ON THE ROLE OF CONVENTIONS IN UNDERSTANDING LITERARY TEXTS

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On the basis of the empirical science of literature and new results of text processing research five hypotheses are developed. They concern the role of the polyvalence convention while understanding literary texts. The results of the pilot study indicate the existence of polyvalent discourse processes, but they also point to the necessity of further research to look for the influence of different literary texts on cognition.

1. Introduction

In what follows we report the results of a pilot study concerning problems of understanding literary texts. The research work was carried out at the University of Siegen from 1984 to 1985 by the two authors, assisted by Henrike Alfes. In our project special attention was paid to explicitly displaying the connection between the presupposed theories and models and the hypotheses derived from them; the selection of methods, and the collection and interpretation of the data.

The theoretical basis presupposed in our research project consists of two domains:

- a theory (or, to put it more modestly: a model) of understanding (Meutsch 1986a, Schmidt 1985, Viehoff and Schmidt 1985), and

A special task of the latter theory was to provide us with the key concept of our project: the concept of polyvalence. Our project aimed at three goals: to attain a better explanation of the understanding of literature texts, to find an empirical confirmation of the existence and the effects of the polyvalence convention as predicted by the empirical theory of literature and to prepare a complex and new research project (Schmidt 1985).

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2. Towards a model of understanding

2.1

Recent research in reading and comprehension has revealed some interesting points of convergence. Psycholinguistic as well as cognitive psychological models of understanding assume that text understanding can be described in terms of text processing which is theoretically modelled as an interaction of two domains of information: those gathered from the text (= bottom-up-operations) and those derived from the cognitive domain (= top-down-operations; cf. Mandler and Johnson 1980, Rumelhart 1980, van Dijk and Kintsch 1983, Just and Carpenter 1980). Text processing is regarded as a process which has to be characterized by means of dynamic categories. In addition to relations between text and cognitive domain (in terms of memory, knowledge, strategies, etc.), recent research tries to take into account social and contextual conditions of text processing, the role of acting knowledge, the influence of non-verbal elements, and the like (e.g. Mandl and Schnottz 1985, Mandl, Stein and Trabasso 1984).

Text processing is regarded as a sequential, cyclical, hierarchically ordered, strategy-guided and context-bound process aiming at a coherent organisation of text data and knowledge structures. The strategies operating on this process are usually labeled as micro-, macro-, and superstrategies (cf. van Dijk and Kintsch 1983). The knowledge invested in text processing relates to four dimensions: text, world, story structures, and structures of story telling.

After the so-called 'cognitive turn' in psychology more and more evidence has been supplied for the hypothesis that text processing is an active and constructive process in the cognitive domain of understanding subjects. (For a review see Groeben 1982a, Schmidt 1985, Meutsch 1986a, Ballstaedt, Mandl, Schnottz and Tergan 1981, Mandl and Schnottz 1985, Rickheit and Strohner 1985, v. Dijk 1985, Flammer and Kintsch 1982.)

2.2

In our view the seemingly evident and consensual assumption that understanding equals operations of information-processing is problematic. The concept of information underlying this idea has been simply adopted from information theory, taking for granted that information is something that can be exchanged, transmitted, etc. In contrast, biologists and psychologists like Maturana (1982), Johnson-Laird (1983), or von Glasersfeld (1986) hold the view that information is constructed inside the cognitive domain of subjects. In verbal interactions (communication) it cannot simply be exchanged but must be construed analogously in the respective cognitive domains of the interlocutors. As a result of these (empirically backed) ideas, we prefer to

The same type of argumentation concerns the intuitively plausible idea of an interaction between text and receiver in understanding processes, where the text is regarded as active a factor as the recipient. Not only neurobiologists but also psychologists have opposed this idea with important arguments.  

2.3

We cannot go into the details of constructivist theories of language, meaning, and communication. 2 The most important argument we accept from these theories reads as follows. Due to the operational closedness of our nervous system, all instances of 'reality', 'sense', 'information', 'value', etc. are bound to activities in the cognitive domain of subjects (whose social acting conditions are equally respected as the biological ones). Accordingly, texts as meaningful instances cannot be described apart from their being construed as meaningful instances in the cognitive domain of subjects; i.e. as meaningful instances they do not exist outside these cognitive domains.

In a constructivist approach understanding is hence theoretically modelled as a relation between a material (graphematic or acoustic) text-basis (= TEXT) and the cognitive domain of a socialized subject in an actual social and situational acting context. The result of performing this relation is what we call a KOMMUNIKAT, 3 i.e. an internal mental representation of a TEXT.

2.4

On the basis of these general hypotheses, 'understanding' can be conceived of theoretically as a process of Kommunikat-construction. Making use of the results of hitherto existing comprehension research, 4 this process can be characterized by the following features which we regard as being essential:

(a) The process of Kommunikat-construction (abbreviated as PKC) is integrated into encompassing practical activities of the actor (Anderson 1985).

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1 Cf. Kintsch (1978: 66): 'For the psychologist, text bases, and hence meaning, are not real-world objects but simply the outcome of certain psychological processes. When we read a text, the only thing outside the reader's mind are some letter shapes on a page: the words that are communicated by these visual objects, the phrases and sentences in which these words are organized, and their meaning, are the result of complex hierarchical psychological processes taking place in the reader's mind. In particular the meaning of the text that the reader constructs from the actual physical stimulus, the situational context, and his world knowledge, is not something that resides in the text, but a response on the part of the reader to the text'. See also McCormick-Leightly (1985).

2 For further details see Schmidt (1983).

3 We make use of the German words in order to avoid equivocations with common English terms.

4 See the report on the state of research in Hoppe-Graff (1984).
(b) PKC can be theoretically modelled as a holistic process which hierarchically organizes and integrates component processes (cf. van Dijk and Kintsch 1983, Meyer 1984, Schnott 1985) that differ with regard to their states of consciousness and awareness (van Dijk and Kintsch 1983, Viehoff and Meutsch 1985). The process as a whole can analytically be divided into three interrelated domains: a rational domain of intentional informational self-orientation and self-reflection of the subject; an emotional domain, and a domain of evaluative checks of the practical relevance of PKC (and its results) for the subject (cf. Spiro 1982, Dörner 1983, Hörmann 1983, Klix 1980, Kluwe 1979). 5

(c) PKC can be described as an intersection of knowledge acquired and developed in processes of socialization and actual activities (cf. Leont'ev 1979, Neisser 1976, Dörner 1976, Mandl and Schnott 1985, Tergan 1984). Here we have to take into account that knowledge is always institutionally determined (cf. Verdaasdonk 1982).

(d) PKC is regarded as a process which is governed by cognitive schemata. Following Anochin (1976), Galanter, Miller and Pribram (1960) and Hacker (1978, 1980), we assume that anticipatory cognitive schemata (see Hacker's 'operative systems of representation', 1978, and von Cranach, Kalbermatten, Indermühle and Gugler 1980) bring about the program of an action (Stadler, Schwab and Wehner 1979) and achieve its perceptual feedback.

(e) According to Hörmann's postulate of 'sense constancy' (1976), PKC is intentionally structured by the cognizing subject and basically oriented towards coherence. This postulate is also relevant to literary reception (cf. Schmidt 1984). Specific aesthetical knowledge and values constrain the types and degrees of coherence which are realized (cf. Viehoff 1976, 1981, Harker 1981). Here we have to make differences between micro-structural types of coherence (as can be found in processing metaphors, see Bates and McWhinney 1979), super-structural preferences (cf. van Dijk 1979, van Dijk and Kintsch 1983), or individual or idiosyncratic reading strategies (cf. Meutsch 1986a; Meutsch and Viehoff 1985).

(f) PKC depends on biological conditions as well as on those cognitive acting conditions which the subject acquires through his/her process of socialization (Viehoff 1982).

(g) PKC is governed by concept-dependent comprehension strategies. Different strategies have been investigated in recent research. Vipond and Hunt (1984) distinguish between point-driven, story-driven, and information-driven readings, thereby illustrating differences between reading strategies in relation to socio-functional constraints acting on individual readers. Van Dijk and

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5 Perhaps the rational domain is bound to the structure of information construction whereas the emotional and relevance domains provide the dynamics of PKC, while all three are subject to the overriding principle of all living systems, i.e. the maintaining of its autopoiesis.
Kintsch (1983) claim the efficiency of propositional, local coherence, macro- and schematic strategies, thereby emphasizing text-oriented understanding without regarding social influences (see also Meyer 1984, Meyer and Rice 1982).

(h) Special features of text organisation and text presentation trigger special reading strategies which can be elaborated according to goals and contexts. In this process cognitive schemata can be produced or modified (cf. Meutsch 1984, 1986a, Graesser et al. 1979, Graesser 1981).


(j) PKC is determined by expected functions of the reading process (i.e. by exigencies, expectations, and conditions of understanding).

(k) PKC is governed by conventions. We distinguish between general conventions (of the Gricean and Searlean type), and special conventions peculiar to special discourses. The polyvalence convention is supposed to belong to the set of these special conventions in our society (Schmidt 1982).

(l) PKC is a constructive, subject-dependent process. Intersubjectivity in PKCs of different subjects is completely bound to computable processes of socialization and culturalisation as well as to a mutual acceptance of conventions by interacting subjects (cf. Kintsch and Greene 1978) and to a comparable interpretation of the respective communication situation.

3. Some essentials of the presupposed theory of literature

3.1

In numerous publications over a decade S.J. Schmidt and his NIKOL-research group have put forward a lot of arguments why literary scholars should transform their research domain and proceed from the analysis of literary texts to the description, explanation, and modification of literary systems.

As has been explicitly developed in Schmidt (1982) and Hauptmeier and Schmidt (1985), the smallest units under investigation in literary studies should not be isolated (and implicitly ontologized) literary texts, but such text-actor-context-syndromes in which phenomena are focussed which the actors deem literary. These actions are called literary actions and subsumed under four basic acting roles, i.e. the production, mediation or distribution, reception, and post-processing of literary texts. Concatenations of literary
actions are called literary processes. Nettings of literary processes constitute what is called a literary system.

From a macrosociological point of view literary systems are regarded as component systems of a society, which in turn is theoretically modelled as a system consisting of component systems. As a component system of society, a literary system is in constant exchange and interaction with other component systems of a society like politics, economy, education, religion, etc. According to system-theoretical approaches in sociology, social systems normally have to be characterized with regard to their structure, their function, and their inside-outside-differentiation.

For the purposes of this paper we can restrict ourselves to the last point. We suppose that the demarcation line between the literary system and all other component systems of modern societies is drawn by two conventions which govern the ways literary phenomena are produced, mediated, received, and post-processed in modern literary systems.

3.2

It should be emphasized that the two conventions which specify literary actions and literary processes work on (or dominate) two other conventions which, on the opposite, are effective in all other component systems of modern societies except literary systems.

We shall now try to give a short survey of these conventions.

(a) aesthetic convention. It is common knowledge in our society that all actors in literary systems must be willing and able:
- to extend their action potential (or the action potential of other participants in the literary system) beyond the usual criteria of true/false or useful/useless, and to orient themselves towards expectations, norms, and criteria which are deemed aesthetically relevant in the respective literary system,
- to designate communicative actions intended as literary by appropriate signals during production, and to follow such signals during reception,
- to select as a frame of reference for expressions in literary texts not just the socially established world model he/she is accustomed to in his/her respective social group but virtually all constructible frames of reference, and
- to de-emphasize the fact convention. 6

(b) polyvalence convention. It is common knowledge among all actors in literary systems in our society that:

6 Fact convention. It is common knowledge in our society that communicative objects, especially texts, should permit reference to the world model accepted in that society, such that people can decide if the assertions conveyed by the text are true and what their practical relevance is.
text producers are not bound by the monovalence convention,\footnote{Monovalence convention. It is common knowledge in our society that: (a) text producers are expected to shape their texts in such a way that different people at different times can assign them a constant Kommunikat, and (b) text receivers are expected to strive for the assignment of a single Kommunikat to the texts.}

- text receivers have the freedom to produce different Kommunikate from the same Text in different times and situations (weak version of the polyvalence convention hypothesis) or in the same reading process (strong version of the polyvalence convention hypothesis\footnote{For the difference between weak and strong versions of the polyvalence hypothesis see Groeben (1982b).}), and they expect others to do likewise,

- text receivers rate the realization of different cognitive, emotive, and moral reading results on different levels of reception as optimal corresponding to their needs, abilities, intentions, and motivations, though the reasons for such rating may differ among participants and situations, and

- text-mediators and text-processors should not counteract these regulations overtly.

The relation between the two conventions might be described as follows: the aesthetic convention seems to be logically prior to the polyvalence convention. By suspending the true–false and useful–useless frames it enables an orientation towards poetic norms, expectations, and criteria; it fosters the multi-readability of literary texts, and enables a subjective optimizing of the process of Kommunikat-construction: it thus comprises the polyvalence convention.

The polyvalence convention influences the relation between processes of Kommunikat-construction and the value-system of the reading subject; and above all it influences the subject’s evaluation of the pluri-referentiality of text-elements and texts (i.e. its poly-readability). Whereas polysemy normally enhances the uncertainty of reading processes and is, accordingly, negatively connotated, poly-readability on the basis of the polyvalence convention enlarges the set of reading possibilities and is normally positively connotated.

4. On the development of operational types of cognition in literary understanding

4.1

From the literary-theoretical assumptions outlined in section 3 we derive the following general hypotheses: due to the aesthetic convention, problems in the process of constructing a Kommunikat assigned to a literary text are generally
not regarded as deficiencies but are taken as triggers for additional ‘understanding’ efforts. ⁹

(Such reading problems are at least partially provoked by text features which – in the reader’s implicit or explicit framework of poetical values and expectations – are deemed literary relevant. However, this point is not topical in our present project.)

As has been pointed out in section 2, linguists and psychologists convergently assume that understanding processes are governed by strategies. We hold the view that the polyvalence convention may be regarded as a special strategy which is relevant in the literary system seen as a component system of society. Accordingly, everybody who is interested in the analysis of understanding processes can hope to obtain further insight into the ‘nature’ of understanding through an analysis of special kinds of understanding processes, viz. literary understanding: if our strategy-oriented approach of explaining text understanding is successful, and if we have to take into account different types of strategies, then the ‘literary case’ will be helpful in characterizing the strategy-type of mediating between the individual and the social domain as the global sense criterium.

4.2

The hypothetical assumptions connected with the general formulation of the polyvalence convention can be specified as follows:

(a) Polyvalent processes of Kommunikat-construction (PKC) are triggered by reading problems which – according to the aesthetic convention – are positively evaluated.
(b) Polyvalent PKCs can be regarded as a cognitive enlargement of PKC-construction; the enlargement especially concerns the set of frames of reference put to work during the process of Kommunikat-construction.
(c) Polyvalent PKCs imply (presumably meta-cognitive) personal commentaries on reading problems and the construction of enlarged PKCs.

In our empirical work we have tried to examine the three parts of this hypothesis one after the other, not in a multi-variate procedure.

4.3

From our presupposed theoretical assumption (as presented in sections 2 and 3) and the assumptions connected with them in sections 4.1 and 4.2 we derive the following hypotheses: our model of understanding works with four different types of cognition which can be used as operational categories for deriving special hypotheses, i.e.:

⁹ See the empirical evidence in Hintzenberg et al. (1980), and Schmidt and Zobel (1980).
(1) all descriptions of (details of) the PKC, i.e. the unreflected application of conventions (abbreviated as KA),
(2) all commentaries on the PKC, i.e. the consciously reflected application of convention (entailing problems of PKC) (abbr. KOM),
(3) all descriptions of relevant conventions (eventually) independent of PKC (abbr. KB ST), and
(4) all descriptions of back- and forth-operations which are related in terms of propositions (abbr. VOR and RUE).

These four domains can now be specified as follows:

(1) Descriptions of PKCs
KA PR PO: Positive propositional instantiations of a thematic slot or check of thema correspondence.
KA PR NE: Negative propositional instantiations of a thematic slot or check of thema correspondence.
KA UR PO: Positive (non-specific) evaluation of the propositional slot instantiations resp. thema correspondence.
KA UR NE: Negative (non-specific) evaluation of the propositional slot instantiation resp. thema correspondence.
KA RE: Referring to frames of reference as application of a convention.
KA RE WE: Changing of frames of reference as application of a convention.

(2) Comments on PKCs
KOM TE PO: Positive text-concerning comments on PKC.
KOM TE NE: Negative text-concerning comments on PKC.
KOM RE PO: Positive reference-frame concerning comments on PKC.
KOM RE NE: Negative reference-frame concerning comments on PKC.
KOM PE PO: Positive reader-concerning comments on PKC.
KOM PE NE: Negative reader-concerning comments on PKC.

(3) The stock of relevant and applicable conventions
LB: The notion of 'literary'/literature' specified as to its content.
PRA: Reading preferences in terms of text types, genres, subjects.
FUN: Assumptions concerning possible functions of (reading) literature.
ERW: Expectations in authors and books.
LESG: Reading habits.

The variable names and abbreviations were, of course, taken from German words in our research context.
GESPR: Modes of talking about literary works and readings.
LIT SOZ: Degree of literary socialization.

(4) Back- and forth-operations
VOR: Expectations concerning forth-coming text elements.
RUE: Recorrection of (partial) text readings.\(^{11}\)

5. The hypotheses

In this section we give a detailed report on those hypotheses derived from the presupposed theoretical framework which we shall put to empirical tests. The criteria for empirical testability are related to the status of concretisation of the object theory (cf. sections 2 and 3) and to the operational types of cognition (see section 4). The first hypothesis has already been formulated in the presupposed empirical theory of literature (Schmidt 1980,1982), it is well-supported by results of research in literary reading strategies. Carbonell (1981) assumes that readers interpret understanding problems as author-specific metaphors which can be understood by 'metaphor-processing'.

\(^{11}\) We quote examples from the transcribed tape recordings of our test subjects to give the reader an impression of the instantiation of the variables:

**Examples**

KA PR PO: ‘Genau wie die Blätter, die von den Bäumen fallen – zwar nicht in den Papierkorb kommen, aber in den Abfallkorb.’

NE: ‘Also daraus kann ich nicht – das kann ich nur so verstehen, daß gemeint ist, daß das, was normalerweise auf der Erde stattfindet, nicht ernstzunehmen ist, aber – das könnte man ja durchaus so sehen.’

KA UR PO: ‘Der Satz gefällt mir von den Worten, von den Begriffen her eigentlich sehr gut.’

NE: ‘Also das hört sich auf einmal sehr brutal an.’

KA RE: ‘Ja, da fällt mir schon die Sprache auf (–) das erinnert mich so an, an technische Abläufe – Haushaltsführung.’


KOM TE PO: ‘Aber das ist wahrscheinlich nur bildlich zu verstehen.’

NE: ‘Arbeitstisch – so ein Wort, wo ich auch wieder ein bißchen drüber stolpere in diesem Zusammenhang.’

KOM RE PO: ‘Das würde ich aber auf die Natur beziehen.’

NE: ‘Vielleicht – aber ich verstehe es eben nicht zu dem, was zuletzt war.’

KOM PE PO: ‘Das heißt, es fällt mir doch was dazu ein.’


VOR: ‘Ja, ich hoffe in der nächsten Zeile auf Beantwortung dieser Frage.’

H1: Reading texts they deem literary, readers usually have understanding problems.

We operationalize H1 by all the negative dependent variables, i.e. by KA PR NE, KA UR NE, KOM TE NE, KOM RE NE, and KOM PE NE.

The second hypothesis follows from the presupposed empirical theory of literature and from the theory (or model) of understanding as outlined in section 2.

H2: The performance of polyvalent processes of Kommunikat-construction is realized as a change of frames of reference.  

Compared to the 'demetaphorization-strategy' (which can be regarded as the propositional equivalent of understanding problems) the 'strategy of changing frames of reference' characterizes the level of schemata (Harker 1981). We assume that metaphor-processing triggers the superordinated strategy of frames of reference (cf. Vipond and Hunt 1986), but this is not the subject of our present project.

H2 is operationalized by KA RE WE.

The third hypothesis, too, has been derived from the presupposed empirical theory of literature: it is based on the assumption that processes of literary understanding realize different possible meanings on macrostructural levels (van Dijk 1980, Meutsch 1986a, Vipond and Hunt 1984).

H3: A change of frames of reference during a process of Kommunikat-construction which is regarded as an instance of acting according to the polyvalence convention, is evaluated positively.

We operationalized H3 in terms of (all positive) correlations between KA RE WE and positive KOMs as well as in terms of the comparison of positive correlations with negative KOMs.

H4 was derived from the presupposed empirical theory of literature and the theory of understanding, which in turn is backed by the results of story grammar research (as concerns the notion of coherence) as well as by the research in the correlation between thematic (textual) deep structure, coherence, and understanding (cf. Schmidt and Zobel 1980):

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12 In our pilot study we could not check the differences between readings of literary and non-literary texts. But Meutsch (1986a) has provided evidence for the hypothesis that there actually exist differences: text subjects try to overcome understanding problems by means of producing elaborations. (See also Thorndyke 1977, who observed a change of schemata when confronted by understanding problems.)

13 We have adopted the strong version of the polyvalence convention: see (b) in section 3.2.
H4: Non-narrative literary texts (as e.g. poems) trigger more polyvalent processes of Kommunikat-construction than narrative literary texts (as e.g. short stories).

In a more implicit way H4 hints at the relation between different kinds of strategies in literary understanding.

H4 can be checked by location comparison of different texts with regard to KA RE WE-activities. Secondly, a comparison between a narrative and a non-narrative text with regard to the sum of all variables attributed to H1 (i.e. KA PR NE, KA UR NE, KOM TE NE, KOM RE NE, and KOM PE NE) must favour the non-narrative text. Thirdly, a positive correlation between the sum of all POS KOM’s and KA RE NE’s must rank higher for non-narrative than for narrative texts. The second and third check will only be possible when the narrativity of texts can be clearly defined.

The fifth hypothesis is a derivative of the empirical theory of literature:

H5: The aesthetic convention and the polyvalence convention are interdependent. The aesthetic convention comprises the polyvalence convention. Therefore readers who have accepted the aesthetic convention are supposed to follow the polyvalence convention as well.

H5 is descriptively operationalized by the KB-categories.

6. The empirical test of our hypotheses

6.1

In order to test our hypotheses we made use of a two-factorial design (with text and method as factors). We chose two texts: J. Becker’s poem *Nah und fern* (which we intuitively regarded as a non-narrative item), and L. Gustafsson’s short story *Ende des Herbstes* (which we intuitively deemed narrative) (see the Appendix).

We applied the method of thinking aloud while reading sentence by sentence as well as after having read the whole text. (We thereby tried to provide a post-hoc check of the still rather vague assumptions concerning the degree of consciousness of literary cognitions; see Viehoff and Meutsch 1985, Meutsch and Viehoff 1985). We deliberately decided to work with this method14 in order to:

- preserve as far as possible the flexibility of the process of Kommunikat-construction, i.e. to prevent a narrowing of this flexibility by other methods of

verbalisation used in psychology, as e.g. recall or recognition (Meutsch 1986a; Meutsch and Viehoff 1985),
- provide evaluations of individual and specific reactions (cf. Black, Galambos and Reiser 1984, Meyer and Rice 1982, Olson, Mack and Duffy 1981, Olson, Duffy and Mack 1984, Schnotz 1984),
- take into account the subject-dependency of processes of Kommunikat-construction,
- provide a rather ecologically valid and relevant test situation, and
- obtain not only analytical items of comprehension but perhaps also experimental and emotive ones (cf. Spiro 1982).

Of course we are fully aware of the problem implied in the application of this method: the verbalisation of processes of Kommunikat-constructions must not be identified with what ‘really’ happens in the cognitive domain during the reading process; test subjects have quite different verbalisation competences, they are dependent upon motivations as to the degree of verbalisation etc. (cf. Scheffer 1985, Definer 1984). But nevertheless we hold the view that at present this method opens up the best way to get information about what happens in processes of understanding.

Our design enables the test of our five hypotheses and some post-hoc activities: the categories 1, 2, and 4 are served by a classification of the stimulated recall protocols, category 3 is served by a questionnaire the test subjects fill in after the thinking aloud-experiment.

The design we chose for our testing is illustrated in figure 1.

The test was executed from October to November 1985 in Bielefeld, Siegen, and Münster. The subjects (N = 48) were chosen according to the parameters age, sex, education, and profession. We happened to get a good mixture, ranging from 15 to 60 years of age, from schoolgirls and housewives to professors and writers.

We organized a single session for every subject. The subjects received written instructions which could be further explained if the subjects asked for it. All sessions were completely recorded on tape. The text was presented sentence by sentence with free reading time; the subjects were asked to report on all (cognitive and emotive) processes they became aware of. They were

<table>
<thead>
<tr>
<th>Text</th>
<th>Method (stimulated recall)</th>
<th>Commenting sentence by sentence</th>
<th>Commenting after reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrative text</td>
<td></td>
<td>12 Ss.</td>
<td>12 Ss.</td>
</tr>
<tr>
<td>Non-narrative text</td>
<td></td>
<td>12 Ss.</td>
<td>12 Ss.</td>
</tr>
</tbody>
</table>

Fig. 1.
allowed to go back to previously read sentences (but of course they were forbidden to skip sentences).

After having finished the comments on (or protocols of) their reading processes, the subjects were asked to underline those parts of the text which they deemed literary interesting, beautiful, moving etc. Finally they had to fill in a questionnaire. The average session took approximately 1.5 hours. D. Meutsch and S.J. Schmidt acted as test directors; experimenter effects were not observed. The taped protocols were transcribed sentence by sentence because we had chosen the sentence as sense unit. Two specially trained raters assigned the dependent variables to the transcribed sentences. The interrater correlation was 0.7–0.8. The machine processing was performed by SPSS 9.

We coded all categories mentioned in section 4.3 sentence by sentence in order to be able to reconstruct both individual reading processes and readings of different parts of the texts.

7. The results

7.1

It turned out that we got a great variety of data lacking normal distribution. Accordingly we only made use of non-parametric procedures for checking our hypotheses concerning correlations and differences in location. Unfortunately, it turned out, too, that the post-reading thinking aloud groups with both texts were rather unproductive; accordingly the planned post-hoc-explorations of the degree of consciousness of literary cognitions could not be realized. The presupposed theories (or models) did not yet allow for multivariate operations. The presentation of our results is therefore restricted to descriptions and non-parametric correlations of 24 subjects. The reported results document the sum of all variables coded sentence by sentence as counting item for each subject.

The results with respect to our hypotheses are shown in table 1.

With regard to H2, \( \bar{x} = 2.7 \) with range = 9 is important for KA RE WE. We found a significant \( (p < 0.001) \) positive correlation \( r_s = 0.52 \) (Spearman) between KA RE WE and the sum of all positive commentaries on processes of Kommunikat-construction (KOMs). The correlation between KA RE WE and the sum of all negative commentaries of PKC is somewhat lower \( (r_s = 0.41) \) but still highly significant \( (p < 0.001) \). The location comparison of KA RE WE concerning text 1 (= narrative) and text 2 (= non-narrative) provides a highly significant \( (p < 0.0083) \) difference \( (U = 27.5) \) in favour of the rank sum of text 2.\(^{15}\)

\(^{15}\) The correction with respect to given ties lies inside the level of significance. Due to the small number of subjects \( (N = 24) \) we looked for exact test values; these, too, are inside the level of significance.
Table 1
Results concerning H1 over both texts.

<table>
<thead>
<tr>
<th>KA PR NE</th>
<th>KA PR PO</th>
<th>KA UR NE</th>
<th>KA UR PO</th>
<th>KOM TE NE</th>
<th>KOM TE PO</th>
<th>KOM PR NE</th>
<th>KOM RE PO</th>
<th>KOM PE NE</th>
<th>KOM PE PO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.98</td>
<td>14.70</td>
<td>4.81</td>
<td>3.70</td>
<td>6.20</td>
<td>3.70</td>
<td>2.10</td>
<td>4.30</td>
<td>5.90</td>
</tr>
<tr>
<td>Range</td>
<td>5</td>
<td>70</td>
<td>46</td>
<td>27</td>
<td>32</td>
<td>16</td>
<td>17</td>
<td>16</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sum of all positive KOMs</th>
<th>Sum of all negative KOMs</th>
<th>Sum of all positive KAs</th>
<th>Sum of all negative KAs</th>
<th>Sum of all POS, KAs and KOMs</th>
<th>Sum of all NEs KAs and KOMs</th>
</tr>
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<tbody>
<tr>
<td>Mean</td>
<td>10.00</td>
<td>14.10</td>
<td>18.30</td>
<td>5.80</td>
<td>28.2</td>
</tr>
<tr>
<td>Range</td>
<td>36</td>
<td>59</td>
<td>71</td>
<td>49</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>101</td>
</tr>
</tbody>
</table>
Concerning H5 we could state only descriptively the existence of conventions as predicted by the empirical theory of literature. Due to the low number of subjects we could not check the degree or kind of interdependence of the cognitive operations caused by the aesthetic and the polyvalence convention. The 13 items in our questionnaire defined to indicate a subject's competence of following the aesthetic-convention could be found in at least 85% of all case. (This result equals those of Hintzenberg et al. 1980: 62–70.)

8. Discussion of the results

8.1

Ad H1: we actually found reading problems in connection with all the dimensions indicated by our dependent variables; that means that H1 has been confirmed (in relation to the restricted conditions of our pilot study).

We found an interesting relation between PKC-commentaries (KOMs) and uncommented PKCs (KAs). A comparison of negative and positive KAs yields a dominance of positive KAs whereas a comparison of the two kinds of KOMs shows a dominance of negative KOMs (see table 1). An exact interpretation of this result presupposes a clarification of the individual function of KAs and KOMs in relation to the whole PKC; otherwise we can only speculate. With regard to understanding problems of which the subjects appear to be fully aware, references to positively experienced processes prevail. But this results cannot be generalized for all literary texts; in order to do that we have to check quite divergent literary texts and contrast them with non-literary texts (cf. Schmidt 1985). In addition, we do not know how far understanding problems can be regarded as the reason or motive of literary understanding processes. In case this assumption holds true, literary understanding processes would have to be explained in terms of a special kind of disambiguation (cf. Schmidt 1985, Viehoff and Schmidt 1985; Viehoff and Meutsch 1985).

8.2

Ad H2: in the groups of subjects who commented on their reading processes sentence by sentence, we ascertained a mean of 2.7 changes of frames of reference per reader and text. If this result can be confirmed in future tests this would mean considerable empirical support of the strong version of the polyvalence hypothesis (sensu Schmidt 1980). We did not interpret the relation between positive and negative comments, because – due to the small random test – we executed no multivariate analysis. This restriction continues our remarks in section 8.1: our present project does not provide evidence for details of the process of literary understanding, its components, and the
relations between the components. We could only grasp certain isolated components. In addition, we need a control group (working with non-literary texts) in order to provide proper findings concerning changes of frames of reference (cf. experiment 2 in Meutsch 1986a, see also Meutsch 1986b).

8.3

Ad H3: the results show that a change of frames of reference triggered by the text is indeed positively evaluated. The correlation between KA RE WE and all negative KOMs is lower than the one between KA RE WE and all positive KOMS, but it is still highly significant. This finding is 'heuristically' productive; but is relativizes the result of H3 which is not unequivocally confirmed. Our analysis of the correlation is still too global to allow for causal explanations. In a further test we plan to combine an analysis sentence by sentence with an analysis of whether or not changes of frames of reference are deemed to be of literary relevance.

8.4

Ad H4: non-narrative literary texts actually seem to trigger more polyvalent processes of Kommunikat-construction than narrative texts. The application of the U-test yields a highly significant dominance of the poem with respect to changes of frames of reference. Further projects will have to provide more evidence for the assumption that the changing of frames of reference is a necessary condition for understanding processes of literary texts. According to available empirical results (see Laszlo 1985) the existence of narrative structures in literary texts cannot be seen as a diminution of their poeticity.

The additional checks for H4 (see section 5) did not yield significant results. As a consequence we intend to differentiate the factor 'text' on the basis of explicit theories in future projects.

8.5

Ad H5: this hypothesis has been fully confirmed (Σ75%). This result corresponds to the one Hintzenberg et al. (1980) found in a survey of the present population in the FRG.

Due to the structure of the questionnaire and the low number of subjects we could not analyse the stock of aesthetic-convention indicators subject by subject. Further projects have to deal with the following problems:

(a) The procedures used by Hintzenberg et al. and by ourselves to describe the form of the aesthetic-convention, are valid and reliable with regard to their purely descriptive function. Interpretations intending to make use of this
stock as a covariate have to develop new modes of constituting this
convention (cf. Schmidt 1985).
(b) As concerns possible functions of literary reception (guided by the aesthetic
convention) the results of applying the questionnaire should not be gener-
alized. An improvement presupposes a clarification of problems as dis-
cussed in the next paragraph.

9. General discussion

(1) The description of PKC needs further specification. We have to regard
smaller units than sentences in order to be able to account for interactions
between micro- and macropropositional processes. On the other hand, specifi-
cation means a more precise explication of qualitative levels of action in the
understanding process. The most popular terms for characterizing literary
understanding ('polysemy') and non-literary understanding ('coherence') do
simply not account for these levels. As long as we are not able to provide a
theoretical model which explicitly displays different types of sense constancy
that are (can be) used in understanding, we still fail to clarify text reception.
Any exact analysis of interactive process (of different ranks) in verbal under-
standing presupposes a clarification of the relation between models of both
language description and action description. Otherwise we shall run into
psychologically naive text ontologies or into linguistically naive psycholin-
guism.
(2) With regard to the models of data evaluation we have to look for
explicit models of text understanding of a holistic format (cf. Schnotz 1985,
Johnson-Laird 1983, Collins, Brown and Larkin 1980) which allows us to
apply multivariate procedures. Until such a model is available we remain
restricted to procedures of the kind we have made use of in the present
project.
(3) As concerns the further methodological development two approaches
seem to be promising (Meutsch and Viehoff 1986):
- One group of researchers favours consensus-theoretical approaches where
the test subject acts as correcting instance. In this approach both the
complexity and the globality is increased – with all pros and cons con-
ected with such a decision (cf. e.g. the procedure of Scheele and Groeben
1984).
- Another group tries to increase the complexity of their theories, making use
of multivariate models. They, too, tend to relativize strict monocausal
explanations, but then still advocate the use of standardized psychological
test methods (cf. e.g. Meutsch 1986a).

16 For a critical analysis of the handling of our project see Alfes (1985).
In our view this alternative should not be interpreted in terms of an either-or of hard vs. soft methods, but instead as a plea for cooperation and complementarity in the field of methodology.

10. Appendix

Gedicht (Autor: Jürgen Becker)

NAH UND FERN

in Gruppen von Blöcken
Erscheinendes spricht so wie bezeichnet oder zu nennen
anstiegend das tiefliegende Panorama
Reihung am Horizont
und das Ausbleiben einer Empfindung heute abend

ein Kamm aus der Tasche gefallen
wie so oft wie verfügbar ich war hemmungslos
dringebliien im Betrieb

rote Streifen sagen wie Gewölk
später eine Schleife dunkler Frühlingsvögel
die Schwellungen dazu des braunen Bodens
unsichtbar die Buchstaben der Seufzer

weitere beleuchtete Gruppen
Bewegungen in der Ferne vielleicht neue Menschlichkeit
ejedenfalls die Ebene neuer Gebetsinhalte
ejedenfalls in der Erwartung des Cups

oder was Interesse
oder gilt nichts im Geräusch der Menge
sagen wir Formen der Hoffnung
leuchtende Identität
und nicht wie unten das Zucken der Ampeln
Prosa (Autor: Lars Gustafsson)

DAS ENDE DER HERBSTES


Dann erhebt sie sich unvermittelt von ihrem Arbeitstisch. Gleich wirkt ihre Statur riesenhaft. Ungekämmt trägt sie das Haupt im Nebel. Mit herabhängenden Armen zieht sie genießerisch den eisigen Wind ein; der mach ihr den Kopf wieder klar. Die Tage sind kurz, die Nächte brechen schnell herein, die Heiterkeit hat ausgespielt.

Wie die anderen Gestirne in der Luft wird die Erde nun wieder ernsthaft. Ihre helle Seite ist schmaler, durchfurcht von Schattenlättern. Ihr Schuhwerk saugt sich voll Wasser und quietscht wie bei einem Vagabunden.

In diesem Froschgesumpfe, dieser heilsamen amphibischen Zweideutigkeit, kommt alles wieder zu Kräften, springt von Stein zu Stein, wechselt von einem Feld zum anderen. Der Rinnsteine werden mehr und mehr.

Ein gelungenes Großreinemachen, und ohne Rücksicht auf Konventionen! Ob angezogen oder nackt – bis auf die Knochen durchnässt.

Und das dauert seine Zeit, trocknet nicht etwa sofort. Drei Monate heilsamen Nachdenkens in diesem Zustand; ohne daß die Gefäße drauf reagieren, ohne Bademantel, ohne Rosshaarhandschuhe. Doch ihre kräftige Konstitution übersteht alles.

Wenn nun die kleinen spitzen Knospen wieder hervorkommen, so wissen sie, was sie tun und warum es wieder losgeht, – und wenn sie sich nur vorsichtig herauswagen, vor Kälte Starr und mit rotem Gesicht, so kennen sie den Grund dafür.

Aber hier beginnt eine neue Geschichte, die vielleicht daraus folgt, aber nicht so riecht wie das schwarze Lineal, mit dem ich jetzt einen Schlußstrich unter diese hier ziehen will.
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