

SOME PROBLEMS OF GENERATIVE POETICS

1.0. The aim of this paper is twofold: first it will give a tentative, systematic survey of some recent work in generative-transformational theory of literary texts, and, second, it will try to answer a certain number of questions left open in this search for a 'generative poetics'. Especially some problems concerning the presumably semantic basis of a deductive theory of texts will be considered in a few highly speculative remarks.

1.1 The applications (now ten years old) of Chomsky's generative-transformational grammar to the study of 'poetic language' have had very important results, mainly in the field of stylistics. The wide-spread enthusiasm of linguists-studying-literature and of literary-scholars-using-grammar for the more adequate theoretical tools, offered by the transformational model with which the sentences of literary texts can be described, can easily be justified. Some remarks, however, may place this success in its right historical and methodological perspective:

(a) The rich tradition of the different 'structural' descriptions of literary texts continues to exercise a strong influence on the so called 'generative' approaches. The structural literary methods, which originated in Russian Formalism and which were enriched by French and American structuralism (Lévi-Strauss, Greimas, Barthes, Todorov, Chatman, Levin, Dundes, Riffaterre, etc.), are even dominating in many other fields of literary theory and practice (narrative structures, myth, meter, etc.), where more traditional methods only recently have given way to the various structural approaches.

(b) Even the work of those who limited their inquiry to 'poetic language' (Levin, Stankiewicz, Saporta, Koch) remains often in the perspective of typical structuralist ideas (mainly represented by Jakobson) as paradigmatic and repetitive ordering in poetic texts, etc.

(c) The application of generative grammar, especially in the first five years of the decade was very modest. Only the last five years show a

much broader investigation. The main-stream of articles gave rather superficial remarks about the degrees of grammaticalness of 'poetic sentences', inspired by existing analogies of Chomsky's now famous *Colourless green ideas sleep furiously*.

(d) And last: nearly all studies were only concerned with the description of (semi-) sentences and of some minor stylistic operations within them, but there was hardly a systematic interest for a possible extension of Chomsky's grammar in order to be able to account for linguistic structures 'beyond the sentence'. Harris' structural, but only superficially morphematic, approach remained unmatched in this field. The use of the deductive model for the generation of texts – and especially of literary texts – was only programmatically advocated by very few linguists, as for example by Bierwisch (1965). Thus, there was in fact not a real 'generative poetics', but only the negative discovery that some isolated poetic sentences could not be generated by the grammar.

2.0. Before we try to tackle some of the problems that remained unsolved or even not stated, it will be necessary to give a very short systematic survey of the main results of the generative approach to literary texts.

2.1 The first question arising in such a survey is that concerning the status of stylistic and literary 'deviations' as stated by Chomsky himself and by some of his collaborators in the frame of their theory.

There are a great number of topics in Chomsky's grammar that are closely related with some of the main problems of stylistics:

(a) the (relative) independence of the formal syntactic structure of the sentence with regard to its semantic interpretation; this would account for the possibility of stylistic 'variants' having the 'same meaning'.

(b) the role of optional transformations in early transformational theory as a basis for stylistic choice.

(c) the description of semi-sentences in the frame of the theory of 'degrees of grammaticalness'.

(d) the fundamental implication of the concept of 'creativity' in deductive systems, to account for the infinite possibilities resulting from recursive and/or transformational rules.

These implications for a theory of literary texts are of course not stated by Chomsky. His explicit remarks about 'deviant' (or semi-grammatical) sentences considered as stylistic devices are only occasional and bear witness of hesitation and uncertainty concerning these intricate questions,

which only seemed of marginal interest to linguistic theory. In his article "Degrees of grammaticalness" (1964) he argues that grammaticalness is only a purely formal concept: ungrammatical sentences are not 'forbidden'. He distinguishes between different types of deviation: the degree of grammaticalness of a sentence is lower when higher category-rules are violated: "The degrees of grammaticalness is a measure of the remoteness of an utterance from the generated set of perfectly well-formed sentences and the common representing category sequence will indicate in what respect the utterance in question is deviant" (p. 387). And in *Aspects* (1965, p. 76): "... it seems that interpretations are imposed on them by virtue of analogies that they bear to nondeviant sentences". That the explicit assignment of degrees of grammaticalness does not give insight in the process of interpretation is stated in the important note on p. 228: "Grammaticalness offers no insight into order-inversions as a stylistic device."

Katz (1964), not satisfied with the formal account of 'grammatical' sentences alone, argues that a THEORY OF SEMI-SENTENCES is necessary to describe the process of their interpretation. He rejects Chomsky's solution (level-depending violations) because it does not differentiate semi-sentences from 'nonsense-strings', and it does not tell us which semi-sentences are comprehensible and which are not. Semi-sentences, according to Katz, are interpreted as if they were actually those sentences associated with them by the rules (p. 411). He postulates a specific set of syntactic and semantic 'transfer rules' and 'traffic rules' in order to give a formal account of this type of interpretation.

2.2 The criticisms leveled against the aims of Chomsky's model and against the lack of interest for problems as metaphorization, stylistic deviance, text structures, etc. are becoming more frequent these last years. Bolinger (1965), commenting on Katz and Fodor's semantic theory, argues that "one corroboration of a marker theory would be the prediction of semantic shifts" (p. 566) as for example in the process of metaphorization (cf. van Dijk, 1970c and 1970d). Weinreich (1966) provides such a rule which accounts for metaphorization, and McCawley (1968a) confirms the need of lexical prediction rules of this kind. Chafe (1968) finally indicates that Chomsky's grammar cannot describe idiomatic structures in which a semantic change has taken place.

2.3 It might be clear that the implicit refusal of the leading transformationalists to treat these borderline issues does not imply a total lack of interest, but rather a methodological decision. They would undoubtedly state that:

(a) most of the questions belong to the study of performance (the use of the rules in concrete situations) for which they cannot yet provide a theory, the psycho-social variables determining the form of actual utterances being too numerous and too complex,

(b) a great number of problems can only be resolved when we have a more advanced theory of semantic representations, etc.

They are right in stating the priority of a description of the basic linguistic regularities, for only with the help of this 'elementary grammar' can a further exploration in the field of some more or less productive 'marginal' rules – as those used mainly for stylistic purposes – be successful.

3.0. However, those who were interested in the formal study of the literary text could not wait until all these problems were solved and they began to use the provided grammatical theory in their descriptions of the sentences of the poem. One of the striking facts of these first applications of generative grammar has been their rapidity: only one year after the publication of Chomsky's *Syntactic Structures*, the linguists who took part in the (first) "Style in Language" conference of 1958, tried to reformulate in transformational terms some classical problems of stylistics. Some of these papers may very shortly be mentioned:

3.1 Voegelin (1960) seems clearly beside the point in taking the typical view-point of PERFORMANCE: he distinguishes between casual and non-casual utterances, and he demands a unified grammar for both. This distinction seems useless for a formal theory (as is a grammar) because it can only be based on frequencies. These might have their usefulness in a theory of information, but not in a theory that only wants to differentiate between several types of sentence-structures (and not of utterances).

Stankiewicz (1960) rightly recalls that poetic language does not necessarily violate the rules of grammar, and – which is more important for our discussion – even if this should be the case many of these violations can be predicted out from the system of the rules of 'poetic language'. The violation-rules seem to be coded, for deviation is – in performance – EXPECTED as a typical (necessary) aspect of the type of text involved (modern poetry).

Saporta (1960), very early, speaks about 'degrees of grammaticalness'. Poetry, he argues, is characterized by a density of lower-order grammatical sentences. A grammatical description can only reveal the irregularities and make explicit ambiguities, but it cannot give an interpretation of them. We have seen that Katz (*art. cit.*) claims to have given a theory

for such an interpretation of deviant sentences. Saporta, preceding Chomsky, already gives a measure of the deviation: they are more ungrammatical if more important rules have been violated. One of the important aspects of Saporta's paper is that he has recognized the limits of a grammatical description of literary texts.

3.2 The echoes of these first applications of generative grammar in literary and stylistic research will come back in most of the following articles on the subject. Halliday (1964) claims that 'linguistics and poetics' cannot be separated, and that a linguist must provide a description of ALL TEXTS – as a part of applied linguistics. A very important aspect of Halliday's paper is his interest in the problem of the COHESION OF TEXTS. He distinguishes between grammatical (syntactic) and lexical factors of this coherence. The syntactic coherence is structurally (as in embedded clauses) or non-structurally dependent (anaphora, deictics, pronouns and verbal and nominal substitution) while lexical coherence is determined by the repetition of identical items or of items from the same lexical set. These elementary remarks form the basis of the more comprehensive THEORY OF TEXTS which has to be developed as a necessary prerequisite of a formal theory of literary texts. The problem of pronominalization (as a type of transformation) and of referentials has been accorded much attention lately (Harweg, 1968; Hiz 1969; Dougherty 1969; Reibel and Schane, eds., 1969), as a necessary aspect of textual structures.

3.3 The work of Samuel Levin has been of exploratory importance in the new discovered country of 'generative poetics'. In his well-known book, *Linguistic Structures in Poetry* (1962), which has been heavily influenced by Jakobson's ideas, he formulates, first, one basic problem of literary stylistics: the theoretical status of ungrammatical sentences. Are they specific selections of poetry (to be considered as 'performantial' use of – normal – language) or must we account for them by constructing a special 'grammar' for poetry? This last solution is retained as a working hypothesis. The form of this 'grammar' however is rather intuitive and is more 'structural' than 'generative' or 'transformational': it accounts mainly — and empirically — for some processes of 'coupling' (the establishment of syntactic and semantic equivalences in a text) without giving explicit RULES for these operations in poetic language. His discussion of some fragments found in the work of E. E. Cummings (*he danced his did; a grief ago*, etc.) leads to the conclusion that poetry has a set of grammatical categories between which the boundaries can be fluctuating (verbs can have the function of nouns, etc.). However, no

rules of transfer (as given by Katz, *art. cit.*, and Weinreich, *art. cit.*) are given to account for this process of metaphorization. A large empirical investigation must give the necessary data for such a theory of lexical and categorical permutations (transformations?). A thorough grammatical description of literary texts fails, and we can only tentatively speculate about the possible form (and the generality) of such 'literary' rules.

Hendricks (1966) in his review-article on Levin's book gives a useful 'classification' of the types of application of grammar to the study of literature. A first group of linguists considers linguistics as an ancillary, preliterate basis of literary analysis. Another group believes that linguistics can solve a number of traditional 'literary' problems as well. Finally there are two groups which claim that the field of linguistics proper has to be extended in order to be able to include all types of language data (cf. also the review-article by Ruwet (1963)).

In his paper for the Congress of Linguists in Cambridge (1962) (Proceedings 1964) Levin treats more specifically the theoretical problem of over- and undergeneration of Chomsky's grammar. Some existing poetical sentences cannot be generated, whereas if the grammar would be extended to account for them, a huge number of other sequences would be generated as well. Chomsky's theory of 'degrees of grammaticalness' is said to offer a satisfactory solution to this problem.

Quirk (1964), discussing Levin's paper, argues that 'poetic sentences' must not be generated by the grammar, no more than all the other conceivable sentences of performance, but only accounted for in a structural description. This defence of the position of the 'pure' linguist is undoubtedly an advantage for the simplicity of our grammar, but it fails — in principle — to reveal the possible REGULARITIES in the construction (that is, formally, in the derivation) of deviant (poetic or non-poetic) sentences. The explication of this type of regularities however could be considered as one of the tasks of the theorist of literature (or of style in general).

Richard Ohmann (1964), in one of the first articles wholly dedicated to 'generative poetics', presents a more detailed treatment of the main problems of stylistics. Matching the traditional form/content problem with the distinction between deep- and surface-structure of sentences, he propounds a number of very relevant questions: a) what is stylistic 'variation' of the 'same' substance or content? b) when do we get a different meaning?, etc., questions that have to be understood in the traditional perspective of the existing 'definitions' of style: 'Saying the same thing in other words', etc. The GENERATION (!) of stylistic devices is located,

not in deep structure (as products of specific PS-rules) but in surface structure (as resulting from T-rules). He gives three reasons for this decision: (a) transformational rules are optional, which implies that they can be subject to variable CHOICE (b) T-rules only modify the structure of a given string and do not alter lexemes (and their meanings) (c) T-rules basically account for the relations between complex and simple ('kernel') sentences, which implies that alternatives of kernel-combinations are equivalent. These remarks are still valid even when on all these points the conception of the transformational component of the grammar has changed. Ohmann, finally, makes a very crucial point. Transformations, he says, cannot be considered as equivalent to stylistic variants, because the meaning is always (however slightly) changing during the transformational process (cf. also Kristeva's remarks on this subject: 1968: p. 303). Recent generative semantics could perhaps account for this question because it does not principally exclude 'semantic' transformations (as for instance in the process of metaphorization). It even claims the theoretical necessity of post-transformational lexicalizations as we shall see below (cf. Chomsky, 1968; Fillmore, 1969; Lakoff, 1969; van Dijk, 1970c).

4.0. All these articles mainly treat the generation (or not) of some possible 'poetic' sentences, and even when a 'special' grammar is advocated, as by Levin, there are hardly indications how this sort of grammar should look. The problem is limited to some 'stylistic devices' (which are not excluded in non-poetic language) of poetry; not treated are the (macro-)structures of literary texts as they appear for example in narrative texts.

4.1 A much more fundamental discussion of the problems of a 'grammar' of literature is given by Bierwisch (1965). The first issue he deals with concerns the proper task of 'poetics' (*Poetik*), which is said not to be the (hermeneutic or statistic) description of texts, but the formulation of REGULARITIES of texts. The methodological importance of such a remark is clear: analysis is only a preliminary stage of scientific research, the proper task of science is the construction of (testable) theories. The hypothetical rules that have to account for these regularities make up the 'poetic competence' (P), which together with the grammar (G) of the language can produce all possible 'poetic structures', and which have to assign to them a 'degree of poeticalness'. In the derivation process of such sentences their semantic, syntactic or phonetic 'form' will be indicated by a mark. Bierwisch emphasizes that such a 'poetic sentence'

is only a formal construct: 'real' poetic sentences undergo the normal fluctuations of empirical performance.

While Bierwisch seems to ADD a literary component to the grammar, Bezzel (1969) feels the need for a poetic 'subcomponent' for this grammar, which has to describe the production of poetic texts by formulating additional rules and deviations of rules. He rejects Bierwisch 'poetic competence' because all stylistic features (metaphor, ambiguity, parallelism) have a linguistic character and can therefore be described in a (extended) grammar. However, so he says, we need in addition an aesthetic theory to account for the non-linguistic aspects of poetic structures. In the end of his article however the 'grammar of poetry' (GP) does no longer seem to include the grammar of (ordinary) language (GL), which contains less rules than GP and can thus be considered as a (proper) subset of GP. Very important is his statement that for a grammar of poetry the initial symbol S cannot be left unquestioned. Strings of morphemes, then 'complexes of sentences' and, finally, whole texts must be generated to account for the basis of a poetic theory.

4.2 Another important discussion was published in the *Journal of Linguistics* after a first article of Thorne (1965) in the first issue, in which he comes back to the problem of the theoretical status of 'literary' rules. Poetry, he argues, must be considered as a dialect, different from Standard English. In this dialect we find rules that admit the operations in which a noun can be rewritten as a verb, etc. Hendricks (1969), criticizing Thorne, seems to be more sceptical and states that no grammatical frame of reference will do, and that a lexical and textual approach like that illustrated by Riffaterre would be more successful. Thorne (1969), replying, rejects the criticism that he did not use the results of Chomsky's *Aspects* (his article appeared in the same year), and admits that Katz and Fodor's semantic theory offers probably more interesting help to solve the main problems than does syntax.

4.3 Hendricks (s.d.) in a still unpublished new version of his doctoral dissertation, gives an extended survey of all these problems relating linguistics and poetics. He proposes the term *stylo-linguistics* for this field of inquiry, where a linguistic analysis of the structures of language of a text precedes the critic's synthesis of these results. The Chomskyan model has to be extended and/or modified, for it does not really account for the generative (creative) aspects — in a pregnant sense — of language such as semantic change. Hendricks, who is mainly concerned with narrative structures, states that a text cannot be considered as an additive process of subsequent sentences and that therefore grammar proper is

not able to describe long-term structures as 'plot', 'character', etc. The same point is stated in his article, of 1969 (pp. 16-17), in which he adds that there is no 'poetic language' but only 'poetic texts'. This very radical solution discards a traditional problem which had preoccupied literary scholars and stylisticians from Russian Formalism onwards (if we do not want to go back to Coleridge and further yet...). In his monograph he further argues that narrative structures for example cannot be conveyed without linguistic elements. He therefore adopts the idea that these structures are coded by a 'secondary system' which can only manifest itself through the linguistic structures that are taken together in higher 'tactic' levels. Hjelmslev and the actual Russian semioticians had the same idea: a literary text is articulated in a primary linguistic material and must therefore be considered as structured by a secondary system (cf. Lotman, 1967; Eimermacher, 1969; Faccani and Eco, eds., 1969). His very interesting ideas about a linguistic theory of literary discourse will be mentioned below.

4.4 Ihwe finally (1970) goes back to one of the most crucial problems of the whole discussion and tries to answer the question about the relation between competence and performance in poetics. He first resumes in two groups the most frequent positions in the application of generative grammar in the description of literature: (a) deviations from or extension of the grammar, and (b) the creation of a poetic competence, a position that does not 'reduce' literature to the grammar of normal discourse.

Ihwe then considers some of the theoretical possibilities of the intricate relations between linguistics and poetics or rather between language competence and language performance at the one side and literature on the other. First, literature can be considered as a specific USE of the given rules of language, and belongs therefore to linguistic performance. In this use all the rules of language are systematically applied, it is only acceptability that can occasionally be violated. An additional theory of literature and of aesthetics would in that case be necessary to account for the specific (literary) implications of this 'use' of the language. This is in fact the position of most 'orthodox' linguists.

A more satisfactory solution would — according to Ihwe — perhaps be the following: apart from the set of 'idealized' (abstract) sentences there would be a number of related sets (of sentences, of texts) generated by the same grammar to which some extension rules are added, in accordance with empirically justified criteria. Poetry would in that case be a sub-language L_m generated by the subgrammar G_m which is only one set of possible rules in the series $G_1 \dots G_n$. However, this solution cannot

be retained, for it is too complex and it would obscure the concept of style by the generation of too many different styles. A less ambitious program would be the construction of a spatio-temporally limited sub-grammar for specific 'idiolects'.

Another possibility was already described above. It is the theory of semi-sentences of Katz, in which rules for the interpretation of deviant sentences are given. Ihwe does not accept this possibility because poetry also contains nonsense-strings for which Katz does not provide any theory of interpretation.

Ihwe first seems to arrive to the rather unexpected conclusion that an autonomous 'linguistic poetics' is superfluous, because deviations cannot precisely be predicted, and moreover they are not a necessary condition for poetry. Could literary semiotics or literary sociology be of any help here? These 'super-sciences' however have not as yet solved any problem of a textual character, and therefore Ihwe is forced to return to his, now modified, initial hypothesis: poetics is perhaps not wholly linguistic but is founded on grammar. Linguistic units are only the basis of more complex non-linguistic structures. This is essentially, as we have seen, the point of view of Hendricks and other 'stylo-linguists'. To assure the autonomy of Poetics he chooses for Bierwisch 'poetic competence' grammar, but the relations to the language in that case must be explicitly stated: (a) literary structures are based on linguistic structures, (b) the poetic competence is not a general and 'necessary' faculty, but a learned ability, (c) poetic competence is a derived faculty with regard to linguistic competence. There is a possibility of testing our grammar of the 'literary system' by simulating the production of texts. The theory of poetic competence and performance forms the basis of a larger 'theory of literature', which has to include literary sociology and literary psychology. This whole literary theory is finally situated in the area of the linguistic performance (for a very extensive discussion of all these problems, cf. Ihwe's excellent doctoral dissertation, Ihwe, 1971).

5.0 There are finally two other, very recent and closely related, branches of generative grammar that seem to point to a much sounder basis for a formal poetics: GENERATIVE SEMANTICS and the THEORY OF TEXTS (discourse). It is striking to see that many linguists who are asking for the elaboration of a basic semantic component of grammar also seem to advocate more interest for the structure of discourse, i.e. structures 'beyond the sentence'. One of the few mentions about the status of discourse is given in Katz and Fodor's article (1964) where we can read

that texts are simply to be considered as 'long sentences' which can easily be generated by repeated embedding or conjunction of new sentences by a recursive rule. This seems a very attractive hypothesis and it certainly is one important aspect of the whole issue. It does not, however, account for the intuitively known fact that a text possesses other (formal) relations than those which relate subsequent sentences. Hendricks (1969), as we already mentioned, remarks that the structuration and interpretation of texts is not an additive process but a process of re-cycling, etc. That the existence of a theory of discourse is closely related with a sound theory of semantics can be understood from the hypothesis which says that the coherence of a text is not primarily a matter of syntax (or phonology) but essentially a semantic question. The only syntactic dependencies can be noted in directly contiguous sentences as for example in different types of embedding and conjunction resulting in pronominalizations, etc., while phonology has to account for aspects of stress and intonation (focus, etc.) of sentence sequences, for example in dialogical texts.

5.1 Before we go on into the discussion of this extremely important issue, we have to mention another 'literary' application of semantic theory, also related with operations within the sentence. From the beginnings of transformational grammar it seemed clear that grammaticality is meaning-independent. However, after Katz and Fodor's article, Chomsky had to admit that the sub-categorial base of his grammar, which had to formulate the precise rules of selection and contextual constraints, could not be separated from the semantic component of the grammar. Lexical relations (often of a 'transformational' character), selection restrictions, contextual determinacy, etc. seemed to be dependent also upon the semantic features of a lexical item. However, this 'semantic part' of the grammar was not 'generative' but 'interpretative': the meaning of a sentence was not constructed from its elementary semantic categories and then given a syntactic 'interpretation' as for example McCawley (1968a, 1968b) and others advocated.

The semantic conception of the base of the grammar seems to provide a possible solution to a great number of problems that remained unsolved in a narrow syntactic conception of grammar. Chomsky's (1968, 1970) reservation is comprehensible: there is not yet a precise calculus that should give the explicit description of such a semantic structure and of its relations with the formal syntactic structures of the sentence. But even in the 'interpretative' conception of Katz, modified by Weinreich and others, there are tools with which we are able to account for a certain number of stylistic phenomena of 'semantic ungrammaticality' as metaphorization,

allegory, personification, etc. which appear frequently in literary texts. Weinreich (1966) formulates a rule, which he calls 'construal rule', with which a semantic feature can be transferred from one lexical item to another in a syntagmatic construction where one of the two is semantically ungrammatical (cf. also Katz: 1967). We have proposed some additions to his formulation of the problem (van Dijk, 1970c and 1970d). It seems that the processes of different types of metaphorization can explicitly be described by now, not only negatively by giving the reason of semantic ungrammaticalness, but also by giving a positive generative description of the process. This process results in a lexical transformation (substitution) based on one (or more) common features. Random metaphorization (as occurring in surrealist poetry) can only be explained (motivated) in a concrete context by making explicit common features between the lexical item substituted and the other lexemes of the text (cf. Bickerton, 1969; Petőfi, 1969).

We now have to return to the main problem of this section: the generation of whole texts and their postulated semantic deep-structure.

5.2 Not only in poetics but also in recent linguistics one notices an increasing attention for linguistic structures that go 'beyond the sentence', that is: for TEXTS. This attention for the study of linguistic discourse has been characteristic from classical rhetorics up to structural linguistics. The methods that were used in these descriptions of trans-phrastic structures remained however far from explicit and no serious theory could therefore be elaborated. The claims made by the chomskyan model have of course a strong influence on the most recent attempts to give a theory of text-structures. One of the first questions in that case would be: can a text be formally derived? The leading transformationalists seem to relegate discourse to performance, which implies that the production of a text (in a certain language) is not determined by formal rules of linguistic character. We shall see that this position cannot account for a number of important problems. That is the reason why some linguists such as Bever, Ross, Lakoff, Isenberg, Baumgärtner, Greimas, Hendricks, Sumpf, Dubois, Hartmann, Petőfi and literary theorists like Kristeva, Todorov, Ihwe and others are trying to develop a grammar of discourse (texts) initiated by structuralists as Harris, Harweg, Koch and others.

The structuralist approach to the text has an empiricist character. It is mainly concerned with GIVEN texts, in which it tries to find – as Harris (1964) did – relations of equivalence and transformation. The important book of Harweg (1968) does not go beyond an intricate classification of pronominal relations. Bever and Ross (s.d.), after Lakoff the first trans-

formationalists interested in the theory of discourse, only give some superficial remarks about the contiguous relations between sentences. They conclude that anaphoric identity is not a sufficient condition for the coherence of texts. More abstract structures must probably be postulated. Moreover, they ask, can a text be generated without access to extralinguistic material – which is considered to be necessary in order to explain the notion of coherence? Semantic interpretation, they say, is unsolvable in linguistics proper (p. 8). They talk about an “abstract concept generator” which produces “some kind of abstract object” which represents the maximal content of a whole set of discourse deriving from this concept.

Isenberg (1968) goes much further in this direction, even when he as well is limiting his interest to the relations between subsequent sentences. He first establishes an analogy between sentence and text (both are in principle infinite in length, both can be interpreted as deviant, ungrammatical, etc.). His arguments for a linguistic theory of texts are very decisive if indeed, as he claims, the following traditional problems could be resolved: anaphorical expressions, selection of definite or indefinite articles, pronouns, stress, intonation, emphasis and contrast, assimilation in the application of some rules, continuity of tense, etc. If not, many isolated sentences would be considered as ungrammatical, without any empirical confirmation of this fact. Isenberg then provides a number of types of structuration (*Vertextungstypen*): thematization (repetition) of identical referents even when represented by different lexical items, causal relations, specification, metalinguistic reference to previous sentences, temporal relations, presupposition, contrast, question/answer, comparison, (auto)-correction etc. His grammatical model is that of Chomsky (1965) and Katz-Fodor, that is: a generative syntax and an interpretative semantics. This choice might perhaps be justified for contiguous sentences, but for larger structures a deeper and more embracing semantic theory seems to be necessary. To account for the (limited) selection of nouns in subsequent sentences, Isenberg introduces a number of ‘features of reference’ (*Referenzmerkmale*): new/same object, known/unknown to reader, general/specific, etc. Nouns are given referential integers, without which they will be eliminated by transformation. His textual derivation seems a simple extension of the generative model:

- (1) TEXT \rightarrow ($\#$ S $\#$)ⁿ (n \geq 1)
 S \rightarrow NP VP
 etc. .

where N receives a number of contextual selection restrictions that bring

it in accordance with nouns in the preceding sentence (cf. also Isenberg, 1970). This type of investigations receives more attention these last years (cf. Hiz, 1969; Dougherty, 1969; Heidolph, 1966; Karttunen, 1968 a, b, c, 1969; Dressler, 1970; and especially Kummer 1971a, b; Ihwe, 1971; van Dijk, 1971d).

Irena Bellert (1970) finally does not limit herself to a discussion about the coherence of subsequent sentences. The interpretation of sentence S_1 is not determined by the interpretation of $S_1, S_2 \dots, S_{i-1}$ alone, other knowledge is also required, for example an inductive knowledge of the world. All the inferences in the text must be accounted for by the logico-semantic structure. Recent semantics has in fact partially solved the problem of (lexical) implications (*He has a son* implies *He has a child*, etc.) which are considered by Bellert as important aspects of the coherence of texts (cf. Fillmore, 1969). Truth and consistency are beyond the scope of linguistic analysis, but other indices can be studied as linguistic connectors of a text: as pronouns, adverbs, etc. Nouns can be considered as logical variables, which however, according to Bellert, must be bound by an iota-operator: one variable of the preceding sentences must be repeated in a given sentence. In case of pronominalization a 'referential operator' must be used which has to indicate the identity of the objects a speaker is referring to at a time t .

5.3 From the mentioned attempts it can be concluded that the intricate but concrete problem of the coherence of subsequent sentences can be solved. Many remarks however indicate that another component is necessary to explicate the more abstract and global 'unity' of a text, which does not depend on syntactical 'transitions' alone. There is some point in comparing this sentence-to-sentence investigation with the markov-models proposed for the study of sentence-structure, which has been rejected by Chomsky as insufficient for natural language. A Phrase-structure-grammar, to which a transformational component was added, could much more adequately account for the intricate structure of complex sentences, by providing a number of rules that could generate (formally) all the possible sentences that make out a language. Just so, in a formal theory of texts, it would probably be inadequate to limit ourselves to the study of the syntactic and semantic conditions that relate S_1 to S_{i-1} or to all the preceding sentences alone. This type of transition-grammar only would account for one aspect of the whole problem: that of the immediate compatibility at a 'micro-structural' level.

Even when a LOGICO-SEMANTIC STRUCTURE is more abstract (and 'loose') than a syntactic sentence-structure, the selection of S_1 cannot

only be explained on the basis of the interpretation (semantic structure) of S_1 to S_{1-1} , no more than the selection of word W_1 in a sentence is only determined by the preceding words of the sentence. However, at first sight there seems not to be a direct analogy between a syntactic phrase-structure and the global structure of a whole text. Even if there would be a textual NP, VP, etc. these very abstract categories would not reflect a serial order at the surface of the text. The analogy between text and sentence, already noticed by Isenberg (*art. cit.*), Kristeva (1969: p. 442), Hendricks (s.d., p. 64) and others, is probably not located on this 'syntactic' level, even when we could give a 'semantic' (or 'logical') interpretation of syntactic categories or relations: NP-S (subject): actor or topic, VP-S (predicate): predicate or action, etc. All these categories are, at the level of the whole text, given simultaneously within each individual sentence. If indeed there is no syntactic dimension in the semantic structure of a whole text, we would conclude that a set theoretical point of view – as supported for example by the applicational grammar of Šaumjan (1965) and Soboleva – or a relational model perhaps could provide more adequate descriptions. In that case the semantic deep-structure of the text would be serially unordered. However, it is not (yet) clear how a set of lexical structures can be formally related with a serially ordered surface-structure of subsequent sentences. Moreover, even the abstract deep-structure of a text can only be interpreted when some type of RELATIONS between the semantic structures is considered: $X R Y$ is only in a very few cases (reflexive relations) identical with $Y R X$, when we interpret R as a predicate-like or verb-like semantic relation between nominally interpreted X and Y . The relation between the abstract deep-structure and (an ordered) surface-structure, must be a type of one-many relation, i.e. the very abstract logico-semantic subject(s) of the deep-structure is related with (logical) subjects of the different sentences 'at the surface', or rather: at the micro-structural level (which of course itself has a deep-structure and a surface-structure); the same for the predicate, etc. The transition from textual deep-structure to the semantic deep-structures of the linearly ordered set of sentences must be operated by a special type of semantic rules (transformations) under condition of some general surface-rules for logico-semantic implication, presupposition, topology, chronology, which of course have yet to be formulated.

The theoretical problem turns out to be extremely intricate. We can only retain the following points: (a) the interpretation of a whole texts is based on the semantic 'material' of its sentences, (b) such an interpretation could be considered as an accumulation of semantic features and

semantic clusters (or perhaps even of whole lexical or nearly-lexical units), (c) the repetition of such features and clusters form the basis of the semantical deep-structure of the whole text, (d) this deep-structure, just as the deep-structure of a sentence, can only be interpreted if there are given some relations between the semantic 'categories' (subject, etc.) which — by their repetition in the whole text — are part of the textual deep-structure (cf. Laffal, 1970: 175).

This last point can be illustrated as follows. We adopt the hypothesis that the title above an article in the paper can be considered as a very rough (often partial) lexicalization of the semantic deep-structure of the article. A title as:

(2) CAR COLLIDED WITH BIKE

is in that case a manifestation of another 'content' than the title:

(3) BIKE COLLIDED WITH CAR

Thus, in the reading process — which of course is only performance — there must be a semantic structuration of the lexical units (and features) which is analogous with that of a sentence. This does not imply however, that every sentence of a text must have the same logico-semantic structure. In the text 'resumed' by title (3), the 'car' can be the (grammatical) subject of certain sentences:

(4) *The car had only a few scratches*

etc.

We must however study not only the syntactic structure of such sentences, but also the semantic structure of their lexical items. Structures as X receives A from Y can be considered (cf. Gruber, 1967) as transformations of Y gives A to X. For the global deep-structure of the novel (or film) the following invented sentences from the James Bond cycle must be considered as equivalent (cf. already Harris' early attempts):

(5) (a) *Bond received a blow from Blofeld*

(b) *Blofeld hit Bond*

(c) *Bond was hit by Blofeld*

etc.

The whole context however indicates that Bond is the logical 'subject' of the narrative, even when one of his antagonists ((in-)direct objects) is the logical subject of one sequence. The sentences of (5) must be integrated in a contextual structure which can be represented as follows:

(6) BOND IS FIGHTING (with) BLOFELD

We have arrived here at the FUNCTIONS of the structural analysis of narrative as practiced by Propp, Brémond, Greimas, Lévi-Strauss, Todorov, Barthes, etc. (cf. *Communications* 8). Greimas (1966) for example has tried to find the logico-semantic categories of whole texts, the ACTANTS. These have a certain analogy with the syntactico-semantic categories of a sentence. This analogy, as we remarked, has been established by others as well (Hendricks, Barthes, Kristeva). One of the most interesting implications of a syntactico-semantic analogy between the deep-structure of a sentence and the deep-structure of a text is perhaps the possible application of some transformational rules to the textual deep-structure (cf. Todorov, 1968: p. 132 sqq. Van Dijk, 1970a). In fact the whole textual deep-structure can be considered as analogous to the deep-structure of a COMPLEX sentence, which is the result of a number of embeddings, transformations, etc. of 'simpler' constructions ('sentences': S) of the deep-structure. These (embedded, etc.) deep-structures of the complex sentence could in that case be considered as analogous with the sequences of a text, considered as rather independent structures (paragraphs, chapters, etc.).

From an intuitive point of view this hypothesis seems very illuminating for a great number of problems. But how can we relate this postulated semantic deep-structure of a text with its extremely complex surface-structure? We need an explicit derivation in which global semantic categories ('lexicoids', clusters, configurations, etc.) are rewritten as concrete lexical items of sentences with a certain syntactical structure. It is possible that we have to postulate several intermediate stages of text-generation to account for the coherence of certain sequences in the whole text: an embedded sequence in another embedded sequence is not directly related with the original matrix-sequence, etc. In other texts (short poems) the textual deep-structure might be identical with the deep-structure of the (complex) sentence(s) of the text.

Before we can say some more about the relation between textual deep-structure and textual surface-structure we have to give some reasons that have led to the postulation of the existence of a textual deep-structure:

- (a) the coherence of texts (in narrative structure: plot, etc.)
- (b) the possibility of summarizing a text in an abstract, a title, etc.
- (c) the possibility of memorizing the 'content' of a long text (even without using the lexical items of the text itself)

(d) the possibility of writing different texts with an identical semantic deep-structure (as in pastiche; making a drama, a film, of a novel, etc.)

Perhaps we can (cf. b) represent the deep-structure of the text as a sort of lexicalized abstract, a conclusion to which Hendricks has also arrived (s.d. p. 57). In our search for MODELS for the postulated semantic deep-structure we have considered the analogy with the deep-structure of a complex sentence; a title, an abstract (résumé), etc. could in that case be considered as more 'concrete' representations of such a textual deep-structure. Another analogy is suggested by the PROGRAM in computer-language which is guiding (prescribing) the different operations to be executed. The semantic deep-structure of the text is in that case the 'program' that pre-determines the selection of the different lexical items of the sentences. Another suggestion comes from psychology. Deep-structure can be considered as the *plan* of a text, just as our behaviour seems to be determined by underlying 'plans' (intentional schemata, etc.). This idea has been put forward by Miller, Galanter and Pribram (1960) who, very strikingly, have been searching for confirmation in linguistics: Chomsky's 'deep-structure' is considered as the 'plan' of our speech. The authors make the same comparison with the program that guides an electronic computer (Dressler, 1970, refers to the same model).

This psychological confirmation (cf. also Neisser, 1967) of our hypothesis implies that, in producing a concrete text, we have an 'image' (however vague) of what we are going to say. It is clear, as the authors have remarked themselves, that such an image is different for a greeting and for a sonnet.

The plan of a text does not, of course, 'prescribe' the exact selection of certain lexemes, but only limits the choice of all possible lexemes. The rules that underly this choice are therefore very abstract. The only condition seems to be that — on the whole — certain lexical structures must be present and repeated. The place of the lexical items manifesting 'at the surface' these (repeated) structures depends on the more general (textual) rules of logic, chronology, topology (implications, etc.).

We could very tentatively try to give a formal description of the derivation of the semantical deep-structure of a text, for example as follows:

- | | | | | |
|-----|-------|---------------|------------------------|----------|
| 1 | T_0 | \rightarrow | $T (& T)^n (n \geq 0)$ | |
| (7) | 2 | T | \rightarrow | TQL PROP |
| | 3 | TQL | \rightarrow | PERF MOD |

- 4 PERF → { ASS
IMP
QU
NARR
... }
- 5 MOD → { AFF
NEG
POSS
PROB
FACT
... }
- 6 PROP → PRED { ARG }ⁿ
- 7 PRED → { ACTION
STATE
EVENT }
- 8 ARG₁ → AGENT (T)
- 9 ARG₂ → PATIENT (T)
- 10 ARG₃ → OBJECT (T)
(...)
- 11 ARG₁ → TIME (T)
- 12 ARG₁ → PLACE (T)
(...)
- 13 ACTION → LEX [+ Action,...]
- 14 AGENT → LEX [+ Hum,...]
(...)

This very rough sketch of textual (macro-)derivation is based globally on a (modal) predicate calculus of relations, a model which is comparable with Fillmore's (1968) case grammar for the description of sentence structure. For textual derivations of this type, cf. Ihwe (1971) and Petőfi (1971). Some brief comment is necessary here (for detail, cf. van Dijk, 1971d):

The first rule is a rule-schema which assures recursive coordination of T at the same hierarchical level. Other recursive elements (texts may theoretically have infinite length) are built in in lower rules.

Rule 2 analyses T as a Text Qualifier TQL (cf. Seuren, 1969: 168, for Sentence Qualifiers and their theoretical status) and a nuclear text

proposition PROP. TQL contains the elements modifying the text as a whole, first a performative category indicating the TYPE of text together with PRAGMATIC operators for time (t_0) and place (l_0) of the utterance. MOD specifies the different modal aspects of the text as a whole. Combinations of these modal categories, as NEG FACT, are possible and defined in the metatheory. Time and place of the event described by the proposition are indicated by t_1 and l_1 , together with rule 11 and 12 which specify time and place of the event itself. (Categories for Aspect may be added there.)

The proposition is expanded as an (n-place) predicate and (n) arguments. The arguments receive their relational character as specified by the 'rôles' indicated in rules 8, 9, 10... Other primitive relational categories may be introduced. The theoretical status of these categories however is not yet wholly clear (cf. van Dijk, 1971d, Chap. 3, and Chafe, 1970). It would be more correct, anyway, to specify the arguments as variables, letting the predicate denote their specific content (cf. Rohrer, 1971 for fundamental discussion of this issue).

A second type of rules has to rewrite the different categories (which can and must be refined) as different (pre-)lexical structures provided with different indices. These different, very abstract, pre-lexical structures are supposed to underly classes of existing lexical meanings of (a particular language). From these classes have to be selected the lexemes of the sentences of a particular sequence, for example as follows:

- (8) $LEX_{qual} \rightarrow$ "good", "bad", "beautiful" ...
 $LEX_{hum} \rightarrow$ "man", "woman", "hero", ...
 etc.

The lexical meanings finally receive their language-dependent phonological representation and their sentence-dependent syntactic structure. The superficial character of these last steps of the derivation is illustrated by the process of (possible) translation of texts, during which the textual and semantic deep-structure of the sentence must be kept identical. In that case, as other recent articles in the field of generative grammar have proposed (McCawley and others, cf. Abraham and Binnick, 1969, *passim*), the syntactic and phonological structure could be considered as the result of (optional) transformations — substitutions — that relate the wholly semantical deep-structure with a surface-structure of more empirical character. If this is true, the traditional syntactic categories, which establish the relations between the lexical units, must have semantic equivalents in the deep-structure. We have suggested (1970a) that these

'syntactic' categories in the semantic structure of the meaning of a sentence could be considered as 'vectorial' features (cf. Gruber's, 1967, basic propositions).

In the generation of the different sentences of the text we need of course the 'traditional' (but not yet formulated) rules that govern the semantic compatibility of lexemes within the sentence, and that formulate further restrictions about the selection of lexical units. We shall see that particularly in poetic texts these 'last' semantical rules can be violated (metaphorization, etc.), but only if the relation with the global semantic deep-structure is respected (but even these rules can sometimes be violated, as in completely incoherent nonsense-poetry; dadaist, surrealist, etc.). We can now formulate the basic condition for the global coherence of texts in general: they must have a semantic deep-structure.

We can of course try to give different ways of formalizing the derivation of a text. Like Isenberg (1968) and others we can rewrite the initial symbol T as a set of Sentences, for the subsequent transitions of which we have to give syntactic and semantic (referential) conditions (cf. Rieser's contribution to this issue). We have tried to prove that the rules governing these transition are only one (necessary) aspect of the generation of grammatical (i.e. coherent) texts.

We could try to combine the micro- and macro-structural rules in one derivation, for example:

$$\begin{array}{l}
 (9) \quad T \quad \rightarrow (\# S \#)^n / TDS \\
 \quad \quad TDS \rightarrow TQL PROP \\
 \quad \quad \dots \\
 \quad \quad \dots \\
 \quad \quad S_1 \quad \rightarrow TQL PROP \\
 \quad \quad \dots \\
 \quad \quad \text{etc.}
 \end{array}$$

Where TDS preceded by a vertical bar means: a Text can be rewritten as n subsequent sentences if it has a Textual Deep-Structure or program as a contextual restriction that 'guides' the selection of lexical deep-structures of these sentences.

5.4 It might have become clear from our extremely speculative attempt to formalize a rather vague notion as 'coherence', which has to account for the 'thematic' unity of a whole text, that we do not yet possess the sufficient empirical data to confirm these hypothetical constructions. Perhaps we have to conclude that formalization is to be considered as

premature. Our tentative derivation has to be precised on many points (for additions and criticism of earlier models proposed cf. Ihwe, 1971).

6.0 What is, finally, the use of these speculations for the theory of literature? To answer this question we first have to make a distinction between a (formal) THEORY OF LITERARY TEXTS and a THEORY OF LITERARY COMMUNICATION in which the literary text is manifesting itself. The first theory can be considered as a theory of (textual) competence, while a theory of (literary) communication has to be considered as part of a theory of performance. A theory of (literary or other) texts only provides very general rules for the formal description of texts in a deductive derivation, and NOT for the description (interpretation, etc.) of particular texts, in which the rules may be violated (cf. van Dijk, 1971a). A theory of communication has to formulate the regularities of the relations between the text and its textual, social, psychological context and situation, because not only the formal (literary) properties of a text can make it an element of the set of texts traditionally called 'Literature' (cf. van Dijk, 1971b). The description, evaluation and interpretation of a given text as 'literary' depends on many semiotic factors and aesthetic (norm-)systems. These can be locally or temporally very different. Concrete poetry, for example, can formally be identical with non-literary texts, and conversely: non-literary texts may have typical 'literary' features. These facts prove that we have to distinguish between a (textual or literary) grammaticalness and acceptability. In a specific communication process any text can be 'accepted' as 'literary'. We have further distinguished a certain number of types in the infinite set of all possible texts of a language by means of a text-operator. Recent investigations in generative semantics — inspired by philosophy of (ordinary) language (Austin and others) — could suggest that these sentence- or text-qualifying operators be specified, as embedded 'performative' sentences as "I tell (you) ...", "I order you ...", etc., deleted by transformations (cf. Ross, 1970; Todorov, ed., 1970). This typology is purely formal, it indicates only that a certain number of rules are permitted in the derivation of these texts. Literary texts must be considered therefore as only one type among others, while narrative texts is only a type among other 'literary' types, etc.

The same textual and grammatical rules as indicated in (7) and (9) are valid in the generation of literary texts: (a) to be a text, a literary text must have a semantic deep-structure, (b) to be a (linearly coherent) text, a literary text must in principle have semantic relations between subsequent sentences, etc.

The property of having a semantic deep-structure is very complex and its full explication demands a great deal of empirical and theoretical research. Intuitively we can guess that it probably also has an important LOGICAL component. This component has several aspects:

(a) A LOGIC OF RELATIONS: a text can in theory be said to be grammatical if, and only if, some lexical items precede others, either in surface structure or in deep-structure. Lexemes denoting 'arriving' imply materially the action of departure, etc.

(b) CHRONOLOGICAL LOGIC (cf. Rescher, 1968): a specific part of this logic of relations is formed by the chronological system of a text: actions have to develop in time, etc. Of course many transformations, as in narrative texts, can be possible at the surface level (deletions, permutations — flash-back, etc.)

(c) TOPOLOGICAL LOGIC, idem for the places where actions occur

(d) MODAL LOGIC; a text taken as a whole — or one of its sequences — can be considered as 'false' (fiction, etc.) as 'believed' (myth) as 'true' (history), as 'probable' (theories, etc.).

All these logico-semantic properties (we omitted functional or predicate logic which has to account for presupposition, implication, etc.) determine the derivation of the DEEP-STRUCTURE of a text. We need of course a whole battery of TEXTUAL TRANSFORMATIONS to generate the surface structure of the text: (a) elements postulated (by means of implication) in deep-structure may be deleted in the concrete lexematized surface of the text (b) elements may undergo a permutation (logical, chronological, topological): the beginning of a text can be presented later, or even at the end (for example the 'identity' of the Actor-murderer in detective-novels); later actions can be 'predicted' in the beginning of the text, etc. (cf. Lämmert 1967²). These transformations have to account for traditional notions as *fable* and *sujet*, story and plot, etc. of which the first can be identified with the textual deep-structure and the second with the actual surface structure (cf. van Dijk, 1971b).

6.2 We have seen in the first part of this paper that most studies in 'generative poetics' are dedicated to the study of: (a) preferences for a specific type of (trans)formation rule — which is actually a problem of performance (statistic determinations), (b) deviant sentences (semi- or nonsense-strings) by explication of the different forms of violating the categorial or T-rules of the grammar, either by making 'new' rules, or simply by not applying or breaking the rules of 'normal' discourse.

The first part of these different approaches (a) does not differentiate between literary and non-literary texts, but only between different 'styles' (which can be as numerous as the number of different writers). The study of deviant sentences (which also occur in normal — mostly oral — discourse) can only be considered as typical for a subset of literary texts: (modern) poetry. Other types of literary texts (as narrative) generally are based on macro-structural operations.

We can follow the different groups of 'literary' operations on every level of the derivation of the text. MICRO-STRUCTURAL operations, i.e. those occurring within the sentence, are for example:

(a) SEMANTIC TRANSFORMATIONS: (metaphorization, personification, metonymia, etc.) — substitution of lexemes by lexemes which are ungrammatical in their context; this substitution is normally based on one or more semantic features; to give a 'correct' interpretation of metaphorical constructions we can apply Weinreich's (cf. *art. cit.*) 'construal rule' which transfers a feature from one lexeme to the lexeme that is semantically incoherent with it. (antithesis, climax, etc.) — the selection of lexemes having an opposite semantic feature (HIGH, LOW, etc.): the generation of this 'operation' is rather the result of a deep-structure rule than of a T-rule.

(b) SYNTACTIC TRANSFORMATIONS: (inversions, etc.) these 'literary' or stylistic operations are most frequently studied by linguists-concerned-with-literature. Permutations of lexemes result in various types of ungrammatical inversion, frequent in modern poetry (permutation of NP₁ VP or of VP NP₂, etc.). Deletion results in the production of 'sentences' only consisting of a nominal or (less frequent) a verbal part, often followed by an embedded sentence or a PrepP. Modern poetry frequently applies these transformations. Other syntactic operations (parallelism, repetition, etc.) must probably be considered as pre-transformational: they are the result of special — stylistic — selection restrictions for rules.

(c) PHONOLOGICAL OPERATIONS: the generation of phonological and graphic 'figures' must be seen as the result of specific (phonological) selection restrictions. Rhyme, alliteration, meter, etc.: phonemes, and thus the lexemes of which they are a part (initial, final, vocalic, consonantic, etc.), are selected on the basis of an identity relation. These rules are context-sensitive (if lexeme *x* has phoneme *y*, let lexeme *z* have the same phoneme, under such or such further conditions). A transformational aspect is reflected in the production of meter, for which not only special selection restrictions must exist, but also rules that can shift the accent of a word to another syllable or even to another word.

Not only the relations within the sentence, but also the relations between sentences can obey specific 'literary rules'. Operations like antithesis contrast, climax, etc. (cf. Isenberg, 1968) can be generated by specific semantic (context-sensitive) rules determining the selection of (partially) identical or opposite lexemes. Such rules however, like many other literary and stylistic rules, can have a negative character: they can cancel the application of obligatory transformation-rules:

(a) the repeated use of a noun-phrase, instead of pronouns, adverbs, etc. (anti-pronominalisation rule, resulting in repetition)

(b) the omission of generating (by formation-rule or T-rule) and selecting conjunctions that manifest semantic relations between subsequent sentences (*but, because, and*) or by generating conjunctions that do not manifest the real semantic relation between sentences (the use of *and* at the beginning of an independent sentence, the use of *because* without giving a explanatory clause, etc.

Many modern texts, finally, do not respect the rule of linear coherence. In such cases there is no identifiable semantic relation between two or more subsequent sentences. This violation of one of the basic conditions of text-coherence is often compensated on the level of the whole text: the semantic deep-structures of mutually incoherent sentences can reveal a coherent textual deep-structure, especially in modern poetry (cf. Van Dijk, 1970b; for a synthetic treatment of literary rules, cf. Van Dijk, 1971b).

6.3 It is necessary now to assign a theoretical status to all these rules that determined the generation of literary texts. Different view-points have been mentioned in this paper:

(a) 'literary' rules (if they are rules) are part of performance: this implies that they are only specific uses of the rules of grammar and specific (coded?) violations of them (under socio-cultural conditions).

(b) these rules are part of a specific grammar of 'poetic competence' (P) which (only?) contains these specific rules. This grammar is based on (intersects with) the grammar of 'normal' language (G) but is not a part of it. The additional rules formulated in it either replace or transform the rules of non-literary discourse or simply cause their elimination.

There are two possibilities here:

(i) the grammar P can have the form of a sentence-grammar, and can therefor be considered as a simple extension of the Chomskyan model.

(ii) it can have the form of a textual grammar of which it only forms a subpart that generates a specific type of texts.

This last possibility seems most adequate at the moment. It accounts not only for deviant sentences — which in isolation need not to be literary at all —, but also for structures of whole texts or parts of it, such as different narrative structures.

The (optional) application of these specific rules which underly the different 'literary' or stylistic operations, *can*, but need not, result in a 'literary' response from the reader (interpretation, evaluation, etc.) to the text. We have already argued that the presence of literary rules or their absence is neither a necessary nor a sufficient condition for a text to be perceived as 'literary'. In the performance of the whole literary (or rather textual) communication many semiotic systems (socio-psychological, esthetic, etc.) exercise their influence during the act of reading (cf. the very penetrating remarks of Roland Barthes in his last book *S/Z*, 1970).

7. CONCLUSIONS

It has become clear that a theory of a generative-transformational grammar of literary texts is a very ambitious enterprise, and we feel obliged therefore to repeat in these Conclusions its limitations and actual possibilities:

(a) it doesn't directly account for the very intricate factors of literary communication: socio-cultural and esthetic norms and change of norms, the interpretation of individual texts and of the relations between the text and its context, etc.

(b) it must in principle be based on a general theory of texts. Such a theory does not yet exist, and only very recently there are some very hypothetical attempts to formulate some of its most simple rules; further, this theory of texts can only be elaborated on the basis of a sound theory of semantic representations. We only possess some knowledge about the lexical character of such representations (cf. Agricola, 1969).

It is not necessary, however, for the theorist of literature to wait for a full-fledged semantic theory of texts. His theoretical and empirical investigation can go on even without the precise formulations of the 'normal' rules governing the construction of texts.

Instead of studying the properties of all possible literary texts, the investigation might profit from a limitation to certain TYPES of literary texts: modern poetry, psychological novel, classical drama, etc. The different literary grammars constructed to account for the texts that belong to that types can perhaps in a later stage of our knowledge be integrated in an 'ideal' universal theory of (literary) texts. Such sub-grammars however do not yet exist. Only the structural analysis of traditional tales has yielded results that can be considered as the first details of an adequate theory of narrative structure. The aims of such a methodologically adequate (i.e. coherent, explicit and simple) theory are not easy to be realized in the near future. But this goal, however remote, must be striven for, in order to be able to give a sound basis to the study of the relations between text and context in the whole process of textual (semiotic, linguistic, esthetic) communication. The functions of literary texts and of texts in general in society, as one of the fundamental aims of the whole inquiry, can only then be studied in a satisfactory manner.

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