

The process of creation of a work of literature and its reception¹

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Translated by Patrick Corness

In contemporary literary theory a trend to *eidocentrism* has become firmly established, that is to say interest focuses on analysis of the work *per se*; issues related to the creation of a work of literature on the one hand and to the psychology of its perception on the other hand are set aside. Several decades ago this was a healthy counter-balance to dilettantish attempts at psychological, even psychiatric, assessment of authors' individual make-up and of its reflection in their writing. Indeed, given the then prevailing state of enquiry, it was an essential counter-balance. This trend was also a foil to equally amateurish considerations regarding the 'feelings' and 'moods' the work 'evoked' in readers, seen once again from the standpoint of the psychology of their personal emotions.

The latter approach to art was most consistently rejected by all methodologies proposing to adopt a structuralist approach to literature – the Prague School as well as the American 'New Criticism' or, most recently, semiotics. Nowadays, however, the discrepancy between the undoubted advance in the analysis of literary texts and the abandonment of any investigation of 'what preceded the text' or 'what consequences follow from it' begins to raise doubts as to whether such a narrowing of research interest flows from the method as such or whether it is merely a limitation adopted by its adherents.² In my view, it was a case of voluntary acceptance of a limitation to static literary facts in their own right and of a lack of interest in transcending the boundaries of the static system in order to pursue the dynamics of the creative process and the dynamics of reception. Today, methodological developments in structural analysis at least permit a step 'prior to the work' and a step 'beyond the work' to be taken, leading to the discovery of the dynamics of the literary process.

The theoretical issue now facing us concerns the methods that can be applied in order to formalise pragmatic meaning, understood as defined, for example, by Charles Morris (1939/40: 144-145):

Esthetic pragmatics. Under this field fall problems connected with the relation of esthetic signs to their creators and interpreters, i.e. all the biological, psychological and sociological factors involved in the functioning of esthetic signs. The previous discussion of esthetic perception belongs here; so would a consideration of the process of esthetic creation, or an analysis of the similarities and differences between esthetic creation and re-creation ("appreciation"), or an investigation of the degree and range of communication achieved through various esthetic signs.

Many of the problems in this field center around the question as to the function which art performs for the individual and for society.³

Our premise will be inductive and quite simple; I will attempt to illustrate the structure of the process of the creation of a literary work and the structure of the creation of its concrete form. Let us begin with the simplest case: the process of the creation of a translation.

¹ This translation is made from an abridged version of the chapter entitled *Geneze a recepcje literárního díla* in Levý (1971). In Section 1: *The Creation of a Translation*, some examples and certain modifications have been adopted from a shorter version of the chapter entitled *Translation as a decision process*, which Levý wrote in English (Levý 1967). 'Creation' is adopted as the equivalent of Levý's 'geneze' (genesis) – a neutral concept in terms of non/creative processes. Omissions from Levý's original text, as well as Levý's own omissions within quotations, are marked as [...]. (Translator's note)

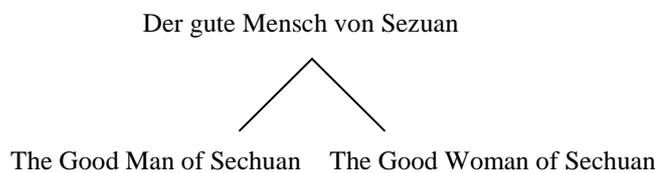
² The most recent investigations into the psychology of literary authorship have been undertaken in the USSR, for example, by B. Meilakh, A.G. Kovalev et al. However, no significantly new methodological premises have been formulated. Of greater significance is A.S. Vygotskii's *Psikhologičeskaja iskusstva* (*The Psychology of Art*), an older work: its publication was delayed until 1965.

1. The Creation of a Translation

Up till now, our thinking on translation has intuitively rested on the empirical knowledge that translating is a decision-making process (Entscheidungsprozess); previously, however, we have not been bold enough to spell it out fully or, most importantly, to take advantage of this knowledge to lend greater precision to our work on translation theory.

From a teleological point of view, that is to say in terms of its goal, translation is a communication process; the objective of translation is to impart information. In pragmatic terms, the work of the translator is a continuous decision-making process, a series of consecutive situations – moves, as in a game – the translator is obliged in each case to make a selection from a certain number of alternatives, which are as a rule fairly precisely definable.⁴

A trivial example will illustrate what one such move, one such decision, involves. Suppose an English translator is translating Brecht's play *Der gute Mensch von Sezuan*. The title of the play immediately requires a choice to be made between two alternatives:



The components involved in the move are as follows:

The Situation. The German expression *der Mensch* does not have an equally generalised English equivalent (leaving aside *person*, which belongs to a different stylistic category), but there are two words which jointly cover its semantic range: *man* and *woman*. This means that the following factors are involved in the decision-making:

- a) *instruction I* – it is necessary to search for an equivalent English word carrying the meaning of *Mensch*, i.e. the class of all beings which are designated as 'homo sapiens' and which are also stylistically neutral;
- b) the set of possible alternatives, which we will designate as the *paradigm*; in the present case it contains two members: *man*, *woman*;
- c) *instruction II*, determining which of the two alternatives to select; this flows from the context, in the present case from the wider context contained within the play, that is to say the macro-context. The two alternatives are not mutually equivalent; the context determines which is correct, so the selection is not random, but contextually determined.

Every issue of interpretation involves this sort of decision-making. It is a question of selecting from the range of possible meanings of words and motifs and the various conceptions of a character, of style and of the

⁴ The primary decision, of course, is the choice of a work to be translated. Generally speaking, translation theory disregards this, but a highly complex strategy is involved here, the rules of which are controlled mainly by publishers, and it is a topic that should be looked into by sociologists of literature.

author's philosophical viewpoint. The more clear-cut the situation, that is to say: the more specific the meaning of a word itself or the less ambiguous the context, the narrower the range of choice and the easier the decision.

The selection of one of the available alternatives pre-determines the translator's choice in respect of various further 'moves', from the choice of the grammatical forms of verbs to the conception of a dramatic character, and, of course, the nature of an entire theatrical production. This is because the context has been created for a number of further choices, since the translation process has the structure of what is known as a *game with perfect information*, that is to say a game in which each successive decision results from the knowledge and the situation created by previous decisions, like chess and unlike card games. By selecting the first or the second interpretation, the translator decides on one of two possible 'games'.

Our inductive description corresponds to the fact that the result of the first move in a perfect-information game with n moves is a perfect-information game with $n - 1$ moves, so that the first move can be considered as a choice of one of a given collection of perfect-information games with $n - 1$ moves. (Blackwell & Girshick 1954, 18)

This is shown in the following diagram, where unbroken lines represent possible decisions and dotted lines represent alternatives which have been eliminated by the first move:

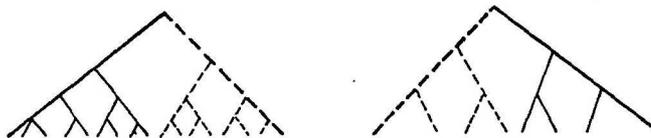


Fig. 1

For the sake of simplicity, the decisions are represented as binary, though the actual range of choice is from $n - 1$ members.

The decision-making situation and the translator's choice therefore have a particular significance, measurable in terms of the number of further decisions pre-determined by a given choice. From this point of view the elements of a literary text are hierarchically categorised as more important or less important, and any divergent choices made by the translator are also categorised as more serious or less serious. One possible approach to translation theory is to investigate how many further choices are dependent on particular decisions made by the translator and therefore which are the primary decisions that broadly determine the translator's interpretation of the text.

In translation, a finite number of moves, possibly very numerous, is involved, and the set of these moves constitutes a 'game' with a finite number of moves. The outcome of two different 'games', e.g. the series of decisions resulting from the first interpretation of Brecht's title and the series of decisions resulting from the second interpretation, is two different *translation variants* of the text. The difference between them is measurable in terms of the number of different decisions made.

It is justifiable to treat translation as a decision-making process for the simple reason that this corresponds to empirical knowledge – practical experience. Given that it is a decision-making process, it is possible to describe it accurately by applying the formal apparatus of *games theory and statistical decision-making*. I do not

intend to undertake a rigorous formalisation here, but rather to draw attention to certain noetic premises based on this approach; the respective components of the decision-making process will now be discussed in greater detail.

As mentioned above, the translator selects at each move from the available alternatives. If an English translator has to render the German word 'Bursche', a group of more or less synonymous expressions is available: boy, fellow, chap, youngster, lad, guy etc. This is the translator's paradigm, that is to say the class of elements complying with a certain instruction, which in this case is a semantic one: 'a young man'. The paradigm is circumscribed and defined by this instruction, which will be denoted as a *definition instruction*. The definition instruction gives form to the paradigm and a paradigm represents the content of the instruction. A paradigm cannot of course be considered a set of equivalent elements but a set ordered according to a variety of criteria (e.g. 'shades of meaning', 'stylistic levels' etc.), as otherwise no choice would be possible.

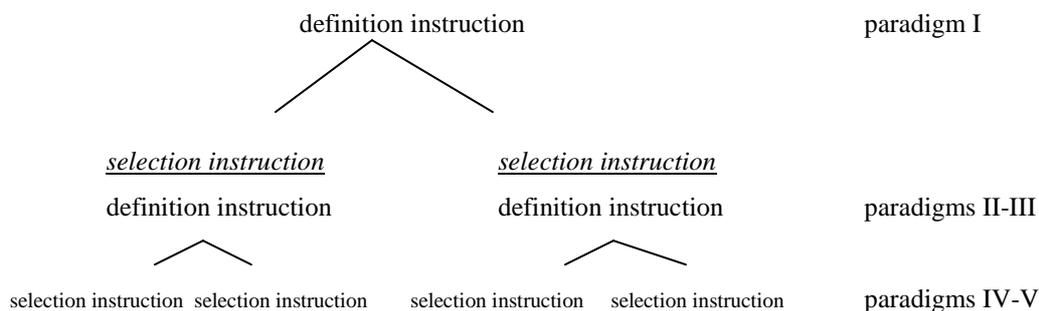
So far, we have considered the paradigm of the solutions at the translator's disposal and the instruction by which it is circumscribed. Now we will look at instructions which form the basis for selection from the set of alternatives; we will designate them *selection instructions*. Definition instructions can be of various types (semantic, formal etc.) and there are also various types of selection instructions; a specific choice is made, as a rule, on the basis of the full set of selection instructions. The most significant of them are a) context (objective instructions), b) structure of the translator's linguistic memory (subjective instructions), c) aesthetic norm (inter-subjective instruction). The topics of context and aesthetic norm will be discussed later; for now, only brief reference will be made to subjective instructions. Subjective paradigms, and their internal ordering according to subjective instructions of a lower order, are taken into account in decision-making processes.

The most important subjective factor is *the structure of the translator's linguistic memory*. If a Czech translator, for example, has to render the English word *rattle*, there are a number of words available to denote various kinds of loud noise, i.e. *bušení* (*pounding, thumping*), *hukot* (*throb, hum, howl, roar*), *hřmot* (*din, racket, roar, rumble*), *rámus* (*din, racket, roar, noise*), *rachot* (*rumble, boom, bellow, roar*), *hlomoz* (*din, row, racket, rattle*). Experiments with translators have shown that, when offered a group of near-synonyms, they exhibit a natural tendency to select from it the most generalised term, the least specific word.⁵ This is why poor style in translation is so colourless, general and vague, because words which are semantically the most generalised are usually the most frequently occurring in the language, and in our memory groups of near-synonyms are evidently stored according to their frequency, so that the most common vocabulary comes to mind the most readily. It is evidently also the case that the order of words in a subjective paradigm (in the memory) is determined even by their greater or lesser semantic content. A good translator therefore goes deeper than the first, second or third level of the lexicon, selecting, as far as possible, words which contain all the semantic attributes of the source text. However, my experiments have shown that words expressing intensity (e.g. large/great) usually come to mind in order of greatest intensity and that therefore a different memory structure applies, or different selection tactics. In order to form an accurate view of the psychology of the translation process, we need to know in detail the structure of the linguistic memory and its operational principles; this means that we need to know how words are stored in the memory and what the principles are on which choices are made by the translator.

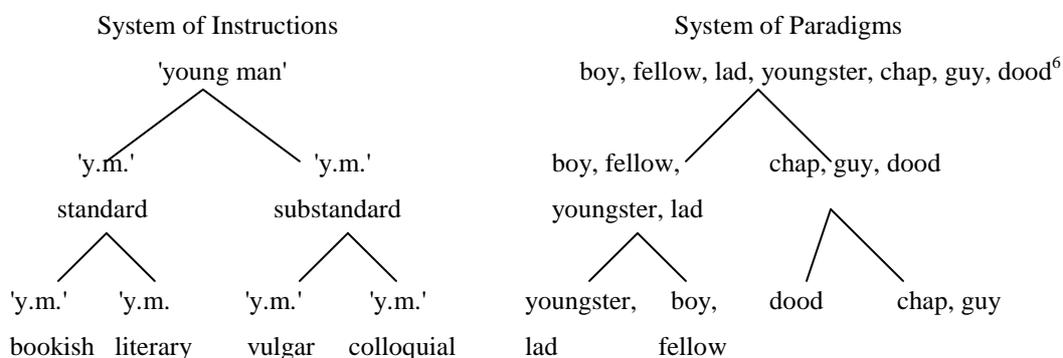
Between definition and selection instructions there is a relationship of inclusion; i.e. between a set and a subset, a system and a subsystem, a category and its member. From a set of alternatives circumscribed by a

⁵ Cf. Levý (1963, 91n.).

definition instruction a selection instruction extracts a subset, for which it now becomes a definition instruction, and so on, until a single-member paradigm is reached:

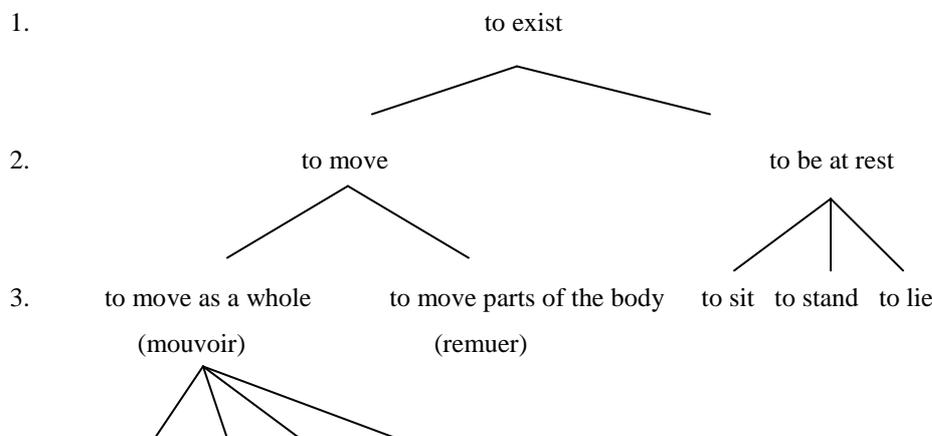


A similarly structured system of paradigms corresponds to the system of instructions:



The choice of a lexical unit is governed by such a system of conscious or unconscious instructions, so that the final expression which appears in the text (known as the terminal symbol) could be analysed in order to determine what system of instructions led to its selection, that is to determine the pattern of its creation (its generative pattern).

Alternatively, the interpretation of the meaning of a word can be thought of as a multi-stage decision-making process, proceeding from a general meaning to progressively more specialised meanings,⁷ for example:



⁶ The word 'dood' is proposed here in place of Levý's obscure expression 'lark'. (Translator's note)

⁷ Certain contemporary theories of semantics are based on this principle, e.g. J. Katz, J.A. Fodor (1963).

- 4 to walk to ride to drive to fly
5. to drive to be driven
-

The translator sometimes makes fewer or more decisions than the author of the original, e.g. in this translation from English into Russian:

His Lordship jumps into a cab and goes to the railroad.

Лорд Кью юркнул в извозчичью карету и приказал везти себя на железную дорогу.⁸

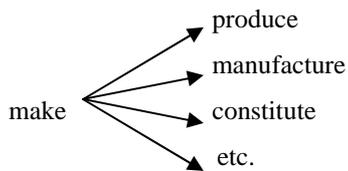
Here, the translator has made two additional decisions, one of which is necessary because Russian does not have a verb with as broad a meaning as the English 'to go' and it must therefore select from идти (idti: walk), ехать (iekhat': ride, drive) and лететь (letet': fly). The second additional decision was not essential, because there was no need to decide between ехать (iekhat': ride, drive) and приказать везти (prikazat' vezti: order to be driven).

Decisions can therefore be necessary or unnecessary, and also motivated or unmotivated. A decision is motivated if it is required by the context (linguistic or extra-linguistic). In the above case, both additional decisions are motivated by the word *cab*; if *car* had been used instead of *cab*, the second decision would have been unmotivated. Four cases are therefore possible:

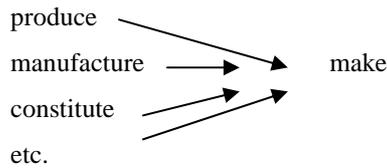
- a) necessary, motivated additional decisions
- b) necessary, unmotivated additional decisions; the scope for error is at its greatest here and its likelihood is reduced by searching for motivation in an ever broader context, including the entire book, the complete works of the author, the entire set of literary conventions of the period etc.
- c) unnecessary, motivated additional decisions
- d) unnecessary, unmotivated additional decisions; here we are in the sphere of arbitrary translation and embellishment

As mentioned above, an instruction is a form of paradigm and a paradigm is the content of an instruction. It must be added that the structure of a paradigm – i.e. its extent and ordering – depends on the material from which it is constituted, in this case (involving the selection of linguistic resources) on particular natural languages. It is a well-known fact that nuances within a given semantic field and their lexical representation are not the same in all languages. The time span denoted by the Russian noun вечер (vecher) is divided in German into two categories: Nachmittag and Abend. Unless the choice is determined in a given case by the context, some German translators will render the time concept вечер (vecher) as Abend; others will render it as Nachmittag. The broader the segmentation of a given semantic field in the source language by comparison with the target language, the greater *the range of translation variants* that will be found. The translation of a word from Basic English into Standard English can be represented by a series of diverging arrows:

⁸ The example is taken from Retsker (1950, 176-7).



By contrast, the narrower the segmentation in the source language in relation to the target language, the lesser will be the range of translation variants; translation from Standard English into Basic English can be represented in many instances by converging arrows:

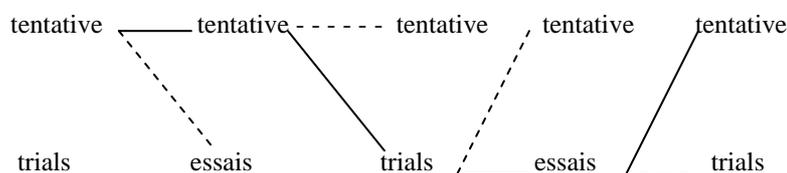


These divergent or convergent tendencies in decision-making in respect of particular lexical units (in respect of higher-level units also, naturally) continue to apply throughout the translation process and to determine the relationship between the source text and the target text. This decision-making process can be very clearly traced if the same text is translated several times from language A into language B and back into language A. Such an experiment in back-translation was carried out by B. van der Pol (1956, 97n), who had an English philosophical text translated into French and then had the resulting translation rendered back into English, and so on, so that the complete process was E – F – E – F – E . Tracing the treatment of certain lexical units, van der Pol found that in some cases the translators continually sought new solutions, e.g.: daylight – lumière franche – open light – flamme libre – unconfined flame.

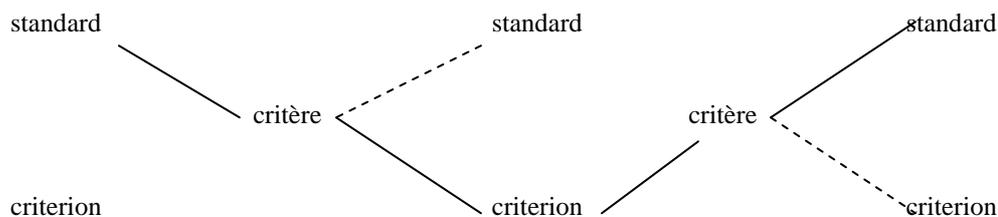
It is probable that the instruction 'daylight' defines a wider group than the three English expressions and the two French expressions and that a repetition of the experiment would produce further solutions.

In the case of other words, despite the limited number of decisions, the same two or three choices were constantly repeated; evidently then, the paradigms of alternatives were limited (by the lexical possibilities of the language or by the lexical resourcefulness of the translators): tentative – tentative – trials – essais – tentative.

So the decision-making process had the following outlines in this case:

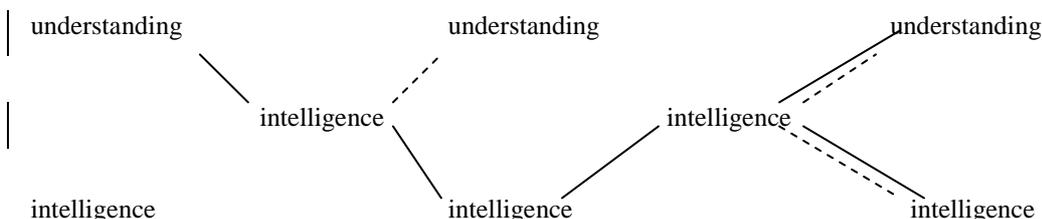


Sometimes, in the case of translation from English into French, a convergent tendency resulted, and then a re-divergence on back translation into English occurred:



Similarly also: experiment----- expérience ----- experience ----- expérience ----- experiments.

Finally, it sometimes occurred that from a broader paradigm of English expressions, beginning with the first back-translation from French, the same expression was consistently selected, different from the original English and similar to the French:



Similarly: wonderful -- incroyable -- unbelievable -- incroyable -- unbelievable; cause -- raison -- reason -- raison -- reason.

In these cases, evidently because the English and French paradigms contained corresponding pairs of expressions that were morphologically or even phonetically similar, a selection instruction was formed which influenced further decisions. In such cases, the creation-reception scheme acquires the form of a closed circle, though it may be de-stabilised at any time.

The most typical phenomenon, however, is a gradual shifting on the scale of near-synonyms which results from the fact that a certain segment of the semantic paradigm of the source word A is realised in the target language as word B, having a different semantic range, and a certain segment of it – often external to the overlap of the semantic paradigms of A and B – is realised as word C, again having a different semantic range etc. This is essentially a general model of repeated interpretation and creation, whether in respect of reading, translation or perhaps theatrical production, or even the dissemination of rumours by word of mouth. It is therefore a functional model of pragmatic communication.

So far, we have concerned ourselves with the making of choices of individual words, focusing on translation, since a translation is for us the simplest case of creative activity. It is necessary to demonstrate whether, and in what sense, decision-making processes become more complex if higher-level units are involved, perhaps segments of text.

Divergence or convergence of translation variants will certainly figure in translation between more developed and less developed languages, e.g. in translations of the bible into the less complex languages of certain African or American tribes, and vice versa in the translation of works written in these languages into European languages.

It would be possible to show how radically French, English and German versions of the writings of developing nations differ. The semantic structure of literary texts with different systems of poetics also admits a

greater or lesser range of translation variants. Most cultured nations possess several parallel translations of the chief works of Shakespeare, differing in their conception, and there is an awareness of a need for such a variety of interpretations in translation.

In the case of Molière, on the other hand, the range of such interpretations is by no means so great. The reason for this is evidently the fact that the entire structure of Shakespeare's drama is more ambiguous and that the characters are open to different interpretations, whereas Molière's drama is more clear-cut: Molière's Harpagon incorporates only one segment of the semantic range of Shakespeare's Shylock and Molière's semantic pattern is made up of narrower components.

From this perspective, we consider it a natural phenomenon that increasing cultural differentiation is accompanied by an increasing awareness of the need for several parallel translations of literary classics.

The semantic segmentation of a translated message and the semantic instructions that flow from it are therefore not derived from a linguistic code alone, but also from the code of a given type of utterance. The expression 'gooseberry' must be translated in prose by its precise equivalents (Stachelbeere, groseille, angrešt, крыжовник (kryzhovnik)); in poetry its translation as 'redcurrant' or 'raspberry' may also be a valid equivalent, e.g. in this Czech translation of lines from S. Shchipachev's Russian poem *По дороге в совхоз (Po doroge v sovkhov: On the way to the collective farm)*, 1939:

Проходит мимо яблонь, (Prokhodit mimo iablon', : Passes by the apple trees,)

Смородины густой (Smorodiny gustoi : The dense redcurrant bush)

Už přešli říčku, sady (They've already passed the rivulet, the gardens)

i keře **angreštu**. (and the gooseberry bushes.)

In other words, in prose we are dealing with two groups of paradigms, consisting of one member each, standing in a relation of a strict one-to-one correspondence, whereas in verse they coalesce into two equivalent paradigms of several members each:

Prose

redcurrant	↔	смородина (smorodina)	↔	rybíz
gooseberry	↔	крыжовник (kryzhovnik)	↔	angrešt
raspberry	↔	малина (malina)	↔	malina

Verse

redcurrant	↔	смородина (smorodina)	↔	rybíz
gooseberry		крыжовник (kryzhovnik)		angrešt
raspberry		малина (malina)		malina

In poetry, the syntagms 'He departed', 'And off he went', 'Lo, see him going off' etc. may be considered to be equivalent; a line of verse of ten syllables may therefore be translated in more ways than a prose segment of

the same extent; cf. the seven versions of a line from Shakespeare's *Julius Caesar*⁹ found in the manuscripts of A.W. von Schlegel (Benays 1872, 239) and an eighth by L. Tieck:

1. Dein Leben hat von Ehrgefühl gezeugt
2. Dein Leben zeugte stets von Ehrgefühl
3. Dein Leben hat gezeigt, du hältst auf Ehre
4. Dein Leben zeugt von einem Funken Ehre
5. Ein Sinn für Ehre spricht aus deinem Leben
6. Du hegstest einen Funken Ehre stets
7. Du hegstest immer einen Funken Ehre
8. In deinem Leben war ein Funken Ehre

They are the result of the fact that the system of semantic instructions in poetry is as a rule less diffuse than in prose; put another way, the semantics of poetry tends to the formation of broader, more generalised segments.

So far, we have concerned ourselves with the making of choices of individual words, focusing on translation, since a translation is for us the simplest case of creative activity. It is necessary to demonstrate whether, and in what sense, decision-making processes become more complex if higher-level units, or syntagms, are involved.

Signs on a higher level are defined by complex instructions; as soon as an instruction itself becomes a structure it is capable of various interpretations, e.g. synthetic or analytic.

The Russian proverb *Без труда не вынешь рыбку из пруда* (*Bez truda ne vynesht' rybki iz pruda: Without effort you can't get a fish out of a pond*) can be considered a self-contained unit, and then the instruction is 'find a proverb with the meaning "without work there is no benefit"', so it can be translated by one of the members of the group:

no pain no gain
etc.

Otherwise, this global instruction can be broken down into basic instructions – and then the translation will be derived from a whole set of instructions and their corresponding paradigms:

без труда (bez truda) ----	---- without work ---- unless you work ---- without effort ---- etc.
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НЕ ВЫНЕСЬ (ne vynesht') ----	---- you cannot take out ---- you will not take out ---- etc.
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⁹ i.e. Act V Scene 5 – *Brutus (to Strato)*: . . . Thy life hath had some smatch of honour in it. (Translator's note)

рыбки (rybki) ---- |---- a fish
 |---- etc.

из пруда (iz pruda) ---- |---- from the stream
 |---- etc.

Therefore, the more extensive the segment, the more translation variants are possible; in theory the range of choice expands exponentially. If the lexical unit A can be translated by units A1 and A2, and unit B by units B1 and B2, the phrase AB can in theory be translated in eight different ways:

A1 B1 B1 A1
 A1 B2 B1 A2
 A2 B1 B2 A1
 A2 B2 B2 A2

Therefore, the more extensive the segment of the utterance, the wider the range of translation variants (similarly, the number of possible equivalents increases in the case of elements covering a wider semantic field).

The translation of a proverb could be based on a single global instruction or a number of more basic instructions – depending on the level of distinction adopted. If we wished to pursue this 'syntax of instructions' further, we would have to undertake the analysis of those segments of an utterance which are defined by a combination of more generalised instructions, each of which is assigned a paradigm of more specialised instructions. Such an example is the rhyming play on words from the poem 'Das aesthetische Wiesel' by Christian Morgenstern:

Ein Wiesel
 sass auf einem Kiesel
 inmitten Bachgeriesel

The American translator Max Knight has written five translations of these lines, revealing the paradigm of possible solutions (or, more strictly speaking, a part of it):

1.
 A weasel
 perched on an easel
 within a patch of teasel

2.
 A ferret
 nibbling on a carrot
 in a garret

3.

A mink
sipping a drink
in a kitchen sink

4.

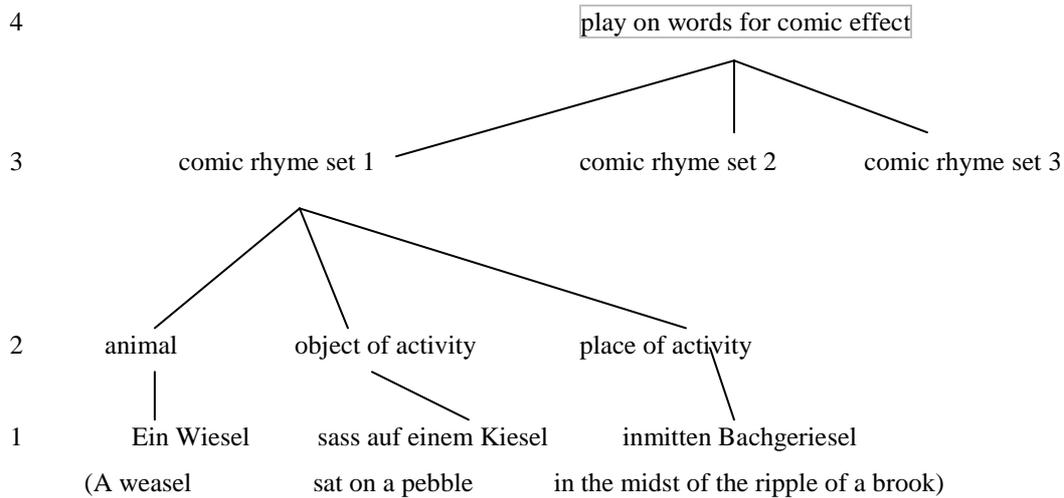
A hyena
playing a concertina
in an arena

5.

A lizard
shaking its gizzard
in a blizzard

All five variants preserve the play on words based on a rhyme scheme confronting (1) the name of an animal, (2) the object of its activity, (3) the place where this activity occurs. In all five translations it is only the abstract function of each of the three lines in the wordplay as a whole that is preserved, not the specific meaning of the respective motifs. In other words, certain motifs of Morgenstern's text have a dual semantic function: (1) an 'actual' denotational meaning, (2) a function in the pattern of the play on words as a whole. It is the latter, i.e. the definition instruction, which is preserved in the translations. This is repeated on several levels:

Level



Since translation is at the same time a process of reception (comprehension) of the original and of creation (of equivalents), it can serve as a very simple model of the structure of both processes. In translation, a dual decision-making process occurs:

- a) a selection from the semantic paradigm of a word (or motif) of the source text, i.e. a selection of one of the possible alternative meanings of the word (the process of reception);
- b) a selection from the paradigm of words which broadly correspond to this meaning in the target language, i.e. the set of near-synonyms (the process of creation).

In summary, it can be stated that the decision-making process in translation actually exhibits the structure of a language. It has its own vocabulary, i.e. a set of units which are semantically defined (in respect of their *denotata*); it has its own syntax, i.e. rules for the combination of these units – whether a unit is considered as a paradigm or an instruction. It is therefore a semiotic process and, as such, it also has a third dimension, the pragmatic one.¹⁰

At present, translation theory generally adopts a prescriptive approach, demanding optimal solutions; in practice, translation is usually a pragmatic process, i.e. the translator selects from the range of alternatives the one which promises the maximum effect for the minimum effort, intuitively adopting what is known as the *minimax* strategy.¹¹

There is no doubt, for example, that a translation of poetry – other things being equal – would be best if it preserved the same rhyming vowels as found in the original, since the expressive qualities of the vowels may have a semantic significance, however marginal. However, the cost in terms of increasing the difficulty of the task of translation is in this way is so great that the only adherents of such a principle in both theory and practice are a few extreme romantics and neo-romantics. In a less conspicuous way, translators follow the minimax strategy at every step in the decision-making process. In the translation of prose they opt for a sentence structure which broadly takes account of all the essential semantic and stylistic features, although a more perfect version might be found following a protracted period of experimentation and thought.

A realistic theory of translation must therefore account for the minimax nature of the translator's decision-making and formulate an appropriate norm. It ought to be critical of the practice of translation where an intuitively adopted strategy is inappropriate. For example, German translators who otherwise take great care to preserve the dual assonance and the complex verse patterns of Spanish Renaissance drama usually translate Molière's rhymed alexandrines in blank verse. Analysis of these translations could show that in this case the losses caused by non-observance of the rhyme scheme outweigh the gains in terms of the simplification of the translation task. By contrast, where there is a significant difference in semantic density between the source and target languages, the effort expended in preserving the number of syllables in a line of poetry is not always justified by the result.

Translators usually assess their task pessimistically, translating in such a way as to ensure that even the least favourable reaction by readers could not assess the value of their solutions below a certain minimum set by linguistic or aesthetic norms. The demands of a homogeneous style and method usually exclude the possibility of adopting a radical change of strategy within a particular translation, so translators must adopt a strategy that maximises the average value of all solutions to which this strategy commits them (or prevents any of them falling below the minimum level permitted by linguistic or aesthetic norms).

¹⁰ The basic concepts of semiotics applied here are expounded in detail by Barthes (1964a).

¹¹ For more details cf. Milnor (1964, 120n).

Sometimes it might be of benefit to adjust many details, but because this would simultaneously require undesirable changes to be made elsewhere, entailing a reduction in value, the improvement has to be abandoned.

The *minimax* nature of translators' pragmatic decision-making renders it possible to employ the apparatus of mathematical games theory for more precise comparison of the relative importance of the preferences involved. Let us consider a simple example.

Suppose a translator has to render the English construction 'not a little embarrassed' into French. For the sake of simplicity, let us assume that there are only two possibilities:

- (a) pas peu embarrassé
- (b) très embarrassé

These are the outcomes of decision (a):

- s – the stylistic trait (understatement) is preserved,
- r – the danger arises that this construction will be seen by readers as an 'anglicism'.

These are the outcomes of decision (b):

- s – the stylistic trait is not preserved,
- r – there is no danger of the construction being seen as an anglicism.

The possibilities arising under premise r derive from the linguistic expectations of the reader; some of them will feel that the norms of their language (l) have not been adhered to, while the remainder will not have this perception. The overall outcome of both decisions with a wider group of readers may be expressed in the following pay-off matrix:

	non-purists	purists
(a) pas peu embarrassé	v1: style preserved + purity of l preserved	v2: style preserved + purity of l not preserved
(b) très embarrassé	v3: style not preserved + purity of l preserved	v3: style not preserved + purity of l preserved

The three possible outcomes are:

- $v1 = s + l$ (style preserved + purity of language preserved)
- $v2 = s + l^-$ (style preserved + purity of language not preserved)
- $v3 = s^- + l$ (style not preserved + purity of language preserved)

The categories of readers of the translated text are represented in a certain proportion, e.g. 25% non-purists and 75% purists. The quantitative interpretation of the matrix is then as follows:

25%	75%
a. $s + l$	$s + l$
b. $\bar{s} + l$	$\bar{s} + l$

If decision (b) is made, the value s does not occur at all (0%), nor does the negative value \bar{l} . This decision is evidence that the translator valued the preservation of the purity of the language higher than the preservation of style ($l > s$).

If decision (a) is made, value s occurs with 100% of readers, l with 25% and \bar{l} with 75%. This means that for the sake of preserving the value s with 100% of readers the translator is willing to risk the loss of l with 75%, i.e. to accept that l will apply only for 25% of readers. The relative utility is $s : l \leq 1:4$.

The degree of importance a translator ascribes to a given stylistic feature is a relative value, measurable only in relation to other values, in particular to the preservation of a linguistic norm. Its relative value can be assessed by asking translators what percentage of negative perceptions of this feature, i.e. of \bar{l} responses, they are prepared to risk. Its relative importance can also be assessed on the basis of decisions made, because when translators assess a situation they intuitively weigh up the probability of readers reacting in particular ways.

Such a formalisation could be a starting point for the investigation of the following issues, for example: (1) The function (level of importance) of a given stylistic principle and its preservation in various types of literature (e.g. technical, folklore, prose, poetry, drama etc.); (2) The relative importance of linguistic norms and style in different types of literature; (3) The readers' responses that translators anticipated at different periods in respect of different types of literature (in the case of contemporary translators, their anticipations could be compared empirically with the actual responses of their readership).

The above example is very simple and its explanatory power is limited, because there is no analysis of factors governing French readers' perception of 'understatement' or anglicisms'. These factors may be very simple, and only a single factor may be involved. For example, whether modern readers recognise the metric structure of Sapphic verse or perceive it as free verse depends more or less exclusively on whether they are familiar with the conventions of classical Greek versification. The position a translator is in when deciding whether to preserve Sapphic metre can be represented by the following simple pay-off matrix:

	Readers familiar with Greek versification	Readers unfamiliar with Greek versification
Sapphic metre	understand the metre	do not understand the metre
Other metre	regret the loss of Sapphic metre	do not perceive a loss of Sapphic metre

With two types of readers and two types of decisions, four different aesthetic judgements are possible, the probability of each of them being the product of the relative frequency of the two solutions at a given period of time and of the numerical proportions of the two categories of readers. The two pairs of outcomes ('regret the loss of Sapphic metre' / 'do not perceive a loss of Sapphic metre') cannot be considered mutually antithetical; 'regret the loss of Sapphic metre' means more precisely 'regret the loss of Sapphic metre if they know the original poem is written in this form'.

Analysis of the values of individual outcomes to identify the respective determining factors is therefore the first pre-requisite for the formalisation of the pragmatic aspect of decision-making in more complex situations.

2. The Process of Creation of a Work of Literature

The process of creation of a translation as a decision-making process can be modelled quite accurately and simply, because in translation all decisions have a known purpose (in respect of the original or a segment of it); consequently, choices are made on the basis of instructions and at least the dominant instruction is known. Modelling the process of creation of the original work in this way is the most difficult, because instructions can only be identified *ex post facto* on the basis of choices that have been made, i.e. on the basis of the author's text, and the total inventory of possibilities from which the author selected when making individual choices is usually unknown. Of course, the original work also undoubtedly comes into being as a result of a series of decisions and the analysis of these decisions must be the best way to establish the formal outline of the creative process.

The creation of a literary work is a process that can be broken down into a finite series of moves, some of which are part of the author's strategy (referred to in game theory as personal moves) and some of which are random:

A game is characterized by a set of rules having a certain formal structure, governing the behavior of certain individuals or groups, the players. [...] Broadly speaking, the rules provide that the game shall consist of a finite sequence of moves in a specified order, and the nature of each move is prescribed. Moves are of two kinds, personal moves and chance moves. A personal move is a choice by one of the players of one of a specified, possibly infinite, set of alternatives; for instance, each move in chess is a personal move; [...] The actual decision made in a particular play of a game at a given personal move we shall call the choice at that move. A chance move also results in the choice of one of a specified set of alternatives; here the alternative is selected not by one of the players, but by a chance mechanism, with the probabilities with which the mechanism selects the various alternatives specified by the rules of the game. (Blackwell & Girshick 1954, 1)

The analysis of the process of creation of a literary work ought to have as its goal the discovery of the total system of intentional as well as probabilistic 'rules'. The rationalist theory of poetic creativity (cf. Poe or Mayakovsky) holds that choice at every move is personal, whereas intuitionist theory (e.g. romanticism) holds that it is random.

Such analysis, like the majority of 'new' theories, is not without its predecessors. Edgar Allan Poe (1846) quite clearly adopts this premise when discussing his writing of *The Raven*. [...] It is evident that the majority of decisions identified by Poe do not concern choices of specific words or sentences in the text, that is to say the decisions are not followed through to the terminal symbols. The most difficult task in this analysis is to determine (or exclude) the role of causality. All Poe's thinking is deterministic: the death of a beautiful woman is an essential motif because the most poetic situation arises out of the combination of beauty and sadness, the vowel *o* because it is the most sonorous, and so on. In reality many of these necessities are random; they do not arise out of the nature of things but are externally conditioned by the aesthetic norm of the day or by individual preference. It is at least equally justified to consider the vowel *a* the most sonorous; on different aesthetic principles the 'most poetic' is, on the contrary, beauty combined with joy (perhaps also ugliness combined with various qualities etc.). Poe's idea involves sequences of specific decisions embodied in a finished poem.

Whether or not the choices were made consciously (deliberately) is irrelevant; why these particular choices were made and not others from the inventory of possible alternatives is important from the standpoint of literary psychology, but for the time being we are concerned only to discover the *structure* of the decision-making process, not its causality, because if we want to investigate causality, we have to define a *relevant* causal sequence, not just any causal sequence. This is because Poe derives causality, as it were, 'from the things themselves', despite the fact that the causes are usually inherent in the poet's subject. The undeniable basis of all decisions – and it can be accounted for by literary theory – is an aesthetic norm. This is the set of instructions, not mentioned by Poe, which govern the choice from the members of a paradigm. All other causal explanations consign the motivations in decision making to an extra-literary sphere belonging to the natural sciences and which cannot be adequately investigated by the methodology of literary theory. [. . .]

Poe's exposé permits us to construct a model¹² of the creation of *The Raven*. Naturally, we are not obliged to accept that all the motifs of the poem were derived exactly as Poe states, but it is certain that they *could* have been so derived, that the process described by Poe is *one of the possible* decision-making systems leading to the text of the poem, one of the poem's *generative models*. In theory, there are many such imaginable generative models; the author's evidence renders one of them, in general terms at least, far more probable than others. For most works of literature we have no reliable points of reference enabling us to follow the creation of the text from the most general decisions to the specific choice of words; we have to rely on the text itself and we may formulate hypotheses about what decisions preceded it, hypotheses tending to go 'against the flow' of the generative process – so we can construct *recognoscative* models. Most often, materials tend to be available for the reconstruction of several final steps preceding the decision on the final form of the terminal symbol, in the form of stylistic variants.

The essential property of *variants* is that they are 'synonymous' and can be considered, on the basis of a constant, i.e. invariant, common feature (a definition instruction), as equivalent to the set of variants (i.e. the whole paradigm). Investigation of variants usually establishes the *differences* between an initial variant and a final one, deriving from this not only the direction of the adaptation but frequently also the intention. Here, to the contrary, we will initially be concerned with congruences. [. . .]

The author selects not only from a range of lexical possibilities, but also from a range of phraseological and syntactic alternatives. For example, in Čapek's translation of Apollinaire's poem 'Zone' there are several transformations of one and the same basic idea:

L'avion se pose enfin sans refermer les ailes.
Avion snáší se posléz aniž křídla složil.
(The plane eventually lands without folding its wings.)

- a nesložil křídla (and it has not folded its wings)
- aniž křídla složil (without folding its wings)
- a nemá křídla složena (and its wings are not folded)
- s křídly nesloženými (with unfolded wings)

Cases which are distinguished by more concise or pleonastic expressions may also be considered as transformations of a single idea:

¹² For a thoroughly systematic treatment of models in Czech cf. J. Klír & M. Valach (1965).

- snáší se, (se pose; lands)
- snáší se posléz, (se pose enfin; eventually lands)
- snáší se a klesá. (se pose [et descend]; lands, descending)

Here it is evident that certain elements are more relevant even within segments (they remain constant in the translation) and others are of lesser importance (they vary quite freely).

Mobility within paradigms which are semantically constant according to 'quantitative' instructions formed the basis of certain medieval versification devices, principally various types of abbreviation and amplification. It would actually be of interest to analyse medieval versification from our methodological standpoint.

When it comes to stylistic variants it is an advantage to us when they have been preserved. In a similar way, we could trace the author's decision-making process in respect of entire motifs, variations in actions, characters, composition processes, individual problems and the overall concept of a work. However, in this case we do not usually have access to a sufficiently broad range of material, since authors generally do not record these decision-making processes in writing. [. . .]

The instruction for the selection of a terminal expression from individual sets of variants is as a rule difficult to determine, as individual decisions are also component parts of entire decision-making paradigms, and only after a large number of individual choices has been assembled do we have any hope that the main paradigms corresponding to individual instructions in the author's strategy will be represented at least by several elements.

Therefore variants, whether of style or motif, permit us to trace the genetic structure of a literary text on two axes: a) a constant of a given situation, i.e. a set of binding instructions which the chosen solution must satisfy in linguistic, rhythmic and genre terms etc.; b) variable elements from which the author evidently selects according to some aesthetic instruction, because otherwise no restylisation would occur. The first set is a component of the code of the given literary work, the second is a component of its aesthetic norm. On this concept the *code* is therefore deterministic and for this reason it is a set of rules which can be formalised and which must be satisfied by a work belonging to a particular genre, enabling one to refer, for example, to a Czech sonnet or drama etc. The *aesthetic norm* is a strategy leading to a whole raft of instructions for the selection of individual stylistic, compositional and thematic solutions from the set of possible alternatives permitted by the code. In our terminology, therefore, the code is a system of definition instructions for individual paradigms and the aesthetic norm is a set of instructions for making selections within the paradigms. The task will now be to begin work on the analysis of both these systems.

A programmatic basis for the definition of the code of a literary work was presented, for example, as early as 1939 by Charles Morris (1939-40, 142-143):

Thus in any work of art (say a piece of music) there are only certain sign vehicles which are used ('primitive terms'); these are initially combined only in certain ways ('formation rules'); from certain combinations other combinations are formed, or the range of combination obtainable is at least limited in certain respects ('transformation rules', 'consequence relation', 'probability relation'); certain combinations are congruous or incongruous with other combinations ('valid', 'contravalid'). By making precise what has here been only indicated, it would be possible to develop a language in which to analyze individual works of art much as one would analyze a mathematical or scientific system; individual works of art could then be classified into larger groups in terms of their formal properties; significant comparisons could be made between the individual works or the larger groups much as mathematical and scientific systems can now be compared.

For certain types of literature, especially poetry, we are today in a position to define a code with sufficient accuracy to enable the generation of a literary text artificially by the application of rules defined in this way. [. . .]¹³

Whereas the byword of positivism was '*savoir pour prévoir*', the programme of the anti-positivist scientific phase, in which we find ourselves today, may be formulated as '*savoir pour construire*'. Structuralist tendencies in scientific disciplines investigating complex phenomena had one common thesis: they rejected positivist causality, replacing it with the concept of function, i.e. they do not attempt to discover the causes of phenomena, but to locate them in a higher entity.

The functional approach is undoubtedly more appropriate for the analysis of systems, for the simple reason that it leads to the investigation of their internal structure, not merely their external relationships (their environment). In the initial stages of structuralist research it was a weakness of the functional approach that its findings were frequently untestable and that models were often constructed which, although they did have their own 'internal logic', that is to say the relations between their elements were correctly determined, could not be verified as valid models of the phenomena concerned. The positivists did have, after all, testable empirical data. By observing that phenomenon A was always followed by phenomenon B, they formulated the genetic hypothesis that A was the cause of B and it was verified by prediction, i.e. the expectation that in the future A would continue to be followed by B. Insofar as further observation confirmed this expectation, the hypothesis could be considered proven and the '*savoir pour prévoir*' motto was upheld.

The functional approach in classical structuralism suffered from this drawback of a lack of testability in practice; it was not often possible to verify that the specification of the function of an element of the whole accurately represented the relationships existing in the observed phenomenon. An opportunity to perform this verification is provided by the *generative approach*: on the model of generative grammar, generative poetics can also break an utterance down into elements and rules for their combination in such a way as to facilitate reconstruction of the text from the identified elements by applying the generative rules. Machine translation, artificial poetry etc. are a by-product of this methodology; they represent a verification of the validity of the constructed programme. Thus positivism formulated *genetic* hypotheses and attempted to verify them, while the purpose of structuralism is to formulate and verify *generative* hypotheses.

Finally, we come to the most difficult issue, namely the question of the evaluation of a work of literature. The question is whether it is possible to perform a structural analysis of an *aesthetic norm*, breaking it down into a system of rules governing the generation of a particular type of art (the generative standpoint). If we were able to define such a system we could determine whether the work fulfilled the norm, and what that norm was (the standpoint of reception) and therefore evaluate it in terms of the norm.

Jan Mukařovský earlier proposed a basis for a systemic (semiotic) concept of an aesthetic norm. Some of his conclusions were:

We accept the teleological definition of value as the capability of something to serve for the achievement of a certain goal; [...] every evaluation involves a degree of subjectivity. The extreme instance of this is when an individual evaluates something in terms of an entirely unique goal; here the evaluation cannot be governed by any rule, as it depends entirely on the free decision of an individual [...] It is possible to speak of a genuine norm only when there are generally accepted goals in respect of which a value is held to exist independently of an individual's will and an individual's subjective decision making, in other words as a fact of what is known as the collective awareness [...] Although a

¹³ Omitted here: An account of generative rules for computer-generated verse of various metres in Czech. (Editor's note)

norm tends to be binding in nature, admitting no exceptions, it can never achieve the status of a natural law [...] It may be not only violated but, conceivably - and in practice it occurs very frequently - two or more competing norms can exist in parallel and be applied to the same specific cases, measuring the same value. (Mukařovský 1936, in Mukařovský 1966, 27-28)

We can probably proceed according to the conclusions of Mukařovský and formulate the problem of the general or unique validity of an aesthetic norm as follows:

Recipients of art evaluate a unique, specific work of art in terms of a particular norm, which they adopt at a given moment in respect of the given work; thus an aesthetic norm functions in a contemporary, unique manner in response to a contemporary, unique utterance. The aesthetic norm of a particular individual is, of course, to a certain extent a closed system; its respective components come into play when confronted by specific works, but they are stable, at least in the limited developing phase of the individual's 'taste'. This applies especially in respect of an aesthetic norm of an entire social group or period of time etc. An individual, group or temporal norm is in fact an individual, group or temporal idiolect, if we adopt the definition of an idiolect as 'the language of a single speaker' (A. Martinet), or as "speech (*parole*) which, though it is already institutionalised, is not yet ready to be radically formalised in the way that the language (*langue*) is."¹⁴

Here, incidentally, we see the usefulness of the concept of an 'idiolect', created by contemporary semiotics as a link between *parole* and *langue* but rejected by certain purist linguists. All acts of evaluation, including those based on aesthetic norms of individuals, may then be considered as particular examples of the functioning of a system of aesthetic requirements, i.e. aesthetic norms in the sense of *langue*. The structure of this semiotic system, i.e. the set of its basic elements and their possible relationships, must not of course be the subject of 'top-down' speculation; it must be discovered through the analysis of specific historic norms.

An aesthetic norm is a historical category, developing over time (like a series of particular utterances), and from such particular series of continuities it is possible to discover a system in its segmentations or classifications.

As Roland Barthes correctly notes, it is logical to begin with the segmentation of an utterance into phrases and the phrases into elements which are subsequently arranged in paradigms, but it is sometimes more convenient to start with the evident alternation of certain segments, identifying these segments as members of the same paradigm.¹⁵ This second analytical procedure is especially advantageous if by comparing individual temporal norms (idiolects) we discover the structure of an aesthetic norm as a system (a language).

In the case of basic instructions, segments of a norm, the historical development does not usually proceed from norm A to a different norm B and then to C, but from a norm to its relaxation (from A to non-A); in such cases, therefore, a binary opposition is adequate:

	classicism	romanticism
observation of the hierarchy of genres	+	-
rhythmic-syntactic parallelism	+	-
individualisation of characters	-	+

¹⁴ "L'idiolecte, c'est «le langage en tant qu'il est parlé par un seul individu» (Martinet), ou, [...] d'une parole déjà institutionnalisée, mais non encore radicalement formalisable, comme l'est la langue." (Barthes 1964a, 1475-6)

¹⁵ "Il est logique de commencer le travail par le découpage syntagmatique puisqu'en principe c'est lui qui fournit les unités que l'on doit aussi classer en paradigmes ; cependant, devant un système inconnu, il peut être plus commode de partir de quelques éléments paradigmatiques repérés empiriquement et d'étudier le système avant le syntagme ; mais, s'agissant ici d'éléments théoriques, on observera l'ordre logique, qui va du syntagme au système." (Barthes 1964a, 1500)

individualisation of settings	–	+
three dramatic unities etc.	+	–

A norm may exist in a positive (+ = accepted) or a negative form (– = negated), or it may not exist (the aesthetics of the period are indifferent towards it). In cases where aesthetic requirements cannot be successfully broken down into such binary oppositions, it is probable that the analysis has not reduced them to basic instructions.

If we accept this hypothesis, the individual requirements are part of the aesthetic norm and in the course of the historical development of the norm they are either accepted or rejected. These normemes combine to create segmental norms (syntagms) that are components of a higher-order global, composite norm. For example, the requirements to respect the boundary between comedy and tragedy, between genres, between verse forms etc. jointly form a single logical complex, together with the three classical unities.

Here we have members of a broader paradigm whose definition instruction may be taken to be a rationalistic segmentation of phenomena. The syntax of normemes operates on various levels; not only do they create hierarchical complexes within the aesthetic norm of a particular art form, but they also form structural relationships with contemporary norms in other art forms (the definition instructions are as a rule very generalised, noetic in nature).

These relationships may be represented as concurrent shifts in the aesthetic norms of two forms of reproductive art, translation and drama:¹⁶

Translation:	Drama:
Middle Ages: Translation required to inform, interpret, make important works available	Narrational tone predominant; the theatre popularised biblical stories.
Renaissance: In addition to interpretation, attention to stylistic form of the work required	Dramatic action replaces narration.
Baroque: Modernisation, localisation, stylistic adaptation	Modernity and improvisation in <i>commedia dell'arte</i>
Romanticism: Preservation of local colour, historical atmosphere and individual style	Individual dramatic performance, detailed facial expression and gesture, set design
End of 19th century: Excessive attention to detail by certain 'neo-romantics' in the name of the preservation of expressive values, atmosphere etc.	Direction of moods, archaeologically authentic décor and costumes: Meiningen Theatre etc.

The parallel developments shown above are intended merely to suggest the concurrent development of the two norms, rather than to define them closely. For the time being, therefore, I will not attempt to define aesthetic instructions on a higher plane. The impact of technical advances in set-building and theatrical management had such a significant impact on the development of drama, in particular, that it would first be necessary to research the aesthetic norms which were established by these changing technical facilities.

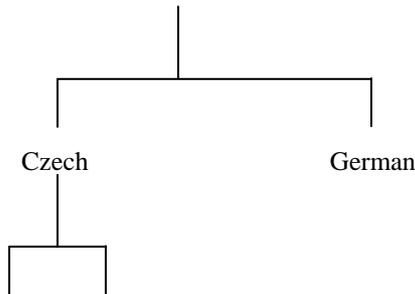
Especially vivid material for such comparative analysis would be found, on the one hand, in the case of authors who contributed in both practical and theoretical terms to both art forms (e.g. Goethe) and on the other

¹⁶ In matters of the development of theatrical production I am indebted to the works of Winds (1925) and Bundálek (1965).

hand in cases where comparisons can be made between the respective translations and theatrical productions from different historical periods of works by the same author (e.g. Shakespeare).

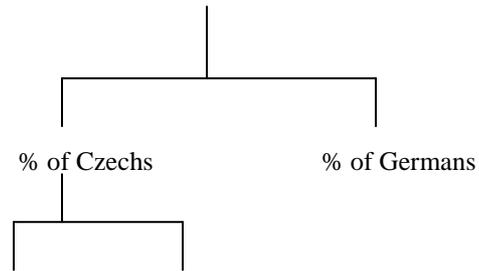
So far, discussion has focused on the individual creative process. However, an author is of course one element in a wider set, e.g. 'Czech authors in the year 1850', and the latter is again a subset of the set 'The Czech nation in the year 1850'. Similarly, poem *y* is a component of a paradigm, e.g. 'poems published in the year 1850', and the latter are again a subset of all literary works published in that year. Decisions which from the point of view of a given author are personal decisions become, from the point of view of the population of the Czech Lands, statistical decisions:

personal decision by a citizen born in 1830



author non-author

statistical decision by citizens born in 1830



% of authors % of non-authors

The sequences in this decision-making process can be followed over an extended period of time, e.g. in modern Czech literature by dividing it into 'stages' of one year or perhaps three to five years. From statistics of the most fundamental and simple decision-making processes that have been discussed, the following conclusions may be drawn: a) descriptive, indicating the relative intensity of literary activity during the period investigated and the quantitative hierarchy of genres; b) explanatory, if we compare this statistical data with data on historical factors which could have had an impact on their development.

3. The Reception of a Literary Work

Before we begin to consider the reception of a work of literature, initially of its simplest semantic segment, the sign, it will be necessary to briefly recapitulate on the relationship between the sign and the thing it denotes and perhaps between the sign and the meanings assigned to it by our interpretation.

Today, two aspects of meaning are normally distinguished – denotation and connotation. If we understand them as logical concepts, denotation is the set of objects signified by the sign, i.e. the extent of the concept, and connotation is the set of qualities, attributes and characteristics contained in the sign, i.e. the content of the concept. The relationship of the two components of the meaning to the structure of the sign as stated by Roland Barthes is in accordance with our methodological approach (it is worth noting that Barthes uses the term *expression* in approximately the same meaning as de Saussure's *signifiant* and the term *content* in approximately the same meaning as his *signifié*:

It will be remembered that any system of significations comprises a plane of expression (E) and a plane of content (C) and that the signification coincides with the relation (R) of the planes E R C. Let us now

suppose that such a system E R C becomes in its turn a mere element of a second system, which thus is more extensive than the first; two systems of significations are now involved which are inter-linked though disjointed. But this 'separation' of the two systems can occur in two entirely different ways, dependent upon the point of insertion of the first system into the second, and therefore it can result in two opposite sets.

In the first case, the first system (E R C) becomes the plane of expression, or signifier, of the second system:

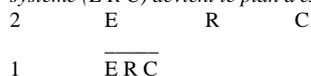


[. . .] the first system is then the plane of denotation and the second system (wider than the first) the plane of connotation. We shall therefore say that a connoted system is a system whose plane of expression is itself constituted by a signifying system.¹⁷

In our terms, then, the system of connotations of a given sign is a paradigm whose definition instruction is its denotation. The denotational meaning of a sign, e.g. 'storm', is associated with an extensive paradigm of connotational meanings (destructive storm, liberating storm etc.) based on its respective components; in a certain text, according to the context, one of the connotational meanings, e.g. the meaning of *a liberating storm*, may acquire a denotational function, i.e it may become a definition instruction for a narrower paradigm of connotational meanings.

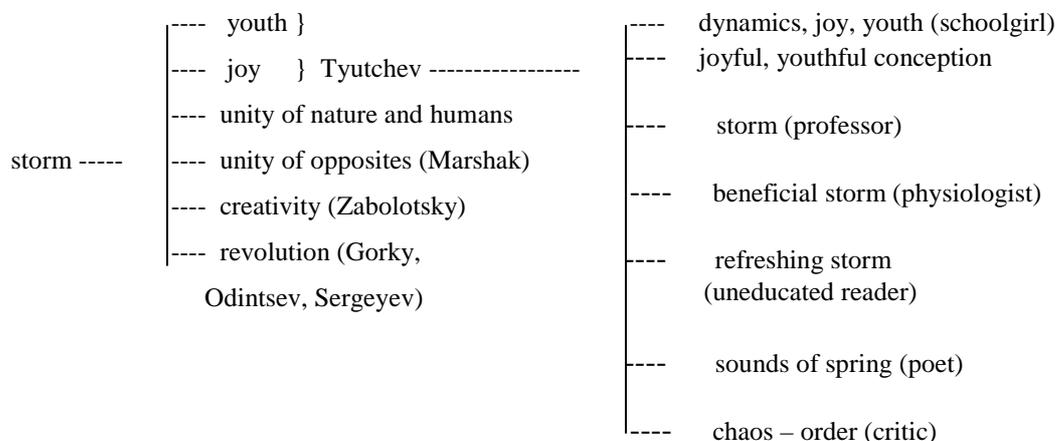
Let me give an example of this process. The Russian theoretician Iefim Etkind (1964, 16) traced a) the meaning acquired by *storm* in several poems by Russian authors – what it 'actually signifies', what its denotational meaning is in a given context; b) what connotation is associated with the fundamental meaning of Tyutchev's poem *Весенняя гроза* (*Spring Storm*) as interpreted by various readers. He concludes in respect of a) that in the examples *storm* expresses youth and joy (Tyutchev), the unity of nature and humankind, but also the idea of the unity of opposites (Marshak), creativity (Zabolotsky) and revolution (Gorky, Odintsev, Sergeyev). In respect of b): individual interpretations of one of the poems studied, Tyutchev's *Весенняя гроза* (*Spring Storm*), he found that the five respondents gave the following approximate interpretations. A nine year old girl perceives joyfulness, youth, dynamism; to an uneducated reader it 'means' only the joyful idea of a refreshing storm; a senior physiologist values the poem above all for the positive nature of the storm, the fact that the conventional concept of a 'terrible' storm is rejected; a literary critic found in the poem an opposition between a natural force and its taming by a human being, between chaos and order, between nature and a human being, nature and art; a professor of ancient history considered that the poem was a view of a storm from the standpoint of happy youth and that the ability to view it in this way, symbolised by Hebe, was a God-given gift; the poet Vsevolod Rozhdestvensky perceived above all the sounds of spring and the corresponding vocal instrumentation of the poem. The concept of a storm is therefore associated with a spectrum of potential connotational meanings; in the

¹⁷ "On se rappelle que tout système de signification comporte un plan d'expression (E) et un plan de contenu (C) et que la signification coïncide avec la relation (R) des deux plans: E R C. On supposera maintenant qu'un tel système E R C devienne à son tour le simple élément d'un second système, qui lui sera de la sorte extensif ; on aura ainsi affaire à deux systèmes de signification, imbriqués l'un dans l'autre, mais aussi décrochés l'un par rapport à l'autre. Cependant le «décrochage» des deux systèmes peut se faire de deux façons entièrement différentes, selon le point d'insertion du premier système dans le second, donnant lieu ainsi à deux ensembles opposés. Dans le premier cas, *le premier système (E R C) devient le plan d'expression ou signifiant du second système:*



[...] le premier système constitue alors le plan de *dénotation* et le second système (extensif au premier) le plan de *connotation*. On dira donc qu'un système connoté est un système dont le plan d'expression est constitué lui-même par un système de signification." (Barthès 1964a, 1517)

poems studied by Etkind some of them are realised in the light of their context and they become denotations. On the other hand, the denotational meaning of Tyutchev's poem is associated with a paradigm of connotational meanings:



The material collected by Etkind shows in concrete terms how the definition instruction (denotation) of a complete set of individual connotations is itself one element of the connotational paradigm in a higher-level system, whose denotation is the general concept *storm*. But at the same time he shows how the respective individual interpretations are linked to the complete systems of personal experience of the individual readers. If we accept Barthès's term *lexie* for the designation of individual connotative meanings, we can also find ourselves in agreement with his attempt to formalise the systems of personal experience to which the respective interpretations are linked:

[...] the same *lexie* mobilises different lexicons. What is a lexicon? It is a part of the symbolic level (of the language) that corresponds to a corpus of practices and techniques [...] each sign corresponds to a corpus of 'attitudes': tourism, the household, knowledge of art, certain of which may, clearly, be lacking at the level of an individual. A plurality of lexicons co-exists in a single individual: the number and identity of these lexicons form, as it were, the *idiolect* of each person. In respect of its connotational meaning, therefore, an image would be constituted by an architecture of signs derived from lexicons (idiolects) at varying depths, each lexicon, at whatever 'depth', remaining encoded, if -- as is now believed -- the *psyche* itself is articulated like a language. Moreover, the deeper one 'descends' into the profound psyche of an individual, the more rarified and the more easily classifiable the signs become.¹⁸

On the other hand, the denotation itself determines the extent of the connotational paradigm, as Charles Morris (1939/40, 140) correctly stated:

There are various degrees of such generality, and abstract art is simply an extreme case of high generality of semantical reference, the generality of the component iconic signs and the total iconic sign being so high that their range of possible *denotata* is very large.

¹⁸ "[...] une même *lexie* mobilise des lexiques différents. Qu'est-ce qu'un lexique? C'est une portion du plan symbolique (du langage) qui correspond à un corps de pratiques et de techniques [...] chaque signe correspond à un corps d'«attitudes»: le tourisme, le ménage, la connaissance de l'art, dont certaines peuvent évidemment manquer au niveau d'un individu. Il y a une pluralité et une coexistence des lexiques dans un même homme : le nombre et l'identité de ces lexiques forment en quelque sorte l'*idiolecte* de chacun. L'image, dans sa connotation, serait ainsi constituée par une architecture de signes tirés d'une profondeur variable de lexiques (d'idiolectes), chaque lexique, si «profond» soit-il, restant codé, si, comme on le pense maintenant, la *psyché* elle-même est articulée comme un langage; mieux encore : plus on «descend» dans la profondeur psychique d'un individu, plus les signes se raréfient et deviennent classables [...]" (Barthès 1964b, 1426)

Insofar as the denotation of abstract art is weak (we recognise few objects in a picture and we derive few ideas and thoughts from a poem) the range of connotations is rich.

Etkind's findings give some idea at least as to how a paradigm of connotations is formed from a definition instruction of a denotational meaning, and how in a particular utterance, influenced by the context and by a personal idiolect, some of the connotations become denotations defining in turn a further paradigm of connotations, the respective elements of which are realised by individual readers.

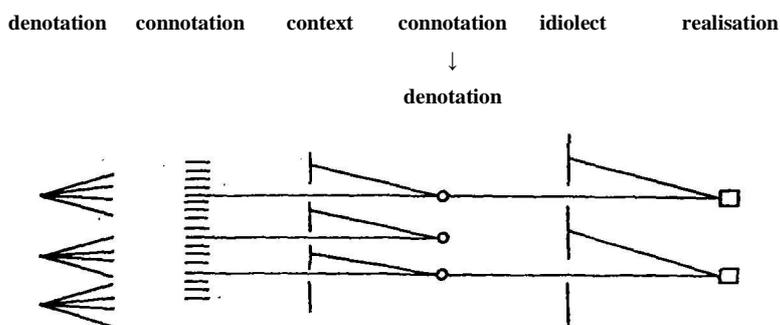


Fig. 2

The entire range of a connotational paradigm can be discovered if a sufficiently large number of individual interpretations is available, rendering it probable that all the main elements are realised within it. If the paradigm is established in this way, we can attempt to explain individual interpretations, not causally but structurally, i.e. tracing the path from individual realisation by readers via connotations specified by the context (i.e. those functioning in the given text as denotations) through to the original denotation. [. . .]¹⁹

There are still difficulties with the formalisation of the *context*; one reason for this is probably that it is a category in which there is an overlap of syntactic, semantic and pragmatic data. The syntactic data means the combination of lexical units to form phrases and higher-level entities; but the actual meaning of a lexical unit is to a considerable extent determined by its position in the higher-level entities created by the syntactic arrangements, and finally the wider context does also include, of course, the pragmatic functions of the utterance. I will therefore limit myself to several preliminary remarks.

(1) The context limits, to a greater or lesser extent, the semantic range of the lexical units (depending on how sensitive they are to the context): 'she' in the context of a sentence or several sentences refers, for example, to Madame Bovary. By narrowing the semantic range, the context simultaneously enriches the semantic content of a lexical unit, particularly so in poetry, where the influence of the context frequently results in a stratification of the meaning into several layers.

(2) A lexical unit (or a segment) usually relates to many contexts, which differ above all in their range; these contexts may be another component of the image or they may be the sentence, the surrounding sentences or the whole paragraph, as well as fairly distant segments of the same work, other works of the same genre etc. This

¹⁹ Levý describes an experiment he conducted with 14 students to investigate the interpretation paradigm of a sign (swallows, roses), concluding that the resulting interpretations were based on the interaction of (a) the denotative meaning of the image producing a set of abstract connotations, (b) the context and (c) personal idiolects. (Editor's note)

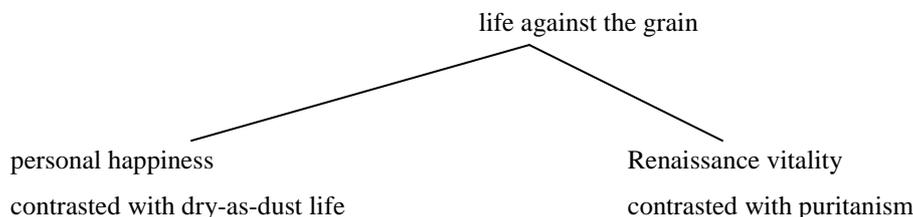
means that, from the point of view of the respective individual relationships, even entire structures (genre, period, author's philosophical stance etc.) acquire the function of a context of the selected lexical unit (a motif or a segment) and that therefore a close analysis of the context entails the application of suitable methodology for the investigation of relationships between systems as elements of a broader, higher-order system.

(3) Account should be taken of the fact that, in literature, context is constituted by linear movement in a sequence of signs (or systems of signs), i.e. by the reading of a literary text (or by gradual growth of the reader's experience of the entire genre etc.) Therefore a context created by the sequence of signs preceding a given segment and a context created by the sequence of signs following it are not equivalent to one another.²⁰ In the former case the segment of text just read fulfils (or fails to fulfil) the expectations raised by the preceding context; in the latter case, conversely, the full meaning of this particular segment is dependent on the reading of the subsequent context. The analysis of context cannot therefore be undertaken until we are capable of breaking down the process of concretisation into a series of mutually inter-dependent steps.

The model for the interpretation of a poetic motif which we have deduced empirically indicates that the set of connotational meanings of a sign is a hierarchical structure corresponding in form to the structure of a denotational meaning that was presented above (see Fig. 2). Individual readers then interpret this structure on various levels of definition, and naturally they combine these specific connotations with elements of their own personal idiolect.

Our considerations regarding the interpretation of several motifs demonstrate the elusive nature of the so-called definition of the main idea. Despite the fact that the interpretation of the respective motifs is diffuse and that its range usually broadens with their growing complexity, it is true that the work as a whole leads to a limited number of conclusions. As soon as the individual motifs become part of the work, relationships between them are established which automatically exclude the possibility of certain explanations and graduate the probability of others. From this standpoint, then, context acts as a sort of filter modifying the probability (validity) of individual possibilities of interpretation.

The definition of the 'idea of the work' is an ambiguous task, and it is simply insoluble unless at least the level of definition, the level of abstraction, is fixed; for example, the idea of Shakespeare's *Twelfth Night* can be defined on the following levels of abstraction, and of course others as well:



The lower the level of abstraction, i.e. the more concrete the explanation, the broader the range of possibilities (the more complex the ramifications of the interpretation 'tree') and the more disputes are usually found regarding explanations. To disambiguate the task it is necessary to ensure that the more concrete the

²⁰ Cf. Nida (1964, 134-135).

definition the more rules there are for selection, whether in the form of points of reference in the context of the work or in the context of the interpreter (the cultural and political situation etc.), because we have to say what interpretations the text *permits* and what interpretation we *want*.

Conflicting interpretations of one and the same work or motif are not usually in an exclusive relationship (A – all except A), but an oppositional relationship (A – non-A) and so they are mutually compatible at a higher level of abstraction, where meaning is narrowed down to a category which appeared in the interpretations in both positive and negative forms. Therefore, the first condition for their analysis is the determination of the common meaning which is implicit in them and the ramifications of which gave rise to them. On the other hand it is necessary to determine what this basic meaning related to and what gave rise to its respective modifications.

Also, the structure of readers' understanding of 'the idea of the work' can be discovered empirically. [. . .]²¹

From the sphere of individual realisations we now turn to sociological questions of the reception of literature, a topic which used to be covered under such headings as the former 'sociology of literary taste'. We will not consider these issues in detail here, as this would entail adopting a stance on the entire range of modern methods of sociology and verifying this stance by our own empirical data.

For the time being it should suffice to simply point out that the sociology of the reception of literature occupies a place in our discussion of reception resembling that occupied by the subject matter of literary history in the discussion of the creative process. Whereas individual interpretations take the form of personal decisions, in the wider set of interpretations they become one of the elements of the decision-making role in a statistical sense. Just as the 'value' of individual solutions in translation was dependent on the composition of the readership, the probability of individual interpretations is dependent on its sociological structure.

Finally, of course, there remains the crucial question, that of the *correctness* of the interpretation. In most cases it cannot be considered deterministically, in absolute terms:

[. . .] can we find and define in an acceptable way some principles for the foundation of interpretative statements? The problem appears to be a specific one: *degrees of justification* must necessarily be distinguished. In most cases the question is not whether an interpretative statement is true or false but rather in how far one interpretation – often one out of many possibilities – substantially contributes to our knowledge. (de Groot 1965, 264)

According to de Groot, the judgement of interpretation takes the following form:

In terms of the system S, according to the rules R, I interpret C to mean X [...]. If both S and R were, first, well defined and second, accepted as valid, the statement on C would not be called an interpretation. It would be *an explanatory statement*. (de Groot 1965, 265-6)

An interpretation is a selection from a set of alternatives which are not equally justified, a stochastic decision-making process; an explanation is the only decision possible in a given situation, thus it is deterministic.

The set of alternatives, or in our terminology the *interpretation paradigm*, is determined by the definition instruction. In this case it is now possible to express in the form of a question, as a problem to be solved, 'the central idea of *Twelfth Night*', 'the sense of the stars motif' etc. Interpretations in the meaning of substituting the sense will have to be distinguished from causal interpretations, determining the cause. The selection of an

²¹ Levý describes the results of his experiment. (Editor's note)

interpretation from the set of possible alternatives occurs according to the selection instructions, in de Groot's formulation: the system S and the rules R.

De Groot (1965) introduces two fundamental methods for the verification of the validity of the interpretation:

a) 'testing the interpretation by extrapolation' (ibid., 268-9), i.e. investigation to ascertain whether it also applies to other phenomena of the category C; where C is a closed set, it is possible to divide it into several parts, create an interpretation for one of them, then test it by applying it to the other parts of category C.

b) applying 'the principle of convergence' (ibid., 266), i.e. demonstrating that sets of facts of various kinds, such as those relating to form or content and literary, biographical, and historical data etc. lead to the same interpretation.

In both cases, two variants of the same procedure are involved. The selected interpretation is converted into one entity of the whole paradigm of selected interpretations in order to enable us to define which selection instruction was the basis for the decision, i.e. to enable us to convert the selection instruction of a single decision into a definition instruction of the entire paradigm of decisions; it can then be easily verified whether it is compatible with our system S and rules R.

The model of the creation of a work of literature presented here has a methodological premise in common with the generative grammar of a language; essentially, the model of the interpretation of a work concurs with the recognoscative model of language. On these methodological principles it is possible to construct a *generative (recognoscative) poetics*.

The generative model naturally does not offer a concrete explanation of the creation of individual works. It is an open system, which can accept concrete explanations. For example, it is possible to identify historical, sociological or individual psychological motivations for particular works, or parts of them. On the generative model, these motivations for the author's decisions become selection instructions which have their own *function* in the generative structure of the work. The reasons for these decisions remain 'external to the work' and are in the nature of relations between the system and its surroundings; they are therefore not relevant from the point of view of the system, but a causal explanation of the creation is naturally not inconsistent with the system itself. Psychological, sociological and other genetic explanations are concrete interpretations of the abstract model.

The recognoscative model of the reception of a work of literature also has the character of a general structure, the interpretations of which are individual concrete explanations. At first glance it would seem that the generative and the recognoscative models are isomorphic; they have the same structure of instructions and the same hierarchy of paradigms. In reality, the recognoscative model is more complex; the resultant 'meaning' arises not only through a selection from the possible connotations of the signs contained in the text, but also from other elements from the personal 'lexicon' of the reader, i.e. the reader's personal experience. Thus an intermingling of two systems results, one contained in the semantic structure of the text and the other contained in the structure of the reader's memory.

I will now present an approach to a particular aspect of a literary work, the analysis of a character, which is at once generative and recognoscative. [. . .]²²

²² Because of limitations of space, an entire chapter has been omitted here, except for the concluding generalisation. In this chapter Levý presents an unprecedented and fascinating structural analysis of the constitution of a character both from the point of view of its creation and that of its reception, thus demonstrating his model. The analysis is supported by experimental data that feed back into the model. (Editor's note)

Empirical data and experimentation have no inherent sense; rather they should be considered as auxiliary methods in theoretical analysis. They have particular relevance in cases where we are presently incapable of providing a sound theoretical description because the system under investigation is too complex. Such a case is the concretisation of literature, especially if we understand it not as a resultant 'representation' but as a process (concretisation). At any given moment during the reading the concretisation (representation) is set in motion and alters with the reception of the subsequent sections of the text. It is a learning process (Lernprozess)²³ which in formal terms is a Markov chain (a series of states, each of which is conditioned by all the preceding states). This is a continuous series, more exactly a linear process which can nevertheless be broken down into a number of 'steps', if we wish to trace the variations of a particular aspect of the concretisation (e.g. 'perception of the characters', as in our present case).

The intention here has been merely to demonstrate a method; it would be appropriate to make systematic use of it if a structural analysis of the texts under investigation was simultaneously available to us, so that we could arrive at conclusions regarding the relationships between elements of the semantic structure of the text and elements of its concretisation by readers. The structure of the text would, of course, also have to be traced as a linear process, i.e. it would have to be established how different aspects of the work (a character, relations between the characters, issues etc.) are composed in the course of time. In place of our static generative model we would then create a dynamic model. But this is a task for a later study. The objective here has been merely to present a generative system in its most simple, static form; only after it has been fully developed will it be possible to proceed to a study of the dynamic system.

4. Methodological Conclusions

In conclusion let us summarise the methodological premises we have arrived at through our concrete analysis of certain aspects of the creation and reception of a work of literature. From the standpoint of the formal structure of their progression, the generative and recognoscative processes are *decision-making* processes, from the standpoint of the function of the outcomes of individual decisions they are *semiotic* processes.

First let us recall the main types of decision-making processes which have been discussed. Creation and reception are a special case of decision-making processes; they are processes with one participant (the author or the reader), by contrast with games, where there are always two or more participants:

Where there is only one participant involved and his objectives are clearly defined, the basic decision problem reduces technically to a strict maximization of the objective functions subject to the natural constraints of the model. [...] Where there is one participant and uncertainties are present, a solution can usually be obtained by combining the methods of statistics with variational techniques. (Karlin (1959, 5)

This is the case with all processes which we have characterised as a choice from a paradigm of possible alternatives; the selection of a linguistic expression or motif designed to achieve a certain effect, the selection of action which constitutes a character trait etc.

The possibility of applying games theory to the study of literature has been at least hinted at by I. M. Lotman:

²³ On learning processes cf. e.g. Frank (1963), von Cube (1962) and further articles in this journal.

The reception of a literary text is always a contest between the listener and the author (in this sense the mathematical theory of games is applied to the study of the reception of art). Having read a certain part of the text, the reader 'supplies' the whole and the author's next 'move' may confirm this guess and make further reading pointless, at least from the point of view of contemporary aesthetic norms, or reject the guess, requiring of the reader a new version. But the author's next 'move' again raises the same two possibilities, and so on until such time as the author, 'defeating' the reader's prior experience of art and the reader's aesthetic norms and prejudices,, makes him adopt his model of the world and his structure of reality. This is also the end of the work, and it can precede the end of the text, if the author employs a stereotype which is recognised by the reader at the beginning of the work.

Naturally, the reader is not passive but is interested in mastering the model proposed by the artist. He hopes by means of this model to explain and so defeat the forces of the external and internal world. Therefore the defeated reader derives emotional pleasure from the artist's victory.²⁴

The example given by Lotman belongs to the category of 'games against nature' (which is only a different concept of decision-making with a single active participant); in order to activate the participation of a second participant he transfers the issue to the sphere of intention. Lotman here formulates for the first time a new and fundamentally correct methodological premise, but he does not apply it to the analysis of real situations which can be broken down into objectively verifiable elements. Instead, he moves into the unverifiable sphere of a psychological hypothesis regarding the source of aesthetic pleasure; ultimately, not even the aesthetic assumptions which he posits have general validity, because fulfilled as well as unfulfilled expectations have an aesthetic impact.

In the analysis of literary decision-making processes I have deliberately restricted myself to the simpler case, static decision-making problems:

Decision problems can be divided into two contrasting types – static problems and dynamic problems. A static decision problem is one in which the variables do not involve time explicitly. A dynamic model is one in which time plays a very decisive role. [...] In a static situation a strategy is selected once and for all to be carried out directly, whereas the strategies available in the dynamic situation are usually complicated functions of information received and actions undertaken in the preceding stages. (Karlin 1959, 4)

Learning processes are based on the principle of gradual examination of the material. Simple decision-making situations such as the selection of a certain motif may be considered static. However, as soon as we have in mind the progress of a generative process or a reception process, dynamic processes are involved. We have frequently found this to be the case, for example in the explanation of the creation of *The Raven*, the explanation of an action, a character etc. However, for the sake of simplicity, wherever possible, especially in the introductory sections, dynamic situations were broken down into a series of static situations, a procedure commonly adopted in games theory:

[...] an ostensibly dynamic process can be regarded as static; as when the same variables are introduced at the successive time points as new variables. (Karlin 1959, 4)

²⁴ "Восприятие художественного текста – всегда борьба между слушателем и автором (в этом смысле к изучению восприятия искусства применима математическая теория игр) . Восприняв некую часть текста, слушатель «достраивает» целое. следующий «ход» автора может подтвердить эту догадку и сделать дальнейшее чтение бесполезным, по крайней мере с точки зрения современных эстетических норм, или опровергнуть догадку, потребовав со стороны слушателя нового построения. Но следующий авторский «ход» вновь выдвигает эти две возможности. И так – до того момента, пока автор, «победив» предшествующий художественный опыт, эстетические нормы и предрассудки слушателя, не навяжет ему свою модель мира, свое понимание структуры действительности. Этот момент и будет концом произведения, который может наступить раньше, чем конец текста, если автор использует модель – штамп, природа которого раскрывается слушателю в начале произведения. Понятно, что читатель не пассивен, он заинтересован в овладении моделью, которую предлагает ему художник. С ее помощью он надеется объяснить и тем самым победить силы внешнего и внутреннего мира. Поэтому победа художника доставляет побежденному читателю эмоциональную радость." (Lotman 1964. 171)

Neither the creative nor the reception process is once and for all; they proceed in a large number of stages, steps, therefore they are multi-stage decision-making processes:

Multistage decision problems, sometimes called dynamic programming, are problems involving a number (usually an infinite number) of decisions made in the course of time. Each decision depends on all past decisions and in turn affects all future decisions. (Karlin 1959, 8)

The notes presented here should therefore be treated as a demonstration of the method in its simplest form; at a later stage it will be necessary to consider the modelling of dynamic processes, especially communicative and learning processes.

Another methodological premise, which, as has been seen in the concrete analysis, is similar to the first, is the concept of the semiotic system. Semiotics distinguishes two 'axes' of language – the paradigmatic and the syntagmatic. Language involves systemic relationships of two kinds:

a) The sign is involved in *paradigmatic* relationships by association with other signs (elements) which have something in common with it (e.g. meaning); this is therefore not a relationship realised in the linear sequence of an utterance but a relationship with some group of signs not present but stored in the memory. In other words there is a set from which selections are made in a static decision-making process.

b) The sign is involved in *syntagmatic* relationships as a member of the linear sequence of an actual utterance (parole); this is therefore a relationship with the preceding and following signs (elements). In other words, it is a matter of the sequence of individual steps in a dynamic decision-making process.

It is clear that the elements of this system in literature -- and in general in any linguistic utterance – are signs. But the instructions defining the respective individual paradigms are also by their nature semiotic.

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