into consideration:

> *We use the term learner strategies to identify strategies that students have developed on their own to solve language learning problems ...We contrast this term with learning strategies, which we use to describe the strategies that have been ... taught explicitly as part of instruction in both first and second language contexts.* (O'Malley & Chamot 1994: 371)

This also very much applies to the work of Krashen (1994, 1996) who used the explicit/implicit criteria for his distinction between language learning and language acquisition. Whilst he defines "learning" in his *Acquisition Learning Hypothesis* in terms of "conscious" and "explicit", he characterises "acquisition" mainly in terms of "unconscious" and "implicit":

> *The Acquisition-Learning Hypothesis claims that we have two independent means of developing ability in another language: Language acquisition is a subconscious process that results in linguistic knowledge that is subconsciously stored in the brain (tacit knowledge). Language learning is a conscious process that results in "knowing about" language. Language acquisition is "incidental" (as contrasted with intentional) and "implicit" (as contrasted with explicit learning), while language learning is intentional and explicit.* (Krashen 1994: 45)

As a defender of a strong *non-interface position*, Krashen maintains that a) the subconscious acquisition process is the most important element in L2 and b) that learning can never become acquisition and c) that conscious learning can only be used as a "monitor" in the sense of a checking instrument which corrects "output". This "Input Hypothesis"[2] is based on the assumption that L2 acquisition works better, the more "comprehensible input" is provided.

(Felix, 1982, 1987) believes that the language acquisition mechanism typical for L1 acquisition corresponding to Krashen's concept of "acquisition" works even for adult foreign language learners; at the same time, he does, however, pay due regard to Piaget's description of the stages in child development. According to this scheme, people attain their highest level in their cognitive development after puberty. At this stage formal operations can be performed, *i.e.* abstract thought and problem solving processes can take place. This partially explains the difference between language learning in adults and in children.

In this context, Felix points out how adults do, to a certain extent, proceed differently from children when learning foreign languages, which he explains with his hypothesis of "competing cognitive systems". At the same time, however, Felix casts doubt on the value of instruction stages which concentrate only on teaching explicit knowledge of rules.

Even Butzkamm concedes that the natural acquisition mechanisms are not automatically switched off as soon as the learner enters the classroom. According to Butzkamm (1989: 92) the thesis based on evolutionary theory that there are acquisition principles which apply to all possible acquisition contexts including language instruction has been confirmed by empirical data: "L 2 acquisition both in and out of school demands conversion and renovation, but not a new building" (*ib*.). According to Faerch, Haarstrup and Phillipson (1984) and Faerch (1986), the search for explicit versus implicit to differentiate within language knowledge stores is not appropriate. They not only assume that this field is a continuum but also that certain stores of knowledge can be represented both implicitly and explicitly.

6. The model of interacting knowledge sources

Even for Bialystok (1994) there is not an irreconcilable contradiction between explicit and implicit knowledge. In her opinion, there is not only a connection between the two stores of knowledge, but that there is above and beyond this, an interaction:

> *If we consider instead that language is represented in both of these ways, then both of the competing views become partially correct. A resolution to each debate requires*

> *determining the role both types of knowledge play and the nature of their interaction.* (Bialystok 1994: 551)

This also explains the difference between implicit and explicit knowledge with regard to the different representations of knowledge.These are also responsible for the functional differences in the application of knowledge and in access to the knowledge base. The centre of her model is formed from the representation of language which contains all the universal principles which underlie a language. Up to this point, this "Language Center" is comparable to Chomsky's *Universal Grammar*. In addition, there is an area of storage for the representation of semantic knowledge about the world. Meaning arises from language being connected to knowledge of the world. Her "model of interacting knowledge sources" only becomes complete with the L.S.D. *i.e*. Language - Specific - Details. The L.S.D.'s are available for any specific language or, in other words, depending on the number of languages a person speaks, he or she will have to access to at least one and possible numerous L.S.D. stores. Each Language-Specific-Store is provided with a lexicon, with grammatical surface features each as word order and pragmatic rules. Bialystok presupposes that although these stores are separate from one another for each language, it can also be assumed that there are close connections amongst them.

In addition, Bialystok sees the world-knowledge store as being connected with each of the L.S.D. stores. In the total picture, the world-knowledge store, however, forms its own independent store within her model. She bases this on the fact that with the acquisition of the mother-tongue, human beings have already thereby developed definite, conceptual ideas of things and that these things only need a new verbal label. She provides an example of this by showing that we have certain ideas about the concept of politeness and that different languages give linguistic expression to this concept by using different labels.[3]

Conceptual world knowledge is, however, strongly influenced by cultural factors and dependent on the context. Bialystok implies this in her own references to the differences of spatial concepts in Korean and North American children, but she does not, however, draw any conclusions from this situation for the presentation of her model. A solution to this could be seen in a changed representation of the world-knowledge store. Based on the model of a universal language store, this fundamental store would, in my opinion, have to be supplemented by culturally specific, world-knowledge detail stores: following the model of Language-Specific-Details stores, these could be defined as "Cultural-Specific-Details-Knowledge-of-the-World stores. This would be necessary particularly with regard to the didactic implications connected with this model. L2 acquisition is not merely a case of labelling what already exists: it is more a case of labelling and re-structuring what already exists to become something new (*cf*. Butzkamm 1989).

Disregarding the representation of the world-knowledge and language knowledge stores in the model, the fundamental question arises as to how this knowledge developed. According to Bialystok, the representations of world and world knowledge are developed by two underlying processes:

> *analysis of knowledge and control of processing are fundamental to the development of language proficiency .... Analysis is the process by which linguistic and conceptual representations become more explicit, more structured, and more accessible to inspection. Analysis proceeds on implicit unstructured representations and converts them to an increasingly explicit form ... On this view, explicit knowledge of language differs from implicit knowledge of language in several respects. Explicit knowledge is*

> *either derived from implicit knowledge (through analysis) or learned directly as discrete and propositional; explicit knowledge is organised around formal categories and related to other concepts through formal conceptual connections; explicit knowledge can be uniquely accessed.* (Bialystok 1994: 560 f.)

It is of fundamental importance to Bialystok that explicit knowledge does not make any use of interpretations and implications. Although explicit knowledge can, to a very high degree, become automatic and internalised as routine, in her opinion, it can never become implicit knowledge (*cf*. Bialystok 1994: 567). Within this context, she makes the point that although, in automated processes, access is easier and action, smoother, the representations of this knowledge are always explicit. In her opinion, explicit knowledge differs from implicit knowledge by its clarity and definability. For example, human beings have explicit knowledge about concepts such as objects. It is only on account of this knowledge that human beings can name things and can correctly understand the function of objects in a sentence whilst reading. Human beings are, however, seldom really aware of this explicit knowledge about objects. According to Bialystok explicit knowledge has both an endogenous and an exogenous cause. Knowledge is being constantly structured and ordered by the cognitive processes of analysis, and thus becomes more explicit and more accessible: "The main beneficiary of this endogenous move towards explicit representation is the language representation" (Bialystok 1994: 566).

The exogenous factor is determined by instruction and observation: "Words, structures, nuances, conventions, can be learned and stored directly as articulated knowledge to be accessed when needed. The main beneficiary of this move towards explicit representation is the L.S.D. representation" (*ib*.). This highly idealised view of the instruction process would have to be defined a construction process on account of Wolff's learning principles outlined at the beginning. This view of learning as a construction also offers possible explanations for the following phenomenon often encountered in the day-to-day classroom situation of foreign language teachers: knowledge acquired by instruction does not always seem to be stored directly and is not always easily accessible at a moment's notice. Words, concepts and conventions cannot just be observed and copied, they must be acquired for oneself in order to possess them, (or in other words, you must first acquire them before you can possess them.

7. Fundamental research questions

The various standpoints represented in the arguments in the previous section with regard to acquisition, the learning and representation of knowledge lead, in an analogical fashion, to two diametrically opposed stances in the research on learning and teaching: whereas, in one camp, the attempt is made to train students in learning strategies and techniques in an explicit way (c.f. Nold & Schnaitmann 1997), in the other camp, the opposite path is taken by advocating that the more implicit or "natural" learning strategies should be elicited and encouraged with appropriate methods (Bleyhl, 1996a, 1996b). These two diverse approaches do, however, share the same goal, which is, in fact, to find possible answers to the questions for current and future research which are regarded by Ellis to be of fundamental importance:

> *What are the processes and resultant mental representations of implicit and explicit learning? Which of human cognitive capabilities are acquired implicitly and which are learned explicitly?* (Nick C. Ellis 1994b: 2)

According to Ellis, the second question is highly relevant for both theoretical and practical reasons. This is because intervention in the field of teaching and learning are not particularly

relevant for implicitly learned skills whereas they are much more important for explicitly learned skills. Although these questions are provoking heated discussion particularly with regard to L1 acquisition but also with regard to foreign language and L2 acquisition, research is still a long way from providing anything like a satisfactory answer to these questions. In the final analysis, this answer would tell us which is, in fact, the "best" method to learn a language. It must, however, also be taken into consideration that the answer to this question has to allow for individual learning styles, learner types and to the personality make-up of each individual learner.

In this context, it is necessary to undertake an analysis of the current curricula and syllabuses as well as pedagogical material and teacher training to find out which kind of learning is being encouraged.4 It must also be taken into account that the tradition of institutionalised foreign language learning with its emphasis on the most economical and efficient way to become competent in a language tends to favour explicit learning at the expense of implicit methods.

In the next part, a research project will be described which is closely linked with the present discussion and which has implemented the questions outlined so far in this paper. In the analysis concerning the interplay of strategies and interests with regard to the reading of texts in English, one of the main points under discussion was to see whether a) implicit knowledge with regard to strategies used in the process of understanding the text itself can be made explicit by applying research methods to the readers in question (in this case, girl and boy pupils in their ninth and tenth year, *i.e*. aged between 15 and 16, at either grammar schools or middle ability schools, i.e. 'Realschulen', in the state of Baden-Württenberg) or b) whether there can be seen to be a predominance of explicit learning as opposed to implicit processes or if the reverse is the case and c) how far the predominance of one method over the other is dependent on the choice of text i.e. the contents, the set exercises as well as the interests and the level of emotional involvement of the learners.

The results of Covington's Berkeley Study (1997: 35) show, for example, that explicit knowledge of strategies does not automatically lead to their application and implementation: cognitive and emotional strategies can obviously interact in such a way that the learner's self-image can be threatened by using strategies to promote learning when the learner has no experience of success; in such a case, failure can be ascribed to the weak skill or to a low level of competence:

> *We can also appreciate why some researchers have found little or no correspondence between academic performance and the possession of good study skills ... Students do not always prepare adequately, even though they may know how, because effort is potentially threatening to their selfs of worth. Clearly, knowing how best to study is a highly important ingredient for success in college, but this knowledge can only benefit students fully if the prevailing achievement context is non-threatening.* (Covington 1997: 35)

It is of particular importance to ascertain whether the results of the Berkeley study apply to the population investigated here in Germany or only to the relevant context under investigation. The results of the Covington study confirm the affective logic hypothesis that cognitive functions are never completely free from affection and that our affections are never completely free from cognitive content (*cf*. Ciompi 1993: 81). In addition, there is also a link to the results of neurophysiological research on reading: according to Miall (1995: 275) the feelings dominated by the right hemisphere of the brain determine to a large extent reading

skills and comprehension. They also play a vital role in the initiation and control of interpretative activities connected with the reading process.

Points d) and e) are of interest with regard to the verification or, if need be, falsification of the casual connections outlined above, d) whether metacognitive awareness with regard to the subjects' own approach varies in reading i.e. whether it shows characteristics of different intensities depending on whether it is a question of declarative, procedural or situational knowledge (*cf*. Garner 1990) and e) whether the knowledge of learners with regard to their own strategies implemented in the reading process varies according to whichever strategy is employed: the last question would seem to assume that, for example, the strategy employed in translating can more easily be made metacognitively conscious and explicit than, for example, elaboration strategies which make personal connections.

At this point, it basically needs to be asked whether processing activities in foreign language reading such as the implementation of strategies (*e.g*. creating the elaborations) can, in any way be, understood empirically. This question can be answered with a qualified "yes". Constructs of this kind can be inferred diagnostically (*cf*. Tergan 1988) the diagnosis referring to the individual knowledge structure of the subject can, for example, be based on observation and introspection during the knowledge acquisition process (procedural) or by interview concerning the approach with regard to the subjects' own knowledge process (declarative) (Faerch/Kapper 1987): the result is both descriptive and interpretative. Care must be taken lest elaborations, for example, should ever be allowed to be "registered" directly. All that can ever be imagined, is only "talking" about elaborations (*cf.* Huber/Mandl 1982b: 18). Added to this, there is, however, the problem that talking about elaboration cannot provide an absolutely "objective" behavioural description; it will always remain "subjective" (*cf. ib.* 16). Moreover, it can also happen that subjects cannot really give any information about the behavioural strategies they actually use, but instead, only provide information based on their general knowledge and their assumptions in this direction. Meanwhile, several results particularly with regard to the research on metacognition and subjective theories have indicated that the subjective assumptions about behavioural processes (strategy input) as a form of metacognitive knowledge exert a strong influence on future behaviour and also on the emotional aspects of cognitive orientation as well as on the self-concept, and thus being of great relevance to the construction of knowledge (*cf*. Brown 1994; Scheck/Groeben 1988). These assumptions with regard to the subjects' own reading procedures act as naïve hypotheses in influencing future learning behaviour and make certain learning acts predictable (Lilli/Frey 1993).

Another challenge for research projects working in the field of learning strategies and techniques lies in the fact that it is possible that many learners have no declarative knowledge whatsoever concerning their input of strategies and so can be described as "metacognitive illiterates". This result is based on comments made by students on their "self-concept as learner" at a seminar on learning strategies and techniques at university. Nevertheless, many learners seem to apply these strategies implicitly even though they may do this intuitively and without conscious knowledge. Whereas learners with metacognitive awareness seem to be more in a position to give information about these implicit strategies the learners with more implicit approaches are not aware of these processes. If this assumption does prove to be confirmed in this research project, then the appropriate educational conclusions will have to be drawn under the maxim of having to take into account both the variety and variability of learners in the classroom situation.

8. Research on the interaction between strategies and interests

The research on the interaction between strategies and interests with regard to the English language texts includes an exploratory preliminary study, a main study comprising two stages as well as an intercultural comparative study. This section is concerned with the main study, but will focus on some of the results from the first phase which have been specially selected as a typical example and which will be compared with those of the second phase.

Research on the interaction between strategies and interests

9. Summary

According to Cohn, human beings are both a psycho-biological unit and a part of the universe. They are at the same time autonomous and interdependent (Cohn 1984). The results from this study show, however, that there are still many learners both at secondary school and at university who have neither learnt to think about their reading behaviour nor how to evaluate and change their reading processes and futhermore, nor how to aim at and achieve goals in a more purposeful way. Most of the subjects in the investigation claimed that they had not been required to think about their reading methods. This is certainly not intended to be primarily a criticism of teachers, but is seen more as logical consequence from the use of school texts, guidelines, homework assignments and exams within a hidden curriculum. The pupils may spend a lot of time on thinking, but very little on conscious thought about their own thinking.

The following tendencies were observable:

- Despite the above limitation, this research paper has shown that it is possible to make pupils implicit knowledge about their reading strategies become explicit by using appropriate research procedures.
- According to the subjects' statements, explicit rather than implicit approaches seem to predominate in the school as institution. This is particularly the case both in preparatory and consolidation steps such as help with the vocabulary and textual analysis. Reading as a process in itself is never or hardly ever dealt with as a theme. This is presumably because it is a difficult process to observe and to check. Teachers probably assume that the reading process in pupils of year groups 9 and 10 is to be regarded as finished and done with or at least, no longer open to any further influence.
- The results of our research show that there is no clear predominance of implicit approaches as opposed to explicit one nor is the reverse the case. One approach as opposed to another seems to be directly connected to the type of learner involved. Thus there are some learners who implement strategies in a very conscious manner (consciously translate the text, structure the text by writing symbols in the margin etc.) and there are others who approach reading in a more subconscious way. The school structures with their concomitant time, conformity and achievement pressures do not seem to promote the implementation and development of the more implicit strategies. At the same time, however, explicit reading strategies are not really dealt with at all. This assertion is supported by the statements made by students in a seminar on the theme of "learning strategies".
- In addition, it emerged that despite the fact that the type of text used plays a certain role with regard to this question, it would be better to neglect this question rather and focus on the question of content and the type of exercise on the text and its general effect on the pupils interests as well as the emotional involvement the learner. It is evident that learners generally choose certain approaches to reading in a subconscious way depending on the context and the specific relevant conditions. The selected strategies are thus seen to be as dynamic constructs which vary during the reading process, are at the same time constantly being implemented and even abandoned or re-adopted, depending on the relevant motivational and emotional situation of the reader.
- Miall's thesis (1995: 275) which claims that feelings controlled by the right hemisphere to a very great extent determine reading ability and comprehension seems to be particularly relevant for the formation of personal elaborations.
- The data from the questionnaires in comparison with the data from the interviews show that metacognitive consciousness with regard to the learners' own approach to reading does, in fact, vary,

depending on the circumstances such as whether declarative, procedural or situational knowledge is involved.

- The knowledge the learners have with regard to their reading strategies seems to vary depending on the particular strategy used by the learner. Strategies involving processing procedures low down in the hierarchy of skills such as literal translation or copying out words seem to be more "potentially conscious" than, for example, elaboration strategies leading to personal connections.

The results suggest that both implicit and explicit learner strategies for reading in school should be promoted in accordance to the variety of learner types. This can be brought about by organising appropriate educational situations such as :

- setting up reading interest groups using the widest possible range of subjects and tasks
- discovery and recruiting of "experts" in the classes
- class conversations in which mental thought processes and emotional involvement in reading will be dealt with.
- creation of reading situations which promote implicit reading strategies and make "flow" experiences possible for example by offering free reading sessions.
- by promoting the pupils interest in doing their own activities by setting interesting tasks e.g. altering a short story themselves working in a group so that one group may alter the time, place, characters, the adjectives, verbs, nouns, mood, register and style or on the other hand, another group may rewrite the story as a poem as rap, as a song or as a dialogue or even present the story as a pantomime and make use of graphics or film.
- Changing the quality of reading assessment and test

For this to take place, appropriate measures must be implemented in teacher training as well as in in-service training. Teachers will first have to learn how to think about their own learning and thinking processes and see the relevance of their own education from childhood onwards.

In addition, it is absolutely essential that teachers are given the possibility of developing diagnostic skills and of familiarising themselves with appropriate pools of information from the whole area of diagnostic education. In this way, at least some of the learner problems observed in this study can be solved. If future teachers learn during their own education and training to be in command of their own learning processes and to be able to organise them, then the probability will be all the greater that, in the long term in their professional life, they will be able to motivate their pupils to do the same. In this context, it is interesting to note the words of Saint-Exupery: "If you want to build a ship, don't simply marshal the men (and women) together to fetch the wood, make the tools, to set tasks and to divide up the work, but instead to teach them to yearn for the vast, endless ocean." Desire, motivation and interest whether it be to build a ship, solve a problem, read and understand a text are factors alongside learning strategies which play such an important role in the learning process that they should at least be considered as equally important for learning.

Notes

1 Here, he is referring to the distinction made in many publications between "learning strategies" and "language using strategies".

2 "The Input Hypothesis claims that we acquire language by understanding messages, that "comprehensible input" is the essential environmental ingredient in language acquisition. More precisely, if it is assumed that acquirers acquire the aspects of language in a predictable order, if an acquirer is currently at stage "i", it is hypothesised that s/he can acquire "i+1" if s/he understands input containing i+1" (Krashen 1994: 46).

3 However, research results in the field of intercultural studies have shown that precisely this view concerning knowledge of the world can, in fact lead to misunderstandings. Intercultural comparisons demonstrate that cultural differences are not merely linguistic in nature but are also conceptually different. A concept such as politeness has completely different connotations in different cultures. This seems to have demonstrated by the example showing the differences between polychrone and monochrone societies (*cf*. Hall/Hall-Reed 1989: 13 ff.): polychrone societies have a completely different idea of time and planning than monochrone societies. In monochrone societies, time is seen as linear: people believe that you only really do one thing at once. In polychrone societies, however, people often do several things at the same time. It is generally assumed, for example, that Germany and the USA are examples of monochrone states whereas France and Spain are examples of polychrone societies. In monochrone societies, if an appointment is agreed upon but not kept, then this will be interpreted as a breach of good manners if the appointment has not been kept because the person going to the appointment had been held back by being involved in a conversation with a third party. In polychrone societies, however, it would be an offence against politeness to break off abruptly the former delaying conversation merely to keep the appointment. The delay with regard to the appointment is, by no means, seen as impoliteness or disregard of the third party, but is, instead, explained by the basic courtesy and respect for all the parties concerned (ib.).

4 With regard to the investigation described in the next section, this analysis was concerned with reading comprehension based on a text.

The promotion of explicit and implicit learning strategies in English instruction

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