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Text as Semantic Choice in Social Contexts

1 The semantic system

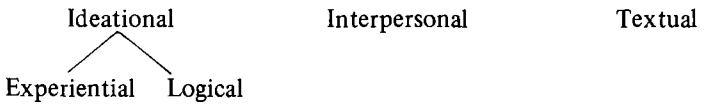
1.1 Initial assumptions

First, and least controversially, let us assume that the semantic system is one of three levels, or strata, that constitute the linguistic system:

Semantic (semology)
Lexicogrammatical (lexology: syntax, morphology and lexis)
Phonological (phonology and phonetics).

These are strata in Lamb's 'stratificational' sense.

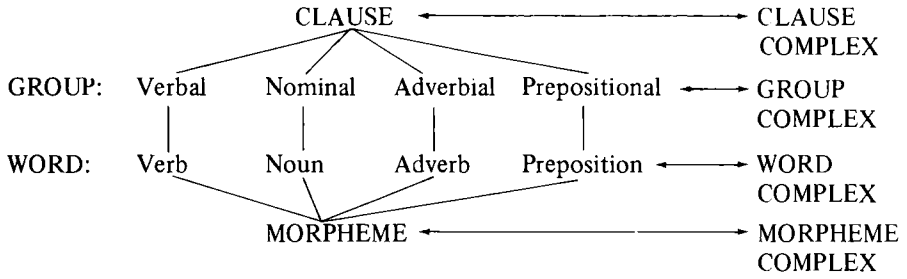
Second, let us assume that the semantic system has the four components experiential, logical, interpersonal and textual. The first two of these are closely related, more so than other pairs, and can be combined under the heading of 'ideational' (but see 1.3 below):



Third, let us assume that each stratum, and each component, is described as a network of options, sets of interrelated choices having the form 'if *a*, then either *b* or *c*'. Variants of this general form include: 'if *a*, then either *x* or *y* or *z* and either *m* or *n*; if *x*, or if *m*, then either *p* or *q*; if both *y* and *n*, then either *r* or *s* or *t*' and so on. The description is, therefore, a paradigmatic one, in which environments are also defined paradigmatically: the environment of any option is the set of options that are related to it, including those that define its condition of entry. The description is also open-ended: there is no point at which no further subcategorization of the options is possible.

Fourth, let us assume that each component of the semantic system specifies its own structures, as the 'output' of the options in the network (each act of choice contributes to the formation of the structure). It is the function of the lexicogrammatical stratum to map the structures one on to another so as to form a single integrated structure that represents all components simultaneously. With negligible exceptions, every operational instance of a lexicogrammatical construct in the adult language – anything that realizes text – is structured as the expression of all four components. In other words, any instance of language in use 'means' in these various ways, and shows that it does so in its grammar.

Fifth, let us assume that the lexicogrammatical system is organized by rank (as opposed to by immediate constituent structure); each rank is the locus of structural configurations, the place where structures from the different components are mapped on to each other. The 'rank scale' for the lexicogrammar of English is:



Complexes are univariate (recursive) structures formed by paratactic or hypotactic combinations – co-ordination, apposition, modification and the like – at the rank in question; a clause complex may be formed for example by two clauses in co-ordination. All other structures are multivariate (non-recursive). A 'sentence' is defined as a clause complex. See Huddleston (1965), Hudson (1967 and 1971), and Sinclair (1972).

1.2 Structural configurations

It follows from the above that each type of unit – clause, verbal group, nominal group, etc. – is in itself a structural composite, a combination of structures each of which derives from one or other component of the semantics.

A clause, for example, has a structure formed out of elements such as Agent, Process, Extent; this structure derives from the system of transitivity, which is part of the experiential component. Simultaneously it has a structure formed out of the elements Modal and Propositional: this derives from the system of mood, which is part of the interpersonal component. It also has a third structure composed of the elements Theme and Rheme, deriving from the theme system, which is part of the textual component.

For example:

	The Grays	retired	to their beds
Experiential: (transitivity)	Medium	Process	Location: locative
Interpersonal: (mood)	Modal	Propositional	
Textual: (theme)	Theme	Rheme	

It is not the case that the same constituent structure (same bracketing) holds throughout, with only the labels differing. This is already clear from this example: the thematic and modal structures are simple binary ones, whereas the transitivity

structure is not. In any case, the representation just given is oversimplified; the Modal constituent includes the finite element in the verb, and consists of Subject plus Finiteness, yielding an analysis as follows:

Clause:	the Grays	'did	retire'	to their beds
(1)	Medium	Process		Location: locative
(2)	Modal Subject	Finite	Propositional	
(3)	Theme	Rheme		

There may be differences at other points too; in general it is characteristic of lexicogrammatical structures that the configurations deriving from the various functional components of the semantic system will differ not only in their labelling but in their bracketing also.

The logical component is distinct from the other three in that all logical meanings, and only logical meanings, are expressed through the structure of 'unit complexes': clause complex, group complex and so on. For example:

Clause complex:	the Grays stopped maligning the hippopotamuses	and retired to their beds
Logical: (co-ordination)	(Clause) A ——————→	(Clause) B

1.3 Functional components of the system

The grouping of semantic components differs according to the perspective from which we look at them.

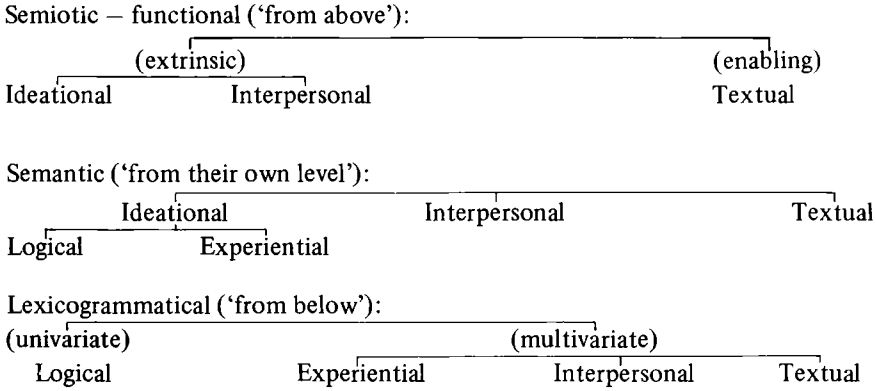
From the standpoint of their realization in the lexicogrammatical system (i.e. "from below"), the logical component, since it alone is, and it always is, realized through recursive structures, is the one that stands out as distinct from all the others.

From the standpoint of the functions of the linguistic system in relation to some higher level semiotic that is realized through the l i n g u i s t i c semiotic (i.e. "from above"), it is the textual component that appears as distinct, since the textual component has an enabling function in respect of the other components: language can effectively express ideational and interpersonal meanings only because it can create text. Text is language in operation; and the textual component embodies the semantic systems by means of which text is created.

From the point of view of the organization within the semantic system itself (i.e. "from the same level"), the experiential and the logical go together because there is greater systemic interdependence between these two than between other pairings. This shows up in various places throughout the English semantic system (the general pattern may well be the same in all languages, though the specifics are different): for example, the semantics of time reference, of speaking ('X said –'), and of identifying ('A = B') all involve some interplay of experiential and logical systems. To

illustrate this from the semantics of speaking, the p r o c e s s 'say' is an option in the transitivity system, which is experiential; whereas the r e l a t i o n between the process of saying and what is said – the 'reporting' relation – is an option in the logical system of interclause relations. The picture is something like the following:

Functional components of semantic systems,
seen from different vantage points:



The following table (p. 180) sets out the principal semantic systems arranged by function and rank, showing their functional location in the semantic system and their point of origin in the lexicogrammar.

1.4 Systems of the spoken language

In considering the nature of text, we have to take note of the fact that certain semantic systems are realized through the medium of phonological systems which have no counterpart in the written language.

In English there are two important systems of this kind: the information system, and the system of 'key'.

The information system, which derives from the textual component, determines how the text is organized as a flow of messages. It does not operate through a unit on the lexicogrammatical rank scale but specifies a distinct constituent structure of its own, which we refer to as 'information structure'. The information structure is realized through the intonation system of the phonology; and the structural unit, the 'information unit', is realized as a phonological constituent (i.e. a unit on the phonological rank scale), the one which is generally known as the tone group, or tone unit. This is the carrier of one complete tone contour. See Halliday (1967), Elmenoufy (1969), Halliday (1970).

Since it is realized through intonation, which is not shown in the writing system, the information structure is a feature of the spoken language only; and any interpretation of the information structure of a written text depends on the 'implication of utterance' which is a feature of written language. There are two aspects to this: (1) the interpretation of the paragraphological signals that the written language employs, such as punctuation, underlining and other forms of emphasis; (2) the assump-

IDEATIONAL		INTERPERSONAL	TEXTUAL	
LOGICAL	EXPERIENTIAL			(COHESION)
S T R U C T U R A L				NON-STRUCTURAL
1 CLAUSE STRUCTURE				
Complexes at all ranks (clause complex etc.)	clause: transitivity, modulation; polarity	clause: mood, modality	clause: theme	reference
expansion				
identity	verbal group: types of process; tense	verbal group: person, polarity	verbal group: voice; contrast	substitution/ ellipsis
projection				
(paratactic & hypotactic)	nominal group: types of participant; class, quality, quantity etc.	nominal group: person ('role')	nominal group: deixis	conjunction
	adverbial group: prepositional group: types of circumstance	adverbial group: prepositional group comment	adverbial group: prepositional group: conjunction	lexical cohesion: reiteration, collocation
		connotations of attitude etc.		
		2 INFORMATION STRUCTURE		
		information unit: key	information unit: information distribution & focus	

Table I

Functional components of the semantic system

tion of the 'good reason' principle, namely that the mapping of the information structure on to other structures will take the unmarked form except where there is good reason for it to do otherwise (or, to put the same thing in another way, that it will take the form that is l o c a l l y unmarked).

This does not mean that we are left with only one possible reading of a text, because in any real text there will be both ambiguities and conflicts in the 'co-text', the relevant textual environment at any point. Different features may be counted as relevant; some features will allow more than one interpretation; and some features will run counter to others in the pressures they exert. But there will always be a vast number of theoretically possible readings that are ruled out by the co-text, so that the number of sensible interpretations is reasonably small.

To illustrate this point adequately would take a lengthy article in itself. But a brief illustration of it is given after the discussion of the information system and the systems of 'key', at the end of 2.4. Since the information system is part of the textual component it is treated in the context of the discussion of that component, in the next main section (2.3, below).

The system that we are referring to as 'key' is not part of the textual component, but of the interpersonal component. It determines the role of each message unit in the interaction of speaker and hearer. In fact there is no single system of key; the term is a covering label for a whole number of specific sub-systems related to the interpersonal system of mood. These systems operate with the information unit as their locus of origin, and are realized through variations in 'tone': that is, in the intonation contour that is associated with each tone group. The systems of 'key' are referred to briefly in section 2.4 for the purposes of the illustration.

2 The textual (text-forming) component

2.1 Text-forming resources of the system

The entire semantic system is 'text-forming', in the sense that a text is the product of meanings of all four kinds – experiential, logical and interpersonal, as well as textual.

The textual component, however, is the component whose function is specifically that of creating text, of making the difference between language in the abstract and language in use. In other words it is through the semantic options of the textual component that language comes to be relevant to its environment, as distinct from decontextualized language like words listed in a dictionary or sentences in a grammar book.

The Prague school were the first to identify this component, and it came to be known in their work as "functional sentence perspective"; see Daneš (1974). There it has been defined lexicogrammatically, as a component of sentence structure; and in consequence the concept of 'FSP' is not taken to include those features which are not aspects of sentence structure – the set of features that has been grouped together under the heading of "cohesion" (see below).

The text-forming resources of language are partly structural (in the sense that they are organized as structure-generating networks of options) and partly not. An example of one that is not structural is anaphoric reference by a third person pronoun

such as *he*. The person system itself, in whatever form it appears in the language in question (it will generally be relatable to some idealized norm such as first/second/third, singular/plural), is a structure-generating system; but it is not the person system as such that is text-forming. The text-forming agency is the relation between *he* and its antecedent; and this is not a structural relation in the defined sense.

The textual component of English is made up of the following: (I) The structure-generating systems (those of functional sentence perspective), which are of two kinds, (i) thematic systems and (ii) information systems; see Halliday (1968). (II) The cohesive relations, which are of four kinds, (i) referential, (ii) substitutive-elliptical, (iii) conjunctive and (iv) lexical; see Gutwinski (1974), Halliday and Hasan (1976). These are what provide texture in the language. There is no implication here that these are universal features; they may be, or they may not. But the systems in each network, and the way the systems are realized, are specific to the language in question.

These systems are outlined in subsections 2.2–2.7.

2.2 Thematic systems

The thematic systems are systems of the clause, and represent the speaker's organization of the clause as a message. The basic structure through which this organization is realized is that of Theme and Rheme, which in turn is expressed through the order of the elements: the Theme comes first.

The Theme is typically a single element in the clause structure, like *they* in *they called up their friends and neighbors* (s. 16), *late that evening* (s. 12), *to the Grays* (s. 10); including complex elements (group complexes) like *an arrogant gray parrot and his arrogant mate* (s. 1). Often it is foregrounded by being enclosed in a predication, for example *it was long after midnight before* (s. 17).

Very frequently, however, the Theme has the form of a nominalization, a device which allows two or more elements to be taken together as the Theme. There are no examples of this in the text. If, instead of *he calls her snooky-ookums* (s. 2), in which the Theme is *he,* the author had written *what he calls her is snooky-ookums,* the Theme would have been *(what) he calls her.* This is the function of nominalization in the clause: it permits the expression of all possible options in the thematic organization. (Note that *the tender things they said to each other during the monolithic give-and-take of their courtship* is not an example of a multiple Theme; it is a simple Theme consisting of one nominal group only – which happens to have a clause embedded in it as Qualifier).

The thematic system is speaker-oriented, in the sense that the Theme is the speaker's chosen point of departure, and the choice of Theme is independent of what has gone before. In the typical, or unmarked, instance, the Theme is selected from among the elements that are also Given (see 2.3 below): it is something that the speaker is also presenting as environmentally recoverable to the hearer. Hence the most usual type of Theme is a personal pronoun; about half of those in the text are of this kind. But the theme system is not determined by external factors, and with only minor restrictions any alignment of clause elements as Theme and Rheme will be possible.

For each of the principal options in the mood system, there is an unmarked choice of Theme. In the declarative and imperative moods, the unmarked Theme is the Sub-

ject; and it is important to stress in this connection that the function of Subject in the clause is no less a semantic function than other clause functions such as Agent or Theme. It is a function deriving from the interpersonal component, via the system of mood: the Subject is the 'mood-carrying' (modal) nominal, meaning 'I state that X . . . ' in the declarative and 'I want that X . . . ' in the imperative.

In the interrogative mood, the unmarked Theme depends on the type of interrogative: it is the WH-element in a WH-type interrogative, and the finite element of the verb in a yes/no interrogative. In either case the meaning is 'I want to know X', where X is either the interpretation of the WH-element, or the polarity ('yes or no?', expressed in the finite verb).

Examples from the text:

Theme	Rheme	
he	calls her snooky-ookums	declarative (s. 2)
('you')	listen to those squawks	imperative (s. 13)
what in the world	can they see in each other?	WH-interrogative (s. 14)
can	you believe that?	yes/no interrogative (s. 3)

The principle that initial position is thematic in function explains a great many features of sequence ('word-order') in the grammar of English, both in the clause and in other units. The unmarked theme of a question is what the questioner wants to know; hence in a WH-interrogative the WH-element comes first, and in a yes/no interrogative the finite element, which is the one that carries the polarity, comes first. The unmarked theme of a command is 'I want (me/you/us) to . . .'; hence the modal Subject comes first – optionally omitted in the unmarked 'you' option. The same principle lies behind the tendency for the Subject to come first in a declarative; only here it is much weaker, and more readily overridden by marked themes of various kinds. It also extends to other units than the clause: it is essentially the same thematic principle which determines the assignment of initial position in the group, where it is not subject to choice: the deictic element in the nominal group, the element expressing primary tense or modality in the verbal group, and the preposition in the prepositional group. In each case these are the elements which relate the group to its environment, and so determine its relevance in the message; hence in a language in which initial position is strongly thematic, such as English, they will tend to float to the front and stay there.

2.3 Information systems

The information systems organize the discourse into quanta of information, or message blocks, called 'information units', and determine the internal structure of each information unit.

The structure of the information unit is made up of the elements Given and New. These are realized through the phonological systems of intonation. Each information unit is encoded as one unit of intonation, or 'tone group'; and the New element is marked out by the use of tonic prominence as a culminative feature – the syllable on which the tonic prominence falls is the last accented syllable of the New. The element bearing the culminative tonic accent is said to bear the 'information focus'.

The unmarked place for the New element is at the end of the information unit. In such instances, i.e. when the final element is New, what precedes may be either Given or New. In all other instances, i.e. when some non-final element is presented as New, then every other element in the information unit is thereby signalled as Given.

The meaning of Given is 'treated by the speaker as recoverable to the hearer from the environment'. Conversely, New means 'treated as non-recoverable'. Non-recoverable does not imply that the i t e m in question cannot have occurred before, but that if it has, the meaning that is associated with it is non-recoverable in the context. For example,

D' you want to speak to John, or to Mary? –
I want to speak to J o h n.

Have you met John and Mary Smith? –
J o h n I know.

In both instances, *John* is shown as New in the response; not because it has not occurred before, but because it is carrying other information ('John is the one I want to speak to', 'John but not Mary') that the speaker assumes to be non-recoverable to the hearer – since otherwise, presumably, he would not have asked the question in the first place. It is important not to confuse the concept of New with that of 'no previous mention'.

The intonational prominence – the tonic accent – marks the culmination of the New, so that anything f o l l o w i n g is automatically Given; this includes all inherently Given elements – anaphoric and deictic items – that happen to occur finally in the information unit. The status of what p r e c e d e s is governed by two principles: (1) the system of marking, and (2) the structural hierarchy of the grammar (the 'rank scale');

(1) (a) If the information focus falls on an element that is other than the last accented element in the information unit (an 'accented' element being any element that is not 'inherently Given'), the focus is m a r k e d.

Semantically this means that the information structure is environmentally specific; there is no indeterminacy, and all else in the information unit is Given. Example (s. 11):

(But they decided instead to . . .)
// 1 g o s s i p a / bout the / shameless / pair //

Here the focus is on *gossip*, which is non-final; it is therefore marked, and signals *the shameless pair* as explicitly Given. (This happens also to provide an excellent illustration of another cohesive principle, a form of lexical cohesion, whereby a 'general word' is introduced as a Given element (here the word *pair*) to serve as the carrier of an attitudinal Epithet (here *shameless*).)

(1) (b) If the focus falls on the last accented element (last element other than any that are 'inherently Given'), it is unmarked. Semantically this means that the information structure is not environmentally specific; and indeterminacy results. In this case, the whole information unit may be New; or the New may begin at any structural boundary. The only restriction is that the New cannot be discontinuous: G+N, N+G, G+N+G are all possible structures, but N+G+N is not – the last can be achieved

only by encoding as a sequence of two information units. For an example see below under (2).

(2) The focal element, the element that is defined by the tonic prominence, is the highest-ranking sub-constituent for which the prominence is culminative. That is to say, if the information unit is one clause (this being, as a matter of fact, the unmarked form of the mapping), the focal constituent will be a group – the group being the next-ranking unit below the clause – p r o v i d e d t h e t o n i c p r o m i n e n c e f a l l s o n t h e l a s t a c c e n t e d s y l l a b l e i n t h e e n t i r e g r o u p. Example (s. 15):

// I would as / soon / live with a / pair of / unoiled / garden / s h e a r s //

where the tonic prominence on *shears* marks the entire group *a pair of unoiled garden shears* as being the focal constituent (since the information unit is a clause). If the tonic prominence had been assigned to *unoiled*, the focal constituent would be only the w o r d *unoiled* itself, since the prominence would not be culminative for the whole nominal group, but only for the word. In the former instance, with the reading we have assumed, the information structure is unmarked. In the latter, the information structure would be marked, and would therefore presuppose a specific semantic environment, in which the point at issue was "what kind of garden shears would you as soon live with?"

The information system, in contrast to the thematic system, is hearer-oriented. That is to say, the meaning that is encoded in the Given-New structure is that of 'recoverable, or not recoverable, to the hearer.' This in turn depends on the environment, both verbal and non-verbal; if a meaning is recoverable, it is in some way or other (but there are many possible ways) present in the environment. Since the environment includes the preceding text, the information structure often serves to relate a piece to what has gone before it. But recoverability is not a simple matter of previous mention; and in any case it is the speaker's decision what he is going to t r e a t a s recoverable. He is free to use the system as he pleases, and frequently uses it to great effect as a means of c o n s t r u c t i n g the environment it is designed to reflect.

The speaker has total discretion; he is constructing all the meanings at once. The reader of a written text is in the peculiar position of having discretion at just those points where the written medium happens to be most ambiguous; of which the information system is one. He can, if he chooses, read sentences 2 and 3 as

// 4 h e calls her // 1 snooky / o o k u m s said / Mrs. / Gray // 2 can / y o u believe / that //

which imposes the interpretation 'Do y o u believe that's her name? – that's what h e calls her'. The only grounds for rejecting this are that it doesn't make sense (of the text; it makes perfectly good sense of the sentence). There could, of course, be no better grounds than that. But it illustrates the kind of decision that a reader is making all the time, whereas a hearer has the solution presented to him readymade.

We tend to think of the information unit as being unlike the lexicogrammatical units of clause, group and so on, in that while the latter are specified simultaneously

by all semantic components, the former is defined solely by the textual component. A clause is the domain of systems of all kinds, experiential (e.g. transitivity), interpersonal (e.g. mood), and textual (e.g. theme); whereas the information unit is the domain only of the information systems But this is not wholly true. The information unit is also exploited by the interpersonal component as the carrier of the systems of 'key': those, related to mood, whereby the speaker selects the key signature that attaches to the particular role assignment he is making for himself and for the hearer. The choice of key is expressed by the tone contour; and the point of origin for this choice is the information unit – since the information unit is encoded as a tone group, and one tone group is one complete tone contour, the two naturally coincide. So the information structure operates as a kind of distinct but simultaneous constituent hierarchy, or 'rank scale': one that is mapped on to the conventional grammatical hierarchy of clause, group, word and morpheme, but realizes a different set of semantic systems The rationale for this is very simple: the information structure is simply the phonological system doing extra work. It is the phonological hierarchy that is being 'borrowed for the occasion.

The various types of phonological contrast, those of intonation, of rhythm or 'pulse' and of articulation, are organized as a distinct constituent hierarchy, or 'phonological rank scale'; in English, tone group foot (or stress group), syllable, phoneme. This hierarchy, and the 'phonotactics' that is based on it, functions as a whole in the realization of the lexicogrammatical system. But once it has come into being, so to speak, particular parts of it function on their own in the representation of particular semantic systems, which can thus be regarded as 'bypassing' the grammar as 'meanings encoded directly in sounds' – although for theoretical reasons it is useful to include them in the systematic representation at the lexicogrammatical level. Prominent among these are the ones that we are referring to as systems of key.

The 'key' systems are not part of the textual component. But there is some overlap between them and the information systems, which is of significance for text description. The next sub-section explains this point.

2.4 Digression: the systems of 'key'

The 'key' is expressed by the choice of tone, the system of pitch contours that is carried by the tone group. In its bare essentials, this is a system of five tones fall (tone 1), rise (tone 2), low rise (tone 3), fall-rise (tone 4), rise-fall (tone 5)

These tones have different meaning – that is they realize different semantic systems – according to their modal environment: according to whether they occur in the environment of a declarative, an interrogative, or an imperative, and what kind of declarative, interrogative or imperative it is. For example, a rising tone (tone 2) on a yes/no interrogative means a 'straight' question; the same tone on a WH-interrogative means (according to where the prominence is located) either an 'echo' question or a question embedded in a request for permission to ask it; and on a declarative it means a contradiction.

The pitch contour as specified in this way begins on the point of tonic prominence (as defined in 2.3 above). This prominence, although often interpreted in terms of stress ('primary stress' in the theory of supra-segmentals), is in fact melodic prominence: the point of concentration of the melodic contour (the main fall, the fall-and-

turn, etc.). If there is any part of the tone group before the tonic accent, this is the locus of a sub-melody or 'pretone' which adds further specification to the meaning. Since, as already noted, everything that comes a f t e r the tonic prominence is 'Given', there are no 'post-tones', but only predictable prolongations of the contour, known as 'tails'.

For a narrative text with dialogue it is relevant to note that all quoting clauses function as tails to preceding quoted (direct speech) passages:

// 1 I would as / soon / live with a / pair of / unoiled / garden / s h e a r s said her in / amo / ratus //

There is an optional silent beat at the end of the quoted clause:

/ s h e a r s /^ said her in / amo ' ratus //.

Once again, in reading a written text we assume unmarked choices: we assume the unmarked key unless there is good reason in the environment for the choice of another one – which then becomes the l o c a l l y unmarked choice, since the environment sets up a local norm. So, for example, on a yes/no interrogative such as *Can you believe that?* (s. 3), taken in isolation, we would assign a tone 2 (rising). However, the text environment shows that here it is to be interpreted not as a straight question but as an exclamation; so it will be assigned a tone that is unmarked for exclamations (tone 5, or a certain variety of tone 1). It could be argued that the specific meanings that are present in the question itself, expressed by the lexical verb *believe* in second person with 'potential' modulation, are sufficient to convey the sense of exclamation, but this does not affect the point – rather it illustrates a more general point, that of the flexibility and relative indeterminacy of what it is that constitutes the environment.

It would be out of place here to describe the systems of key in detail; for a fuller account, see Halliday (1967), and also Halliday (1970). In any case many of them are relevant only to spoken texts in spontaneous verbal interaction, and are not activated in the reading of a written text aloud. But there is one system which lies on the borderline of key and information structure (and hence on the borderline of the interpersonal and textual components) which is, on the contrary, m o r e activated in loud reading than in any other variety of English; so we will refer to this in a final illustration from the text.

Given a pair of successive information units, one an unmarked (tone 1) declarative and the other semantically related to it, there is a system of options for the latter, which is realized as a choice among tone 1, tone 3 and tone 4. There is, further, an unmarked association between this and the three syntactic forms which this relation may take: independent (unrelated) clause with parallel structure, paratactically related clause, and hypotactically related clause. These unmarked patterns can be illustrated as follows:

(1) // 1 the hippopotamuses stopped criticizing the Grays; // 1 the Grays stopped maligning the hippopotamuses //

(2) // 3 the hippopotamuses stopped criticizing the Grays, // 1 and the Grays stopped maligning the hippopotamuses //

(3) // 4 when the hippopotamuses stopped criticizing the Grays, // 1 the Grays stopped maligning the hippopotamuses //

Variation in meaning is achieved by means of marked combinations: tone 4 with an independent clause, tone 3 with a hypotactic clause, and so on. And the contrast between tone 3 and tone 4, indicating different degrees of dependence, is available to almost any information unit that is contingent on another one having tone 1.

If now we consider a sentence such as the last one of the main paragraph (s. 11), we find a large number of possible interpretations, including but by no means limited to the following:

But they decided instead	to phone their friends and neighbors	and gossip about the shameless pair
// 3 . . . instead	// 3 . . . neighbors	// 1 . gossip . . . //
// 3 . . . instead	// 1 . . . neighbors	// 1 . gossip . . . //
// 4 . . . instead	// 3 . . . neighbors	// 1 . gossip . . . //
// 4 . . . instead	// 1 . . . neighbors	// 1 . gossip . . . //
// 1	. . . neighbors	// 1 . gossip . . . //
// 4 . . . instead	// 1	. . . . gossip . . . //

each of which includes a number of sub-varieties. All these are different 'readings' of the text, and all have different meanings, slight and subtle though these may be. This illustrates the way in which the information structure, and associated systems of key, are supplied by the reader in the loud-reading (and at least in a certain type of silent reading) of a written text. Reading a text is not a purely receptive activity; the reader is also a speaker, even if he is only talking to himself.

2.5 Referential cohesion

Certain elements in the linguistic system have the property that they are interpretable only by reference to something other than themselves. These are the personals, demonstratives (including *the*) and comparatives; for example *she*, *this*, *earlier* as in *She's shy. This is what I meant. You should have come earlier.* These are perfectly i n t e l l i g i b l e on their own; but they are i n t e r p r e t a b l e only when we know who 'she' is, what 'this' is, and 'earlier' than what.

The reference may be 'exophoric', to some phenomenon located outside the text and in the context of situation; or 'endophoric', to an element within the text, typically something that has preceded ('anaphoric') but sometimes to something that follows ('cataphoric'). So *she* may refer to someone present and identifiable, or to someone previously mentioned; *this* likewise to some object present and identifiable, or to something – an object or other phenomenon, or a fact – just mentioned or about to be mentioned; *earlier* may involve comparison with the present moment ('than now') or with some time previously mentioned. In a written narrative, all reference can be assumed to be endophoric; but the possibility of exophoric reference appears at one remove in the dialogue that is embedded in the narrative. For example in *He calls her snooky-ookums . . . Can you believe that?* (s. 2/3), *he* and *her* are exophoric to the narrative, whereas *that* is endophoric to the dialogue and refers to '(the fact that) he calls her snooky-ookums'.

Reference is a semantic relation and is usually assumed, no doubt justifiably, to be in origin exophoric; and this explains why it takes the forms it does. Personal refer-

ence depends on the concept of personal roles in the speech situation ('some person or object other than speaker and addressee'); demonstrative reference is based on proximity ('near' or 'not near'; in some languages it is specifically tied to the concept of person, the meanings being 'near me', 'near you', 'not near either of us'); comparative reference involves a conception of likeness and unlikeness between phenomena. The word *the* functions as the unmarked demonstrative; it signals that the referent can be identified, but without locating it on any semantic scale.

Whatever its origin in the linguistic system, reference is a primary text-forming agency, since all endophoric reference contributes to the making of a text. It is a signal that the interpretation is to be sought elsewhere; and if the source lies in some other word or words in the text, cohesion is set up between the two passages in question. This cohesion is independent of the linguistic structure, and so may extend beyond any structural unit; it provides an alternative to structure as a means of cohering one part of the meaning with another.

There are numerous instances in the text of reference as a cohesive relation, across sentence boundaries, both endophoric within the narrative and exophoric from the dialogue to the narrative. Examples from sent. 13–15: (dialogue to narrative) demonstrative *those* [*squawks*], personal *they*, comparative *as soon*; (narrative to narrative) *the* [*male hippopotamus*], *the* [*female hippopotamus*], *her* [*inamoratus*].

2.6 Substitutive and elliptical cohesion

Certain elements which are not referential in the above sense create texture by substitution: they function as alternatives to the repetition of a particular item, and hence cohere with the passage in which that item occurs. For example if the question *Why aren't you listening to the music?* is answered by *I am doing,* the word *doing* is a substitute for *listening to the music,* and hence it signals that the response is in fact an answer to the question. This relation is also independent of structure; there may or may not be a sentence boundary in between.

Substitution, in turn, is a particular form of ellipsis, in which the ellipsis is filled by an explicit counter, or placeholder. Another possible form of response above would be simply *I am*, with *listening to the music* presupposed by ellipsis. Similarly in *What are you doing? – Listening to the music*, the response is an elliptical version of *I'm listening to the music*, this time with the modal element *I am* omitted; and again the ellipsis provides cohesion between the answer and the question that preceded it.

Reference, it was pointed out, is a semantic relation, in which the source of interpretation of some element is to be sought elsewhere; with 'elsewhere in the text' as a special case. Ellipsis, by contrast, is a purely formal relation, in which some item is to be transported from elsewhere to fill a designated slot. Ellipsis is essentially a relation within the text, and not, like reference, a relation of text to environment in which the relevant environmental feature may happen incidentally to be located in the text. For this reason substitutive and elliptical relations are not found in semiotic systems other than language, whereas referential relations often are.

Substitution and ellipsis are primarily associated with spoken language, especially spontaneous conversation. The only examples in the text are *"No"*, and *"Capsized bathtub, indeed!"* in sentences 4 and 6.

2.7 Conjunctive cohesion

Any pair of adjacent sentences may be related by one of a small set of semantic relations, which may be described in most general terms under the four headings of 'and', 'yet', 'so', and 'then' (additive, adversative, causal, temporal). Each of these covers a wide range of more specific meanings.

Like other cohesive relations, these have their structural counterparts in the form of relations within the sentence, for example in the hypotactic structures with *besides, although, because, after*. But the systems of options are different under these two conditions, the cohesive and the structural.

Each one of the types of conjunctive relation has in principle two interpretations, according to the functional-semantic component from which it is derived. Either the conjunctive meaning resides in the ideational component, as a relation within the thesis; or it resides in the interpersonal component, as a relation within the speech process. These have been referred to respectively as 'external' and 'internal', taking the communication process as the point of departure: a relation between things – between phenomena that constitute the ideational content of the discourse – is one that is external to the communication process.

The distinction is not totally clearcut, and many instances are indeterminate. It appears clearly in a pair of examples such as the following, where the relation is a temporal one:

(external) First of all the machine broke down. Next it started to make alarming noises inside.

(internal) First of all the machine has broken down. Next it doesn't belong to me anyway.

In the first, the temporal successivity is between the two phenomena which constiture the thesis; in the second, it is between the two steps in the argument, in the speaker's unfolding of his role in the speech situation.

In a narrative text the conjunctive relations are likely to be mainly of the external kind; an example is the adversative in s. 10 and 11: . . . *they thought of calling the A.B.I. . . But they decided instead to phone their friends and neighbors.* The basic meaning of the adversative relation is unexpectedness: 'contrary to the expectation set up by the environment'. An example of this relation in its internal sense is possibly to be found in sentences 9 and 10:

> The tender things they said to each other . . sounded as lyric to them as flowers in bud . . . To the Grays, however, the bumbling romp of the lover and his lass was hard to comprehend and even harder to tolerate . . .

where the meaning is 'by contrast', 'on the other hand', and the adversative relation resides not so much in the phenomenon of there being the two attitudes ('seemed good to the hippos but bad to the parrots') as in the narrator's juxtaposing of them as a step in the narrative, brought out by the foregrounded status of *the Grays* as a marked Theme in the second sentence.

2.8 Lexical cohesion

This is the special kind of texture that is achieved by the use of vocabulary, (a) by reiteration and (b) by collocation. Both of these can be exemplified from the text (numerals refer to sentences):

(a) Reiteration (semantic). Keyword: *lover* (in title).

In system: \ In text:	same referent	including same referent	excluding same referent	unrelated referent
same word	*lover* 1, 8	*lovemaking* 10		*love* 18
synonym	*inamoratus* 15	*courtship* 9	*mate* 1 *endearment* 12	
super-ordinate	*male* 5	*affection* 5	*female* 5, 16 *male* 16	
general word		*creatures* 10 *pair* 11		

The display reflects the fact that the word *lover* is semantically complex; it contains the two components of affection and mating, and both of these elements are reiterated throughout the text. There is a certain arbitrariness in both dimensions of the table, but each is motivated by general considerations, the vertical dimension representing the organization of the system and the horizontal the patterning of text. The vertical dimension is really a continuity, ranging from (1) repetitions (of the same lexical item – which is itself by no means a determinate concept; here we take the morpheme *love* as criterial), through (2) synonyms at more or less the same level of generality, to (3) related items of greater generality, those which are higher in the lexical taxonomy, up to (4) the class of 'general words' that figure at the top, which have very little specific content and occur mainly as cohesive agents. The horizontal dimension shows the referential relationship between the reiterated item and the base word: co-referential, inclusive, exclusive or unrelated.

(b) Collocation (lexical). Keyword: *lover* (in title). Cohesive chain formed of items related by collocation:

lass (title) – *lover* (1) – *lass* (1) –
affection (4) – *spring* (8) – *lover* (8) –
lass (8) – *young* (8) – *oblivious* (8) –
happily (8) – *tender* (9) – *lyric* (9) –
flowers (9) – *bud* (9)

These are pairs or sets of items that have a strong tendency i n t h e s y s t e m to co-occurrence; hence when they do co-occur in a text, the effect is cohesive. The two concepts of reiteration and collocation are overlapping: lexical items that typically collocate with one another (i.e. are related in the lexical system) are often those which are partially synonymous (i.e are related in the semantic system). But they are not identical concepts; the relationships are on two different levels. There is no, or only a tenuous, semantic link between *lover* and *spring*: but these are regularly

collocated in English writing from Shakespeare to the present day. Conversely, there is no strong collocational bond between *courtship* and *endearment,* or between *lover* and *inamoratus* – it must be rare to find the latter pair in the same text under any circumstances! The lexical structure of a text depends on both types of relationship, and on the interplay that occurs between the two.

The sequences illustrated are probably the most pervasive in the present text, but there are other important strands of lexical cohesion, for example the motifs of derision (*arrogant – scornful – sharp-tongued – mocking – derision*) and of monstrosity. For a detailed study and interpretation of collocational patterning in English, see Sinclair et al. (1970).

Cohesion can be thought of as a p r o c e s s in the text, the linking of some element – often but not always an element that is inherently presupposing – to something that has gone before, or in certain instances to something that is to follow. It would be wrong however to conceive of it as having no place in the semantic system, as what some linguists call a 'surface' phenomenon. Cohesion is also a r e l a t i o n in the system. As such it is not directional, though it is ordered in the case of inherently presupposing elements (reference items and substitutes). The meaning of this relation in its most general terms is that of 'co-interpretation'. This in turn takes on a number of more specific meanings according to the type of cohesion: co-referentiality (identity of reference) is one of these more specific meanings. Co-interpretation refers to the fact that the elements that are 'tied' by the cohesive relation are interpreted (not identically but) as a whole, with mutual dependence or 'solidarity' between them.

A general treatment of cohesion, covering reference, substitution, ellipsis, conjunction and lexical cohesion, will be found in Halliday and Hasan (1976). This book also contains a scheme of analysis and notation for describing the cohesive properties of a text. For a treatment of cohesion in English literary texts see Gutwinski (1974).

3. The nature of text

3.1 Text and 'non-text'

The features discussed in the last section – thematic systems, information systems, and the various types of cohesion – represent the specifically text-forming resources of the linguistic system. The first two are structural, in the sense that options in these systems contribute to the derivation of structure: thematic options to the lexicogrammatical structure, being realized through the clause, and informational ones to what we have called the information structure, a distinct though related hierarchy that is realized directly in the phonological system, through the tone group. The cohesive relations are non-structural, not being realized through any form of structural configuration.

It should be stressed that all these are aspects of the semantic system. They are options in meaning, which like other options in meaning are realized through the organization at other strata.

In order to give a complete characterization of texture we should have to make reference also to 'generic' structure, the form that a text has as a property of its genre.

The fact that the present text is a narrative, and of a particular kind, as specified in the general title *Fables for Our Time* – that is, it is a complex of a traditional narrative form, the fable, and a later form, the humorous essay, to which this has been adapted – defines for it a certain generic structure, which determines such things as its length, the types of participant (typically animals given human attributes, or at least human roles, and engaging in dialogue), and the culmination in a moral.

The generic structure is outside the linguistic system; it is language as the projection of a higher-level semiotic structure. It is not simply a feature of literary genres; there is a generic structure in all discourse, including the most informal spontaneous conversation; see Sacks et al. (1973). The concept of generic structure can be brought within the general framework of the concept of register, the semantic patterning that is characteristically associated with the 'context of situation' of a text; see section 4 below, and also Gregory (1967), Halliday (1974), Hasan (1973). The structure of the narrative genre, especially traditional forms of narrative, has been extensively studied across a wide range of different languages, and we shall not attempt to discuss it here; see for example Taber (1966), Chabrol and Marin (1971).

These three factors – generic structure, textual structure (thematic and informational), and cohesion – are what distinguish text from 'non-text'. One does not normally meet 'non-text' in real life, though one can construct it for illustrative purposes. Here is a passage in which only the thematic structure has been scrambled; everything else, including all other aspects of the texture, is well-formed:

> Now comes the President here. It's the window he's stepping through to wave to the crowd. On his victory his opponent congratulates him. What they are shaking now is hands. A speech is going to be made by him. "Gentlemen and ladies. That you are confident in me honours me. I shall, hereby pledge I, turn this country into a place, in which what people do safely will be live, and the ones who grow up happily will be able to be their children".

These patterns are not optional stylistic variants; they are an integral part of the meaning of language. Texture is not something that is achieved by superimposing an appropriate text form on a pre-existing ideational content. The textual component is a component of meaning along with the ideational and interpersonal components. Hence a linguistic description is not a progressive specification of a set of structures one after the other, ideational, then interpersonal, then textual. The system does not first generate a representation of reality, then encode it as a speech act, and finally recode it as a text, as the metaphors of philosophical linguistics seem to imply. It embodies all these types of meaning in simultaneous networks of options, from each of which derive structures that are mapped on to one another in the course of their lexicogrammatical realization. The lexicogrammar acts as the integrative system, taking configurations from all the components of the semantics and combining them to form multilayered, 'polyphonic' structural compositions.

3.2 The text as a semantic unit

The quality of texture is not defined by size. There is a concept of a text as a kind of super-sentence, something that is larger than a sentence but of the same nature. But this is to misrepresent the essential quality of a text. Obviously one cannot quarrel with the use of the term 'text' to refer to a string of sentences that realize a

text; but it is important to stress that the sentences are, in fact, the realization of text rather than constituting the text itself. Text is a semantic concept.

The same problem has arisen in linguistics with the conception of the sentence as a super-phoneme. A sentence is not an outsize phonological unit; it is a lexicogrammatical unit that is realized in the phonological system, which has its own hierarchy of units. It may be that the sentence in some language or other is marked off by the phonological system, so that it can be identified at the phonological level; but that does not make the sentence a phonological concept. There is developmental evidence that a child builds up his phonology from both ends, as it were, constructing a phonological system on the one hand and individual phonological representations of lexicogrammatical elements on the other – both particular word phonologies and generalized syllable phonologies at the same time; see Ferguson and Farwell (1973). In other words a system is built up both as a tactic system, in its own right, and as the piecemeal realization of elements of a higher level system. We find an analogous process taking place at the next level up. The child both constructs a lexicogrammatical system and, simultaneously, lexicogrammatical representations of semantic elements. Just as he develops a word phonology side by side with a syllable phonology, he also develops a text grammar side by side with a clause grammar. The 'text grammar' in this sense is the realization, in the lexicogrammar, of particular elements on the semantic stratum; and it explains the important part played in language development by the learning of large stretches of 'wording' as uninterrupted wholes.

A text, as we are interpreting it, is a semantic unit, which is not composed of sentences but is realized in sentences. A text is to the semantic system what a clause is to the lexicogrammatical system and a syllable to the phonological system. It may be characterized by certain lexicogrammatical features, just as a clause may be characterized by certain phonological features; but this does not make it a lexicogrammatical unit (given that such a unit is to be defined, as we have defined it, by its being the locus of lexicogrammatical structures).

Whether or not, and in what sense, there is a rank scale, or hierarchy, of semantic units, as some linguists have suggested, must be left undecided. A clause is only one of a number of structure-carrying units in the grammar and it is not entirely clear why it should be singled out as the primary grammatical constituent; the same applies to the syllable, or any unit that is selected as the basic unit for phonology. The concept of semantic units is much less clearcut, since the concept of semantic structures is less clearcut. In any case the linguistic system as a whole is not symmetrical, as Lamb pointed out in his review of Hjelmslev; see Lamb (1966). Moreover the distinguishing feature of the semantic system is its organization into functional components. These determine, not units of different sizes, but simultaneous configurations of meanings of different kinds. The semantic analogue of the rank scale would appear to be not some kind of a hierarchy of structural units but the multiple determination of the text as a unit in respect of more than one property, or 'dimension' of meaning.

Let us express this more concretely in relation to the text that is under consideration. It constitutes "a text" as defined by the textual component: not only has it a generic structure, but it is also internally cohesive, and it functions as a whole as the relevant environment for the operation of the theme and information systems. In other words it has a unity of what we have called 'texture', deriving from the spe-

cifically text-forming component within the semantic system, and this is sufficient to define it as a text. But we are likely to find this unity reflected also in its ideational and interpersonal meanings so that its quality as a text is reinforced by a continuity of context and of speaker-audience relationship. In fact this 'artistic unity' is already contained in the concept of generic structure, and reflected in the specific forms taken by the cohesive relations. So there is a continuity in the time reference (every finite verb in the narrative is in simple past tense, every one in the dialogue is in simple present); in the transitivity patterns (the process types are those of perception, cognition, verbalization, and attribution, except for the very last sentence; and there is a rather even distribution among them); in the attitudinal modes, the form of the dialogue, and so on.

In other words, a text is a semantic unit defined by the textual component. This is not a tautology: rather it is the reason for calling the textual component by that name. A text has a generic structure, is internally cohesive, and constitutes the relevant environment for selection in the 'textual' systems of the grammar. But its unity as a text is likely to be displayed in patterns of ideational and interpersonal meaning as well. A text is the product of its environment, and it functions in that environment. In section 4 we shall explore briefly the way in which we can conceptualize the relation of text to its environment, and the processes whereby specific aspects of a speaker's or writer's semantic system tend to be activated by – and hence, in turn, to shape and modify – specific aspects of the environment in which meanings are exchanged.

Meanwhile we should stress the essential indeterminacy of the concept of "a text". Clauses, or syllables, are relatively well-defined entities: we usually know how many of them there are, in any instance, and we can even specify, in terms of some theory, where they begin and end. A text, in the normal course of events, is not something that has a beginning and an ending. The exchange of meanings is a continuous process that is involved in all human interaction; it is not unstructured, but it is seamless, and all that one can observe is a kind of periodicity in which peak of texture alternate with troughs – highly cohesive moments of relatively little continuity. The discreteness of a literary text is untypical of texts as a whole.

By 'text', then, we understand a continuous process of semantic choice. Text is meaning and meaning is choice, an ongoing current of selections each in its paradigmatic environment of what might have been meant (but was not) It is the paradigmatic environment the innumerable subsystems that make up the semantic system – that must provide the basis of the description, if the text to be related to higher orders of meaning whether social literature or of some theoretical semiotic universe. The reason why descriptions based on structure are of limited value in text studies is that in such theories the paradigmatic element is subordinated to a syntagmatic frame of reference; when paradigmatic concepts are introduced, such as transformation, they are embedded in what remains essentially a syntagmatic theory. By what at first sight appears as a paradox since text is syntagmatic process (but see Hjelmslev (1961) section 11), it is the paradigmatic basis of description that makes it significant for text studies. Hence in glossematics and similarly in the 'systemic' version of system structure theory the syntagmatic concept of structure is embedded in a theory that is essentially paradigmatic. Here the description is based on system; and text is interpreted as the process of continuous movement through the system,

a process which both expresses the higher orders of meaning that constitute the 'social semiotic', the meaning systems of the culture, and at the same time changes and modifies the system itself.

3.3 The text as projection of meanings at a higher level

What is 'above' the text? If text is semantic process, encoded in the lexicogrammatical system, what is it the encoding of in its turn?

What is 'above' depends on one's perspective, on the nature of the enquiry and the ideology of the enquirer. There are different higher level semiotics, and often different levels of meaning within each.

This point emerges very clearly if one considers literary texts. To say that a text has meaning as literature is to relate it specifically to a literary universe of discourse as distinct from others, and thus to interpret it in terms of literary norms and assumptions about the nature of meaning. The linguistic description of a text which is contextualized in this way attempts to explain its meaning as literature – why the reader interprets it as he does, and why he evaluates it as he does. This involves relating the text to a higher level semiotic system which is faceted and layered in much the same way as the linguistic system itself. An example of this 'layering' from the present text is the use of the generic form of the fable as the vehicle of a humorous essay, already referred to above. The 'level of literary execution' is part of the total realizational chain; see Hasan (1971).

When there is foregrounding of lexicogrammatical or phonological features in a literary text, particular forms of linguistic prominence that relate directly to some facet of its literary interpretation, this is closely analogous to the 'bypassing' phenomenon that is found within the linguistic system when some element in the semantics is realized directly in phonological terms (cf. 2.3 above). At this point there is isomorphism between two adjacent strata, and the phenomenon can be represented as a straight pass through one of the stratal systems. We have referred to this already in relation to the information and 'key' systems in the semantics of English: an example is the bandwidth of a falling tone expressing the degree of 'newness' or semantic contrast involved in a statement. It is possible in such a case to set up a grammatical system as an interface between the semantics and the phonology; and there are strong reasons for doing so, since there is a systematic interrelationship between this and other grammatical systems, although strictly in its own terms the grammatical representation is redundant because there is neither neutralization nor diversification at this point.

The point is a significant one because a great deal of stylistic foregrounding depends on an analogous process, by which some aspect of the underlying meaning is represented linguistically at more than one level: not only through the semantics of the text – the ideational and interpersonal meanings, as embodied in the content and in the writer's choice of his role – but also by direct reflection in the lexicogrammar or the phonology. For an example of this from a study of William Golding's novel *The Inheritors* see Halliday (1971), where it is suggested that the particular impact of this novel on reader and critic may be explained by the fact that the underlying semiotic is projected simultaneously on to the semantics, in the content of narrative and dialogue, and on to the grammar in the highly untypical transitivity

patterns that characterize, not so much individual clauses (none of which is in itself deviant), but the distribution of clause types in the writing as a whole.

The present text does not display this feature of multi-level foregrounding to any great extent because it is both short and prose. A verse text, however short, provides scope by virtue of its generic form for the sort of patterned variability of patterns which is involved in this kind of multiple projection; whereas in a prose text it is likely to appear only in rather long-range effects, as deflections in the typical patterns of co-occurrence and relative frequency. But there are minor instances: for example the phonaesthetic motif of the final syllable in *snaffle, bumble, wuffle* and *gurble,* and incongruity involved in the use of synonyms of different 'tenor' (see section 4 below) such as *mate, lover, inamoratus.*

To summarize this point: a text, as well as being realized in the lower levels of the linguistic system, lexicogrammatical and phonological, is also itself the realization of higher-level semiotic structures with their own modes of interpretation, literary, sociological, psychoanalytic and so on. These higher-level structures may be expressed not only by the semantics of the text but also by patterning at those lower levels; when such lower-level patterning is significant at some higher level it becomes what is known as 'foregrounded'. Such foregrounded patterns in lexicogrammar or phonology may be characteristic of a part or the whole of a text, or even of a whole class or genre of texts, a classic example being the rhyme schemes of the Petrarchan and Shakespearean sonnets as expression of two very different modes of artistic semiotic (patterns of meaning used as art forms).

3.4 The text as a sociosemiotic process

In its most general significance a text is a sociological event, a semiotic encounter through which the meanings that constitute the social system are e x c h a n g e d. The individual member is, by virtue of his membership, a 'meaner', one who means. By his acts of meaning, and those of other individual meaners, the social reality is created, maintained in good order, and continuously shaped and modified.

It is perhaps not too far-fetched to put it in these terms: reality consists of meanings, and the fact that meanings are essentially indeterminate and unbounded is what gives rise to that strand in human thought – philosophical, religious, scientific – in which the emphasis is on the dynamic, wave-like aspect of reality, its constant restructuring, its periodicity without recurrence, its continuity in time and space. Here there is no distinction between relations among symbols and relations among the 'things' that they symbolize – because both are of the same order; both the things and the symbols are meanings. The fact that aspects of reality can be digitalized and reduced to ordered operations or symbols is still consistent with the view of reality as meaning: certain aspects of meaning are also captured in this way. Pike expressed this property of the linguistic system by viewing language as particle, wave and field; each of these perspectives reveals a different kind of truth about it: see Pike (1959). Linguistic theory has remained at a stage at which particulateness is treated as the norm, and a number of different and not very clearly related concepts are invoked to handle the non-particulate aspects of language. As far as text studies, and text meaning, is concerned, however, we cannot relegate the indeterminacy to an appendix. The text is a continuous process. There is a constantly shifting relation

between a text and its environment, both paradigmatic and syntagmatic: the syntagmatic environment, the 'context of situation' (which includes the semantic context – and which for this reason we interpret as a semiotic construct), can be treated as a constant for the text as a whole but is in fact constantly changing, each part serving in turn as environment for the next. And the ongoing textcreating process continually modifies the system that engenders it, which is the paradigmatic environment of the text. Hence the dynamic, indeterminate nature of meaning, which can be idealized out to the margins if one is considering only the system, or only the text, emerges as the dominant mode of thought as soon as one comes to consider the two together, and to focus on text as actualized meaning potential.

The essential feature of text, therefore, is that it is interaction. The exchange of meanings is an interactive process, and text is the means of exchange: in order for the meanings which constitute the social system to be exchanged between members they must first be represented in some exchangeable symbolic form, and the most accessible of the available forms is language. So the meanings are encoded in (and through) the semantic system, and given the form of text. And so text functions as it were as potlatch: it is perhaps the most highly coded form of the gift. The contests in meaning that are a feature of so many human groups – cultures and sub-cultures – are from this point of view contests in giving, in a re-encoded form in which the gift, itself an element in the social semiotic (a 'meaning') but one that in the typical or at least the classic instance is realized as a thing, is realized instead as a special kind of abstract symbol, as meanings in the specifically linguistic sense Such a gift has the property that, however great its symbolic value (and howeve · much it may enrich the recipient), it does not in the slightest degree impoverish the giver

We can see this aspect of text, its function as exchange most clearly in th phenomenon of semantic contest· in competitive story-telling, exchange of insults, 'capping' another's jokes and other forms of verbal exploit Oral verse forms such as ballads, lyrics, and epigrammatic and allusive couplets figure in many cultures as modes of competing and even written composition may be predominantly a competitive act late Elizabethan sonnets provide an outstanding example. In all such instances the aim is to excel in meaning, in the act of giving and the value of the gift But it is not too fanciful to see the element of the gift as one component in all l terature and in this way to show how the act of meaning, and the product of this act namely text, comes to have value in the culture

The reason for making his point here needs to be clarifie t is n tural to conceive of text first and foremost as conversation· as the spontaneous interchange of meaning in ordinar , e ryday interaction It is in s · contexts tha r ity is constructed, in the microsemi i~ encounters of daily life.The reason why this i, so, why the culture is transmitted to, or recreated by, the individual in the first instance through conversation rather than through other acts of meaning, is that conversation typically relates to the environment in a way that is perceptible and concrete whereas other genres tend to depend on intermediate levels of symbolic interpretation. A literary text such as the present one creates its own immediate context of situation, and the relating of it to its environmen in the social sy tem · a complex and technical operation Conversation, while it i no less highly structured, is structured in such a way as to make explicit its relationship to its setting, though it is no less complex in its layers of meaning. the various semiotic strategies and motifs that make it up

are – by no means always, but in significantly many instances, and typically in the case of contexts that are critical in the socialization of a child: see Bernstein (1971) – derivable from features of the social environment. Hence to understand the nature of text as social action we are led naturally to consider spontaneous conversation, as being the most accessible to interpretation; and to draw a rather clear line between this and other, less immediately contextualizable acts of meaning such as a poem or prose narrative. It is perhaps useful in text studies, therefore, to bring out those aspects of the semiotic act that are common to all, and that encompass what is traditional as well as what is spontaneous, and relate to literary as well as to conversational texts. The very general concept of a text as an exchange of meanings covers both its status as gift and its role in the realization and construction of the social semiotic.

4 Text and situation

4.1 The situation as a determining environment

We have taken as our starting point the observation that meanings are created by the social system and are exchanged by the members in the form of text. The meanings so created are not, of course, isolates; they are integrated systems of meaning potential. It is in this sense that we can say that the meanings a r e the social system: the social system is itself interpretable as a semiotic system.

Persistence and change in the social system are both reflected in text and brought about by means of text. Text is the primary channel of the transmission of culture; and it is this aspect – text as the semantic process of social dynamics – that more than anything else has shaped the semantic system. Language has evolved as the primary mode of meaning in a social environment. It provides the means of acting on and reflecting on the environment, to be sure – but in a broader context, in which acting and reflecting on the environment are in turn the means of c r e a t i n g the environment and transmitting it from one generation to the next. That this is so is because the environment is a social construct. If things enter into it, they do so as bearers of social values.

Let us follow this line of reasoning through. The linguistic system has evolved in social contexts, as (one form of) the expression of the social semiotic. We see this clearly in the organization of the semantic system, where the ideational component has evolved as the mode of reflection on the environment and the interpersonal component as the mode of action on the environment. The system is a meaning potential, which is actualized in the form of text; a text is an instance of social meaning in a particular context of situation. We shall therefore expect to find the situation embodied or enshrined in the text not piecemeal, but in a way which reflects the systematic relation between the semantic structure and the social environment. In other words, the 'situation' will appear, as envisaged by Hymes (1971), as constitutive of the text; provided, that is, we can characterize it so as to take cognizance of the ecological properties of language, the features which relate it to its environment in the social system.

A text is, as we have stressed, an indeterminate concept. It may be very long, or very short; and it may have no very clear boundaries. Many things about language

can be learnt only from the study of very long texts. But there is much to be found out also from little texts; not only texts in the conventional forms of lyric poetry, proverbs and the like, but also brief transactions, casual encounters, and all kinds of verbal micro-operations. And among these there is a special value to the linguist in children's texts, since these tend to display their environmental links more directly and with less metaphorical mediation. (For a description of a short piece of child language, showing its relationship to the context of situation which engendered it, see Halliday (1975)). We find all the time in the speech of young children examples of the way in which they themselves expect text to be related to its environment: their own step-by-step building up of layers of metaphorical meaning affords a clear and impressive illustration of this point.

The question to be resolved is, how do we get from the situation to the text? What features of the environment, in any specific instance, called for these particular options in the linguistic system? It may be objected that this is asking the old question, why did he say (or write) what he did; and that is something we can never know. Let us make it clear, therefore, that we are not asking any questions that require to be answered in terms of individual psychology. We are asking: what is the potential of the system that is likely to be at risk, the semantic configurations that are typically associated with a specific situation type? This can always be expressed in personal terms, if it seems preferable to do so; but in that case the question will be: what meanings will the hearer, or reader, expect to be offered in this particular class of social contexts? The meanings that constitute any given text do not present themselves to the hearer out of the blue; he has a very good idea of what is coming. The final topic that will be discussed here is that of text and situation. In what sense can the concept of 'situation' be interpreted in a significant way as the environment of the text?

4.2 Semiotic structure of the situation: field, tenor and mode

It was suggested in the first section that the options that make up the semantic system are essentially of three or four kinds – four if we separate the experiential from the logical, as the grammar very clearly does.

We shall be able to show something of how the text is related to the situation if we can specify what aspects of the context of situation 'rule' each of these kinds of semantic option. In other words, for each component of meaning, what are the situational factors by which it is activated?

The question then becomes one of characterizing the context of situation in appropriate terms, in terms which will reveal the systematic relationship between language and the environment. This involves some form of theoretical construction that relates the situation simultaneously to the text, to the linguistic system, and to the social system. For this purpose we interpret the situation as a semiotic structure; it is an instance, or instantiation, of the meanings that make up the social system. Actually it is a class of instances, since what we characterize will be a situation t y p e rather than a particular situation considered as unique. The situation consists of

(1) the social action: that which is 'going on', and has recognizable meaning in the social system; typically a complex of acts in some ordered configuration,

and in which the text is playing some part; and including 'subject-matter' as one special aspect,

(2) the role structure: the cluster of socially meaningful participant relationships; both permanent attributes of the participants and role relationships that are specific to the situation; including the speech roles, those that come into being through the exchange of verbal meanings,

(3) the symbolic organization: the particular status that is assigned to the text within the situation; its function in relation to the social action and the role structure; including the channel or medium, and the rhetorical mode.

We shall refer to these by the terms 'field', 'tenor' and 'mode'. The environment, or social context, of language is structured as a f i e l d of significant social action, a t e n o r of role relationships, and a m o d e of symbolic organization. Taken together these constitute the situation, or 'context of situation', of a text.

We can then go on to establish a general principle governing the way in which these environmental features are projected on to the text.

Each of the components of the situation tends to determine the selection of options in a corresponding component of the semantics. In the typical instance, the field determines the selection of experiential meanings, the tenor determines the selection of interpersonal meanings, and the mode determines the selection of textual meanings.

Semiotic structure of situation	associated with	Functional component of semantics
field (type of social action)	„ „	experiential
tenor (role relationships)	„ „	interpersonal
mode (symbolic organization)	„ „	textual

The selection of options in experiential systems – that is, in transitivity, in the classes of things (objects, persons, events, etc.), in quality, quantity, time, place and so on – tends to be determined by the nature of the activity: what socially recognized action the participants are engaged in, in which the exchange of verbal meanings has a part. This includes everything from, at one end, types of action defined without reference to language, in which language has an entirely subordinate role, various forms of collaborative work and play such as unskilled manipulation of objects or simple physical games; through intermediate types in which language has some necessary but still ancillary function, operations requiring some verbal instruction and report, games with components of scoring, bidding, planning, and the like; to types of interaction defined solely in linguistic terms, like gossip, seminars, religious discourse and most of what is recognized under the heading of literature. At the latter end of the continuum the concept of 'subject-matter' intervenes; what we understand as subject-matter can be interpreted as one element in the structure of the 'field' in those contexts where the social action is inherently of a symbolic, verbal nature. In a game of football, the social action is the game itself, and any instructions or other verbal interaction among the players are p a r t o f this social action. In a discussion about a game of football, the social action is the discussion, and the verbal interaction among the participants is t h e w h o l e o f this social action. Here the game constitutes a second order of 'field', one that is brought into being

by that of the first-order, the discussion, owing to its special nature as a type of social action that is itself defined by language. It is to this second-order field of discourse that we give the name of 'subject-matter'.

The selection of interpersonal options, those in the systems of mood, modality, person, key, intensity, evaluation and comment and the like, tends to be determined by the role relationships in the situation. Again there is a distinction to be drawn between a first and a second order of such role relationships. Social roles of the first order are defined without reference to language, though they may be (and typically are) realized through language as one form of role-projecting behavior; all social roles in the usual sense of the term are of this order. Second order social roles are those which are defined by the linguistic system: these are the roles that come into being only in and through language, the discourse roles of questioner, informer, responder, doubter, contradicter and the like. (Other types of symbolic action, warning, threatening, greeting and so on, which may be realized either verbally or non-verbally, or both, define roles which are some way intermediate between the two.) These discourse roles determine the selection of options in the mood system. There are systematic patterns of relationship between the first order and the second order roles. An interesting example of this emerged from recent studies of classroom discourse, which showed that in the teacher-pupil relationship the role of teacher is typically combined with that of questioner and the role of pupil with that of respondent, and not the other way round (cf. *Five to Nine* (1972), Sinclair et al. (1972)) – despite our concept of education, it is not the learner who asks the questions.

The selection of options in the textual systems, such as those of theme, information and voice, and also the selection of cohesive patterns, those of reference, substitution and ellipsis, and conjunction, tend to be determined by the symbolic forms taken by the interaction, in particular the place that is assigned to the text in the total situation. This includes the distinction of medium, written or spoken, and the complex sub-varieties derived from these (written to be read aloud, and so on); we have already noted ways in which the organization of textforming resources is dependent on the medium of the text. But it extends to much more than this, to the particular semiotic function or range of functions that the text is serving in the environment in question. The rhetorical concepts of expository, didactic, persuasive, descriptive and the like are examples of such semiotic functions. All the categories under this third heading are second order categories, in that they are defined by reference to language and depend for their existence on the prior phenomenon of text. It is in this sense that the textual component in the semantic system was said to have an 'enabling' function vis-à-vis the other two: it is only through the encoding of semiotic interaction a s t e x t that the ideational and interpersonal components of meaning can become operational in an environment.

The concept of genre discussed above in section 2 is an aspect of what we are calling the 'mode'. The various genres of discourse, including literary genres, are the specific semiotic functions of text that have social value in the culture. A genre may have implications for other components of meaning: there are often associations between a particular genre and particular semantic features of an ideational or interpersonal kind, for example between the genre of prayer and certain selections in the mood system. Hence labels for generic categories are often functionally complex: a concept such as 'ballad' implies not only a certain text structure with typical patterns

of cohesion but also a certain range of content expressed through highly favoured options in transitivity and other experiential systems – the types of process and classes of person and object that are expected to figure in association with the situational role of a ballad text. The 'fable' is a category of a similar kind.

The patterns of determination that we find between the context of situation and the text are a general characteristic of the whole complex that is formed by a text and its environment. We shall not expect to be able to show that the options embodied in one or another particular sentence are determined by the field, tenor and mode of the situation. The principle is that each of these elements in the semiotic structure of the situation activates the corresponding component in the semantic system, creating in the process a semantic configuration, a grouping of favoured and foregrounded options from the total meaning potential, that is typically associated with the situation type in question. This semantic configuration is what we understand by the 'register': it defines the variety ('diatypic variety' in the sense of Gregory (1967)) that the particular text is an instance of. The concept of register is the necessary mediating concept that enables us to establish the continuity between a text and its sociosemiotic environment.

4.3 The situation of the present text

The 'situation' of a written text tends to be complex; and that of a fictional narrative is about as complex as it is possible for it to be. The complexity is not an automatic feature of language in the written medium: some written texts have relatively simple environments, which do not involve layers of interpretation. An example is a warning notice such as *Beware of the dog.*

The complexity of the environment of a written text arises rather from the semiotic functions with which writing is typically associated. In the case of fictional narrative, this is not even necessarily associated with writing: it is a feature just as much of oral narrative, traditional or spontaneous (in their different ways).

In a fictional text, the field of discourse is on two levels: the social act of narration, and the social acts that form the content of the narration. For our present text the description of the field would be in something like these terms:

1 (a) Verbal art: entertainment through story-telling
  (b) (i) Theme: human prejudice ('they're different, so hate them!'). Projected through:
    (ii) Thesis ('plot'): fictitious interaction of animals: male/female pairs of hippopotamuses, parrots.

The tenor is also on two levels, since two distinct sets of role relationships are embodied in the text: one between the narrator and his readership, which is embodied in the narrative, and one among the participants in the narrative, which is embodied in the dialogue:

2 (a) Writer and readers; writer adopting role as recounter: specifically as humorist (partly projected through subsidiary role as moralist), and assigning complementary role to audience.
  (b) Mate and mate: animal pair as projection of husband and wife; each adopting own (complementary) role as reinforcer of shared attitudes.

Since under each of the headings of 'field' and 'tenor' the text has appeared as a complex of two distinct levels, we might be tempted to conclude that a fictional narrative of this kind was really two separate 'texts' woven together. As a purely abstract model this could be made to stand; but it is really misleading, not only because it fails to account for the integration of the text – and in any sensible interpretation this is one text and not two – but also because the relation between the two levels is quite different in respect of the tenor from what it is in respect of the field. As regards the tenor, the text does fall into two distinct segments, the narrative, and the dialogue; each is characterized by its own set of role relationships, and the two combine to form a whole. As regards the field, however, there is no division in the text corresponding to the two levels of social action: the whole text is at one and the same time an act of malicious gossip a n d an act of verbal art, the one being the realization of the other. We could not, in other words, begin by separating out the two levels and then go on to describe the field and the tenor of each; we have to describe the field of the text, and then the tenor of the text, and both in different ways then reveal its two-level semiotic organization.

The oneness of the text also appears in the characterization of the mode, the symbolic structure of the situation and the specific role assigned to the text within it:

3 Text as 'self-sufficient', as o n l y form of social action by which 'situation' is defined.
Written medium: to be read silently as private act.
Light essay; original (newly-created) text projected on to traditional fable genre, structured as narrative-with-dialogue, with 'moral' as culminative element.

Even a general sketch such as this suggests something of the complexity of the concept of 'situation' applied to a written narrative. The complexity increases if we seek to make explicit the semiotic overtones that are typically associated with the interpretation of a literary text; in particular, as in this instance, the manysided relationship between the plot and the theme or themes underlying it. If the 'context of situation' is seen as the essential link between the social system (the 'context of culture', to use another of Malinowski's terms) and the text, then it is more than an abstract representation of the relevant material environment; it is a constellation of social meanings, and in the case of a literary text these are likely to involve many orders of cultural values, both the value systems themselves and the many specific sub-systems that exist as metaphors for them. At the same time, one of the effects of a sociosemiotic approach is to suggest that a l l language is literature, in this sense; it is only when we realize that the same things are true of the spontaneous verbal interaction of ordinary everyday life (and nothing demonstrates this more clearly than Harvey Sacks' brilliant exegesis of conversational texts, which is in the best traditions of literary interpretation) that we begin to understand how language functions in society – and how this, in turn, has moulded and determined the linguistic system.

If therefore there are limits on the extent to which we can demonstrate, in the present instance, that the text has its effective origin in the context of situation, this is only partly because of its peculiarly difficult standing as a complex genre of literary fiction; many other types of linguistic interaction are not essentially different

in this respect. There are more favourable instances; we have already referred in this connection to children's language, where there is not so much shifting of focus between different orders of meaning. Not that the speech of children is free of semiotic strategies – far from it; but the resources through which their strategies are effected tend to be less complex, less varied and less ambiguous – children cannot yet mean so many things at once. The present text, which is a good example of adult multivalence, is for that very reason less easy to derive from the context of situation, without a much more detailed interpretative apparatus. But certain features do emerge which illustrate the link between the semantic configurations of the text and the situational description that we have given of the field, tenor and mode. These are set out in the sub-section which follows.

4.4 Situational interpretation of the text

1 Story-telling – tense: every finite verb in narrative portions is in simple past tense

Theme/thesis – transitivity: predominantly
(a) mental process: perception, e.g. *listen;* cognition, e.g. *believe;* reaction, e.g. *surprise, shock;* (b) verbal process, introducing quoted speech. Animal participant as Medium of process (Cognizant, Speaker); note that there is a grammatical rule in English that the Cognizant in a mental process clause is always 'human', i.e. a thing endowed with the attribute of humanity,

– vocabulary as content (denotative meanings), e.g. *inamoratus* as expression of 'pair'.

2 Writer as recounter – mood: every clause in narrative portions is declarative (narrative statement).

Writer as humorist – vocabulary as attitude (connotative meanings), e.g. *inamoratus* as expression of mock stylishness.

Writer as moralist – mood: special mood structure for proverbial wisdom, *laugh and the world laughs . . .*

'Husband and wife' as players in game of prejudice-reinforcement – mood and modulation: clauses in dialogue portions switch rapidly among different moods and modulations, e.g. the sequence declarative, modulated interrogative, negative declarative, moodless, declarative (statement, exclamatory question, negative response, exclamation, statement).

3 Self-sufficiency of text – cohesion: reference entirely endophoric (within text itself). Note reference of *her* to *Lass* in title, suggesting highly organized text.

Written medium – information: no information structure, except as implied by punctuation, but 'alternative' devices characteristic of written language, viz. (i) higher lexical density per unit grammar, (ii) less complexity, and more parallelism, of grammatical structure, (iii) thematic variation (marked and nominalized themes), which suggests particular information structure because of association between the two systems, typically of the form ([Theme] Given) [Rheme (New)], i.e. Theme within Given, New within Rheme.

Genre: narrative with dialogue – Quoting structures: thematic form of quoted followed by quoting, with the latter (*said* + Subject) comprising informational

'tail', e.g. *"He calls her snooky-ookums", said Mrs. Gray* expresses 'dialogue in context of original fictional narrative'.

When the text is located in its environment, in such a way as to show what aspects of the environment are projected on to what features of the text, a pattern emerges of systematic relationship between the two. The linguistic features that were derived from the 'field' were all features assigned to the ideational component in the semantic system. Those deriving from the 'tenor' are all assigned to the interpersonal component; and those deriving from the 'mode', to the textual component.

The logical component enters in to the picture in a dual perspective which we shall not attempt to discuss in detail here. The meanings that make up this component are generalized ideational relations such as co-ordination, apposition, reported speech, modification and sub-modification; as such they form a part of the ideational component. But once in being, as it were, they may also serve to relate elements of the other components, interpersonal and textual. To take a simplest example, the meaning 'and' is itself an ideational one, but the 'and' relation can as well serve to link interpersonal as ideational meanings: *hell and damnation!* as well as *snakes and ladders.* Compare, in the present text, the 'and-ing' of alliterative (textual) features in *disdain and derision, mocking and monstrous.*

It should perhaps be stressed in this connection that the interpretation of the semantic system in terms of these components of ideational (experiential, logical), interpersonal and textual is prior to and independent of any consideration of field, tenor and mode. Such an interpretation is imposed by the form of internal organization of the linguistic system. Hence we can reasonably speak of the determination of the text by the situation, in the sense that the various semantic systems are seen to be activated by particular environmental factors that stand in a generalized functional relationship to them.

This picture emerges from a description of the properties of the text, especially one in terms of the relative frequency of options in the different systems. Much of the meaning of a text resides in the sort of foregrounding that is achieved by this kind of environmentally motivated prominence, in which certain sets of options are favoured (selected with greater frequency than expected on the assumption of unconditioned probability), as a realization of particular elements in the social context. The inspection of these sets of options one by one, each in its situational environment, is of course an analytical procedure; their selection by the speaker, and apprehension by the hearer, is a process of dynamic simultaneity, in which at any moment that we stop the tape, as it were, a whole lot of meaning selections are going on at once, all of which then become part of the environment in which further choices are made. If we lift out any one piece of the text, such as a single sentence, we will find the environment reflected not in the individual options (since these become significant only through their relative frequency of occurrence in the text), but in the particular combination of options that characterizes this sentence taken as a whole. As an example, consider the sentence:

"I would as soon live with a pair of unoiled garden shears", said her inamoratus.

This sentence combines the relational process of accompaniment, in *live with;* the class of object, *unoiled garden shears,* as circumstantial element; and the compara-

tive modulation *would as soon* (all of which are ideational meanings) as realization of the motif of human prejudice (field, as in 1 (b) above). It combines declarative mood, first person (speaker) as Subject, and the attitudinal element in *would as soon*, expressing personal preference (these being interpersonal meanings), as realization of the married couple's sharing of attitudes (tenor). Not very much can be said, naturally, about the specific text-forming elements within a single sentence; but it happens that in its thematic structure, which is the clause-internal aspect of texture, this sentence does combine a number of features that relate it to the 'mode': it has the particular quoting pattern referred to above as characteristic of dialogue in narrative, together with, in the quoted clause, the first person Theme in active voice that is one of the marks of informal conversation. In fact it displays in a paradigm form the crescendo of 'communicative dynamism' described by Firbas (1964, 1968) as typical of spoken English.

We shall not find the entire context of situation of a text neatly laid out before us by a single sentence. It is only by considering the text as a whole that we can see how it springs from its environment and is determined by the specific features of that environment. And until we have some theoretical model of this relationship we shall not really understand the processes by which meanings are exchanged. This is the significance of attempts towards a 'situational' interpretation of text. Verbal interaction is a highly coded form of social act, in which the interactants are continuously supplying the information that is 'missing' from the text; see on this point Cicourel (1969). They are all the time unravelling the code – and it is the situation that serves them as a 'key'. The predictions that the hearer or reader makes from his knowledge of the environment allow him to retrieve information that would otherwise be inaccessible to him. To explain these predictions requires some general account of the systematic relations among the situation, the linguistic system, and the text.

The text is the unit of the semantic process. It is the text, and not the sentence, which displays patterns of relationship with the situation. These patterns, the characteristic semantic trends and configurations that place the text in its environment, constitute the 'register'; each text can thus be treated as an instance of a class of text that is defined by the register in question. The field, tenor and mode of the situation collectively determine the register and in this way function as constitutive of the text.

What is revealed in a single sentence, or other unit of lexicogrammatical structure, is its origin in the functional organization of the semantic system. Each of the semantic components, ideational (experiential and logical), interpersonal and textual, has contributed to its makeup. The final section offers a detailed interpretation of one sentence of the present text, in terms of systems and structures; taking the same sentence as before, and presenting it as the product of numerous micro-acts of semantic choice. This will complete the semiotic cycle, the network that extends from the social system, as its upper bound, through the linguistic system on the one hand and the social context on the other, down to the 'wording', which is the text in its lexicogrammatical realization.

5 Analysis of a sentence

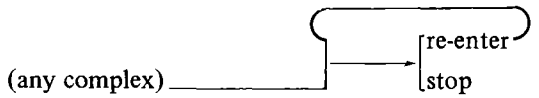
"I would as soon live with a pair of unoiled garden shears", said her inamoratus.

5.1 Systemic descriptions

(All system networks are simplified so as to show only those portions that are relevant to the sentence under description. Systems in which only unmarked selections are made in this sentence, such as polarity and voice, are omitted entirely.)

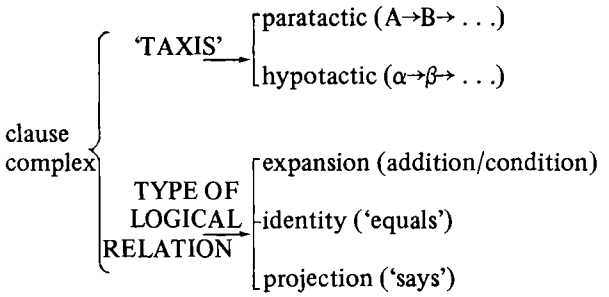
A. Logical

a) Clause complex (= sentence)
(This sentence is a clause complex consisting of two clauses in "quoting" relation. For the notion of the "complex" (clause complex, group complex etc.) see 1.1 above. All complexes, and only complexes, display a recursive option of the form



In other words, they embody recursive options, as distinct from embeddings.)

System network



SYSTEMIC DISCRIPTION	clause complex: (paratactic/projection)

STRUCTURAL DESCRIPTION	B: Quoted ← A: Quoting

Note: The intersection of these two systems yields the following paradigm of clause complex types:

	paratactic	hypotactic
expansion	co-ordinate	conditional, causal, concessive
identity	appositive	non-defining relative
projection	quoting (direct speech)	reporting (indirect speech)

Examples from the text:

Coordinate (s. 17)

(AA	→ AB)	→ (BA	→ BB)
the hippopotamuses stopped criticizing the Grays	*and fell asleep,*	*and the Grays stopped maligning the hippopotamuses*	*and retired to their beds.*

Appositive (s. 11)

A	→ B
gossip about the shameless pair,	*and describe them in mocking and monstrous metaphors involving skidding buses on icy streets and overturned moving vans.*

Quoting (s. 15)

B	← A
"I would as soon live with a pair of unoiled garden shears",	*said her inamoratus.*

Conditional, etc. (s. 10)

α	→ β
for a time they thought of calling the A.B.I., or African Bureau of Investigation,	*on the ground that monolithic lovemaking by enormous creatures who should have become decent fossils long ago was probably a threat to the security of the jungle.*

Non-defining relative (s. 1)

α	→ β
An arrogant gray parrot and his arrogant mate listened, one African afternoon, in disdain and derision, to the lovemaking of a lover and his lass,	*who happened to be hippopotamuses.*

Reporting (s. 5)

α	→ β
I don't see	*how any male in his right mind could entertain affection for a female that has no more charm than a capsized bathtub.*

b) Group complexes: NONE

nominal group	*I*
verbal group	*would live*
adverbial group	*as soon*
prepositional group	*with a pair of unoiled garden shears*
nominal group	*a pair of unoiled garden shears*
verbal group	*said*
nominal group	*her inamoratus*

These groups are all "simplexes"; they contain no logical (paratactic or hypotactic) structures. Examples of group complexes would be:

as soon, or sooner
her inamoratus, the male hippopotamus
one African afternoon at half past four.

c) Word complexes

Note: Verbal, nominal and adverbial groups consisting of more than one element are simultaneously structured both as word constructions (multivariate) and as word complexes (univariate). For example,

	unoiled	*garden*	*shears*	
Logical:	γ	β	α	word complex:
	$\leftarrow$	Modifier	Head	univariate structure
Experiential:	Epithet +	Classifier +	Thing	multivariate structure

System network

word complex
- 'TAXIS' →
  - paratactic
  - hypotactic
- TYPE OF LOGICAL RELATION →
  - expansion
  - identity

Note: The intersection of these two systems yields the following paradigm of word complex types:

	paratactic	hypotactic
expansion	co-ordinate	modifying
identity	appositive	defining appositive

Verbal group *would live*

SYSTEMIC DESCRIPTION	verbal group: (hypotactic/expansion)

STRUCTURAL DESCRIPTION	β: Modifier $\leftarrow \alpha$: Head

Adverbial group *as soon*

SYSTEMIC DESCRIPTION	adverbial group: (hypotactic/expansion)

STRUCTURAL DESCRIPTION	β: Modifier $\leftarrow \alpha$: Head

Nominal group *a (pair-of (unoiled garden shears))*

SYSTEMIC DESCRIPTION	nominal group: (hypotactic/expansion)

STRUCTURAL DESCRIPTION	β: Modifier $\leftarrow \alpha$: Head (α: Head $\rightarrow \beta$: Modifier) ($\gamma \leftarrow \beta$: Modifier $\leftarrow \alpha$: Head)

Verbal group *said* ('did say')

SYSTEMIC DESCRIPTION	verbal group: (hypotactic/expansion)

STRUCTURAL DESCRIPTION	β: Modifier $\leftarrow \alpha$: Head

Nominal group *her inamoratus*

SYSTEMIC DESCRIPTION	nominal group: (hypotactic/expansion)

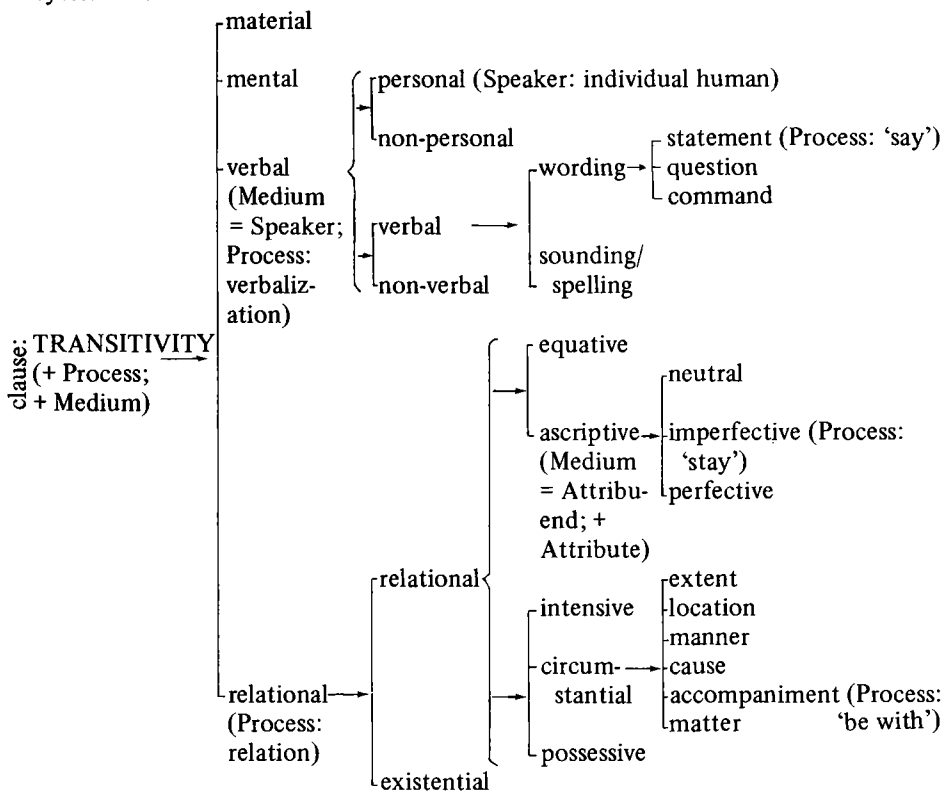
STRUCTURAL DESCRIPTION	β: Modifier $\leftarrow \alpha$: Head

Note: The nominal group *I* can be regarded as having a logical structure consisting of α: Head only. A prepositional group resembles a clause in having no logical structure; see C. Interpersonal, below.

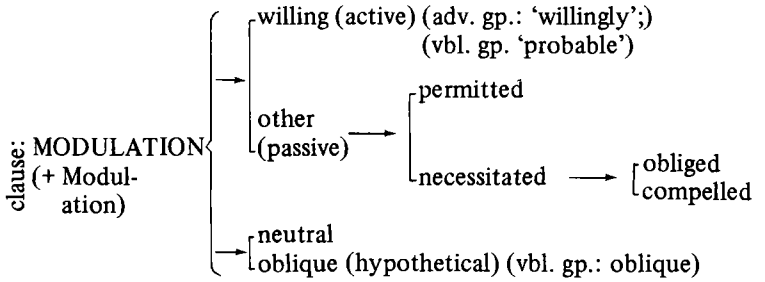
B. Experiential

a) Clauses

System network



In addition, the Process may be accompanied by a Modulation, realized through (by pre-selection in) verbal group, adverbial group, or both:



Clause *I would as soon live with a pair of unoiled garden shears*

SYSTEMIC DESCRIPTION	clause: (relational: relational: ((ascriptive: imperfective) / (circumstantial: accompaniment))) / (modulated: (willing/oblique))

STRUCTURAL DESCRIPTION	Process: relation + Modulation + Medium = Attribuend + Attribute

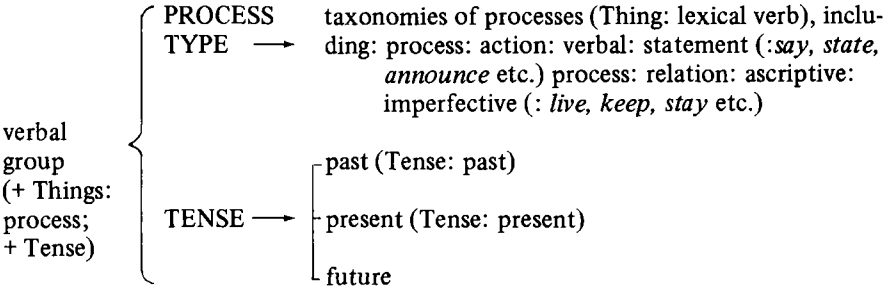
Clause *said her inamoratus*

SYSTEMIC DESCRIPTION	clause: verbal: (personal/ (verbal: wording: statement))

STRUCTURAL DESCRIPTION	Process: verbalization + Medium = Speaker: individual

b) Verbal groups

System network



Verbal group *would live*

SYSTEMIC DESCRIPTION	verbal group: (present / (relation: ascriptive: imperfective))

STRUCTURAL DESCRIPTION	Tense: present + Thing: process

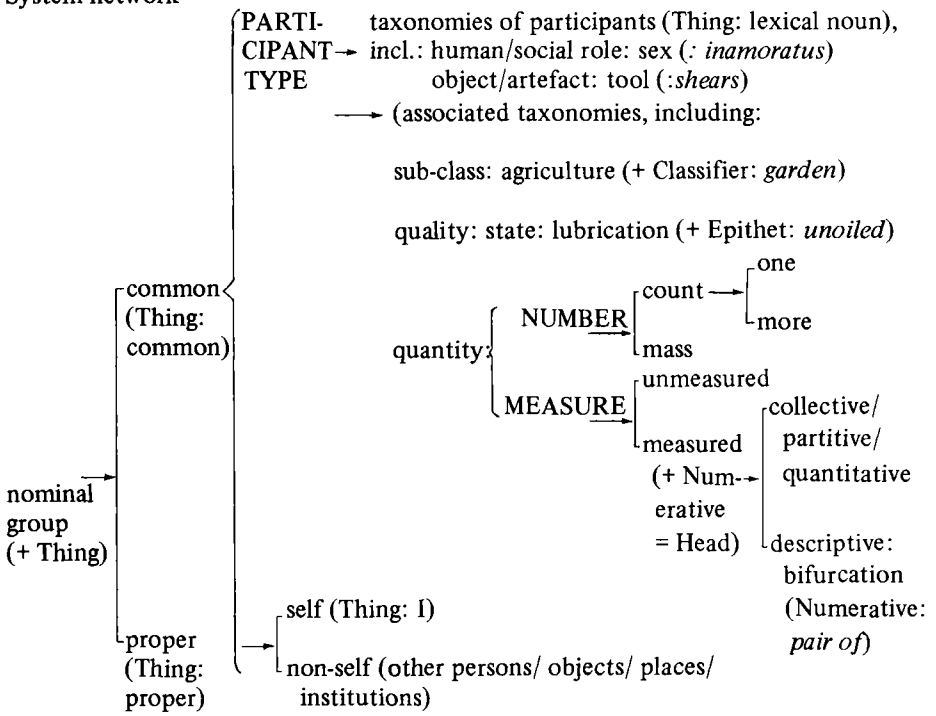
Note: the clause feature 'circumstantial: accompaniment' is realized through the prepositional group, not the verbal group: the option determining this is not represented.

Verbal group *said*

SYSTEMIC DESCRIPTION	verbal group: (past / (action: verbal: statement))

STRUCTURAL DESCRIPTION	Tense: past + Thing: process

c) Nominal groups
System network



Nominal group *I*

SYSTEMIC DESCRIPTION	nominal group: proper: self

STRUCTURAL DESCRIPTION	Thing: self

Nominal group *a pair of unoiled garden shears*

SYSTEMIC DESCRIPTION	nominal group: common: object: artefact: (tool/ agriculture/ lubrication/ bifurcation)

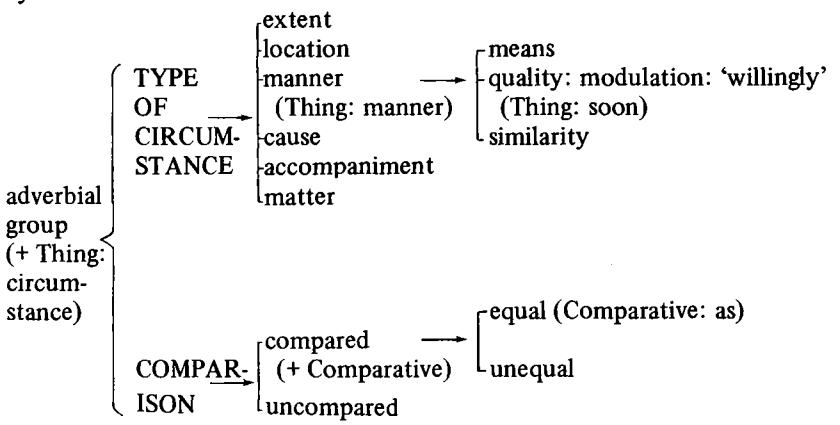
STRUCTURAL DESCRIPTION	Numerative: measure + Epithet + Classifier + Thing: common: object

Nominal group *her inamoratus*

SYSTEMIC DESCRIPTION	nominal group: common: human: social role: sex

STRUCTURAL DESCRIPTION	Thing: common: human

d) Adverbial group
System network

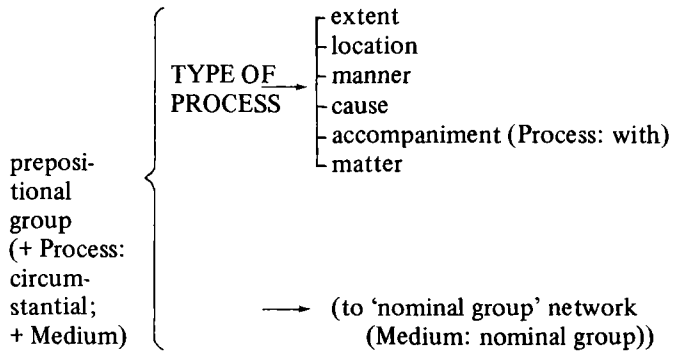


Adverbial group *as soon*

SYSTEMIC DESCRIPTION	adverbial group: (manner: quality: modulation) / (compared / equal)

STRUCTURAL DESCRIPTION	Comparative + Thing: circumstance

e) Prepositional group
System network



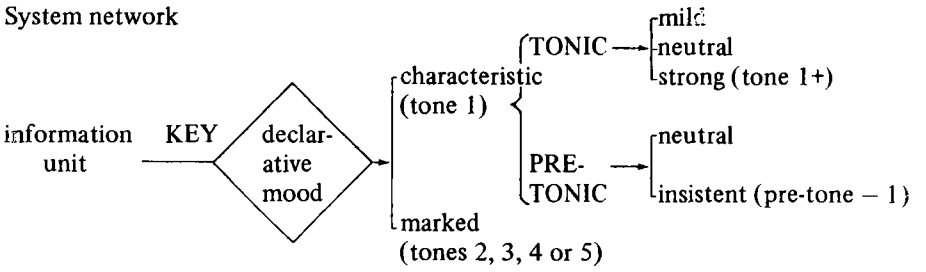
Prepositional group *with a pair of unoiled garden shears*

SYSTEMIC DESCRIPTION	prepositional group: accompaniment

STRUCTURAL DESCRIPTION	Process: circumstantial + Medium

C. Interpersonal

a) Information unit
System network

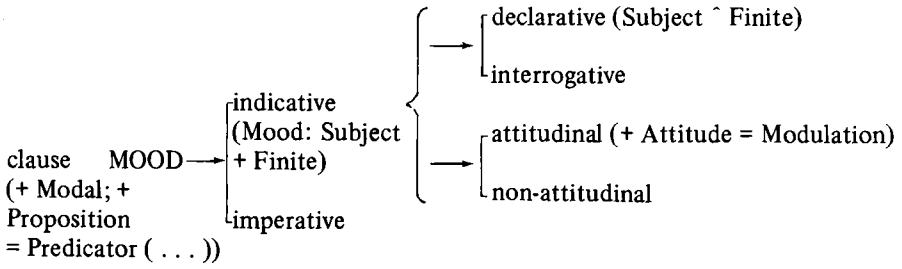


Information unit *I would as soon live with a pair of unoiled garden shears said her inamoratus*

SYSTEMIC DESCRIPTION	information unit: characteristic (declarative) key: (strong / insistent)

STRUCTURAL DESCRIPTION	Pre-tone –1 ^ Tone 1+

b) Clauses
System network



Clause *I would as soon live with a pair of unoiled garden shears*

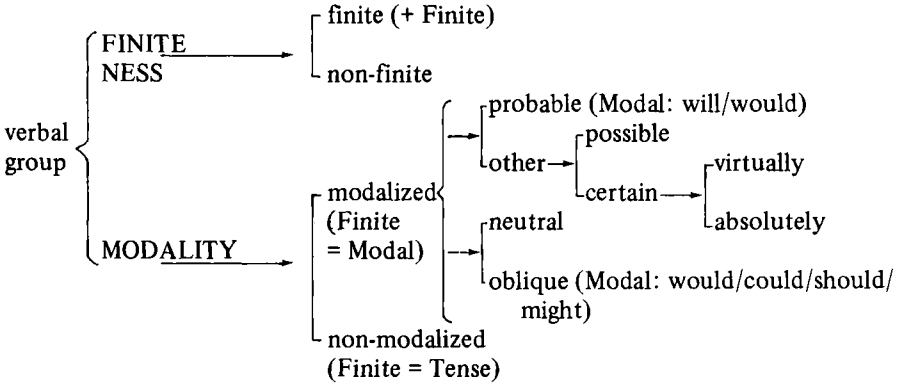
SYSTEMIC DESCRIPTION	clause: finite: indicative: (declarative / attitudinal)

STRUCTURAL DESCRIPTION	Modal ⟨Subject ^ Finite ^ Attitude⟩ ^ Propositional ⟨Predicator⟩

Clause *said her inamoratus*

Note: A clause having the features 'quoting / given' does not enter into the mood system. It is structured as Predicator ^ Subject (optionally Subject ^ Predicator if Subject is personal pronoun); the Predicator is a 'quoting' verb, finite, in simple past or present tense.

c) Verbal groups
System network



Verbal group *would live*

SYSTEMIC DESCRIPTION	verbal group: (finite: modalized: (probable / oblique))

STRUCTURAL DESCRIPTION	Finite=Modal + Predication

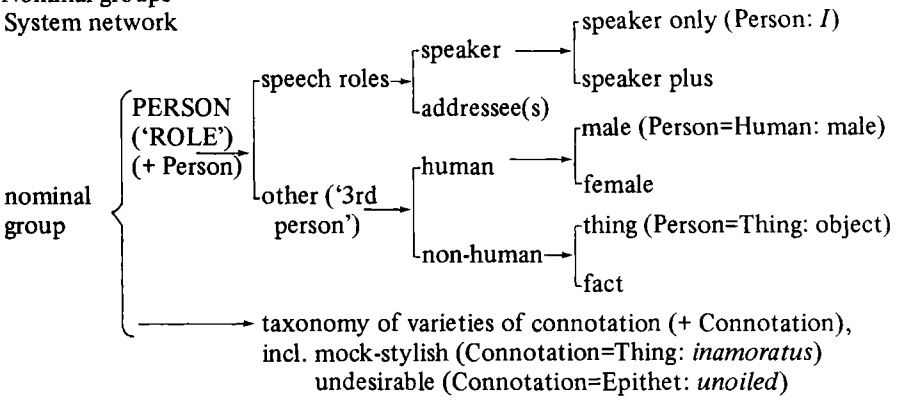
Verbal group *said*

SYSTEMIC DESCRIPTION	verbal group: (finite: non-modalized)

STRUCTURAL DESCRIPTION	Finite (= Tense) + Predication

d) Nominal groups

System network



Nominal group *I*

SYSTEMIC DESCRIPTION	nominal group: speech role: speaker

STRUCTURAL DESCRIPTION	Person: speaker

Nominal group *a pair of unoiled garden shears*

SYSTEMIC DESCRIPTION	nominal group: ((other person: non-human: thing) / undesirable)

STRUCTURAL DESCRIPTION	Connotation (=Epithet) + Person: other

Nominal group *her inamoratus*

SYSTEMIC DESCRIPTION	nominal group: ((other person: human: male) / mock-stylish)

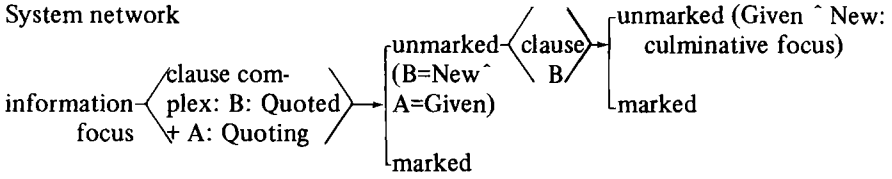
STRUCTURAL DESCRIPTION	Connotation (=Thing) = Person: other

e) Adverbial group: No interpersonal structure

f) Prepositional group: No interpersonal structure

D. Textual

a) Information unit
System network

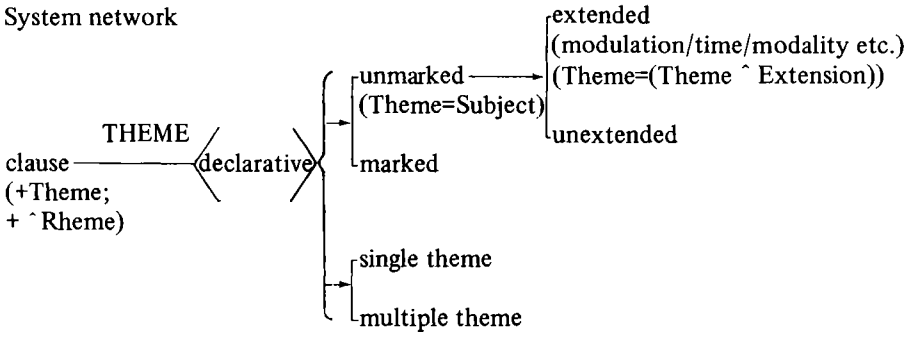


Information unit B: *I would as soon live with a pair of unoiled garden shears*
A: *said her inamoratus*

SYSTEMIC DESCRIPTION	information unit: unmarked (clause complex: quoting) information focus: unmarked (clause) information focus

STRUCTURAL DESCRIPTION	B = (Given ^ New) ^ A = Given; Pre-tonic ^ Tonic (tonic ^ 'tail')

b) Clauses
System network



Clause *I would as soon live with a pair of unoiled garden shears*

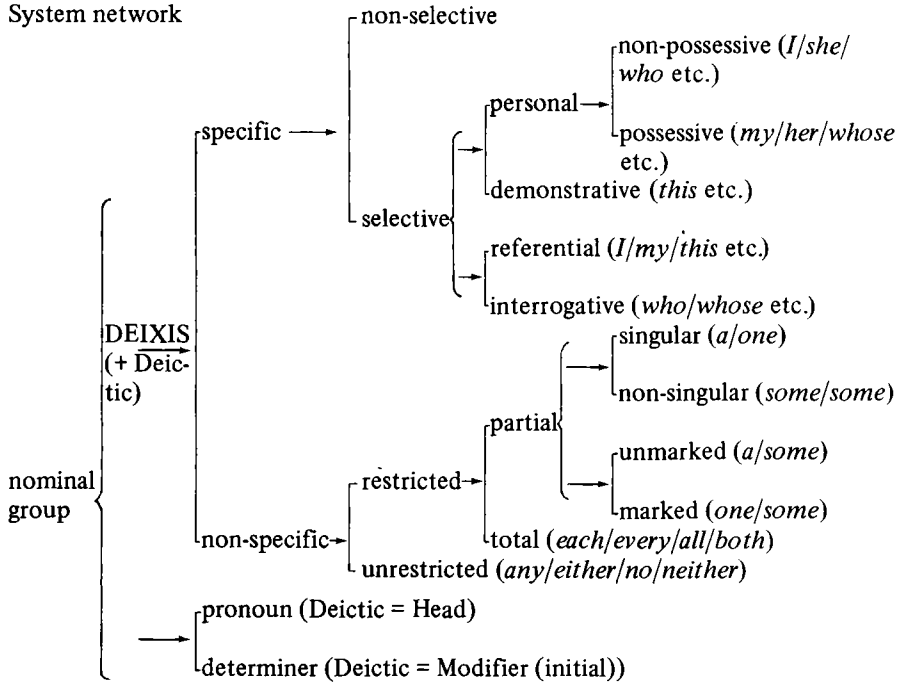
SYSTEMIC DESCRIPTION	clause: ((unmarked (declarative) theme: extended: modulation) / single theme)

STRUCTURAL DESCRIPTION	Theme ⟨Theme ^ Extension⟩ ^ Rheme

Clause *said her inamoratus*
Note: A clause having the features 'quoting/given' does not enter into the Theme system. It consists of a Rheme element only.

c) Verbal groups: No textual systems (see note at end)

d) Nominal groups
System network



Nominal group *I*

SYSTEMIC DESCRIPTION	nom nal group· ((specific selective: ((personal: non-possessive) / eferential)) / pronoun)

STRUCTURAL DESCRIPTION	Deictic = Head: pronoun

Nominal group *a pair of unoiled garden shears*

SYSTEMIC DESCRIPTION	nominal group: (non-specific: restricted: partial: (singular/unmarked) / determiner)

STRUCTURAL DESCRIPTION	Deictic = Modifier: determiner ^. . .

Nominal group *her inamoratus*

SYSTEMIC DESCRIPTION	nominal group: (specific: selective: ((personal: possessive) / referential) / determiner)

STRUCTURAL DESCRIPTION	Deictic = Modifier: determiner ^ . . .

e) Adverbial group: No textual structure

f) Prepositional group: No textual structure

5.2 Generalized structural descriptions

A. Generalized structures by rank

a) Clause complex	*"I would as soon live with a pair of unoiled garden shears"*	*said her inamoratus*
Logical:	B: Quoted	A: Quoting

b) Information unit	// – 1+ ^ *I would as / soon / live with a pair of / unoiled / garden*	*/ s h e a r s*	*said her i/namo/ratus//*
Textual information	Given . . .	. . . New	Given
Interpersonal: key	Pretone -1	Tone 1+	

c) Clause	*I*	*would*	*as soon*	*live*	*with*	*a pair of unoiled garden shears*
Experiential: transitivity; modulation	Participant Medium = Attribuend	Process Process: relation	Modulation			Participant Attribute
Interpersonal: mood	Modal		Propositional			
Textual: theme	Subject Theme Theme	Finite Extension	Attitude	Predicator Rheme		
Combined:	Subject	Predicator	Adjunct (1)		Adjunct (2)	

d) Nominal group
Logical: modification
Experiential: taxonomy of participants
Interpersonal: person
Textual: deixis

I
α: Head
Thing: self
Person: speaker
Deictic: pronoun

e) Verbal group
Logical: modification
Experiential: taxonomy of processes; tense
Interpersonal: finiteness; modality

would	*live*
β: Modifier	α: Head
Tense: present	Thing: process
Finite=Modal	Predication

f) Adverbial group
Logical: modification
Exper.: taxonomy of circumstances

as	*soon*
β: Modifier	α: Head
Comparative	Thing: circumstance

g) Prepositional group

Exper.: taxonomy of circumstances

with	*a pair of unoiled garden shears*
Process: circ.	Medium

h) Nominal group

	a	*pair*	*of*	*unoiled*	*garden*	*shears*
Logical:	β:	α: Head				
	Mod.	α: Head	β: Modifier			
				γ: Modifier	β: Modifier	α: Head
Experiential:		Numerative: measure		Epithet	Classifier	Thing: common
Interpersonal:				Connotation		Person: other
Textual:	Deictic					

i) Clause

	(did) *said*	(say)	*her inamoratus*
Experiential: transitivity	Process Process: verbalization		Participant Medium = Speaker
Interpersonal: mood	Modal Finite	Propositional Predicator	Subject
Textual: theme	Rheme		

j) Verbal group (*said*, =)
Logical: modification
Exper.: taxonomy of process; tense
Interpersonal: finiteness

did	say
β: Modifier	α: Head
Tense: past	Things: process
Finite	Predication

k) Nominal group
Logical: modification
Exper:. taxonomy of participants
Interpersonal: person, connotation
Textual: deixis

her	*inamoratus*
β: Modifier	α: Head
	Thing: common
	Person=Connotation
Deictic	

B. Generalized structure showing all ranks

LXGR:	|||*I*	|*would*	|*as soon* | *live*	|*with*	[*a pair of unoiled garden shears*]	||*said* ⟨did say⟩	|*her inamoratus*	|||
PHON: // −1+‸	*I*	*would*	*as/soon/live*	*with*	*a pair of /unoiled/garden/s h e a r s*	*said*	*her i/namo/ratus*	//
Cl. comp.: LOG.	||| B: Quoted					|| A: Quoting		|||
Info. unit: INT.	// Pre-tone: −1				/ Tone: 1+			//
„ TEXT.	// Given . . .				. . . New	| Given		//
Clause: EXP.	||Medium	|Process	Modulation		| Attribute	||Process	|Medium	||
Clause: INT.	||Modal Subject	|Finite	|Propositional Attitude	|Predicator|		||Modal Prop^{nl} / Finite Predic.	|Subject	||
Clause: TEXT.	||Theme Theme	|Extension		|Rheme		||Rheme		||
Clause: ⟨combined⟩	||Subject	|Predicator	Adjunct (1)	Adjunct (2)		||Predicator	|Subject	||
	n. gp. *I*	v. gp. *would* *live*	adv. gp. *as* *soon*	prep. gp. *with*	n. gp. [*a pair of unoiled garden shears*]	v. gp. 'did say'	n. gp. *her inamoratus*	
Group: LOG. (word compl.)	α: Head	β: Modifier ← α: Head	β ← α		[β←(αα → αβ (αβγ ← αββ ← αβα))]	β ← α	β ← α	
Group: EXP.	Thing	Tense Thing	Comp. Thing	Process	Medium [Numerative Epithet Classifier Thing]	Tense Thing	Thing	
Group INT.	Person	Finite Predic.			[Connotation Person]	Finite Predic.	Connotation = Person	
Group: TEXT.	Deictic				[Deictic]		Deictic	

5.3 A note on the description

Systems in which this sentence does not select, or selects only unmarked options, are omitted from the networks. This includes sub-systems derived by further differentiation: nearly every network is open-ended to the right. The networks therefore give only a partial representation of the systems associated with each unit.

With a few exceptions (e.g. deixis in the nominal group), realizations are shown only for options selected by this sentence. They are shown in parentheses following the option in question. Realizations include insertion of elements, sub-categorization, ordering of elements, and pre-selection of options in systems of lower rank. An example of the last is the realization of modulation in the clause through selection in the modality system in the verbal group and the 'manner' taxonomy in the adverbial group.

Vocabulary enters in as 'most delicate grammar'. Lexical selections are not distinct from grammatical ones; lexical items appear as one form of the realization of systemic options, typically as the last step in sub-categorization. Certain systems thus have the effect of specifying lexical taxonomies. Such taxonomies are like other sets of options in being functionally specific.

It follows from the functional organization of the grammar that the final 'wording' (realization at the lexicogrammatical level) is the product of a large number of selections, simultaneous and ordered. For example, the words *I* and *would* each stands, as realization, at the intersection of a set of options from one or more than one functional component. The order of elements in the clause derives from a combination of options in the mood and theme systems, and so on.

We have stressed the functional organization of the system, and taken the functional components as dominating over the structural hierarchy, or 'rank scale'. This is because we are approaching the lexicogrammar from the semantic end, as the realization of meanings. In fact, the functional organization is clearly predominant in the clause; it is difficult to describe the clause other than as a composition of structural configurations each deriving from its own functional network. As one goes down the rank scale, the perspective changes. In the group structures the functional components are less clearly distinct, and there is more interplay among them. For example, modality in the verbal group represents both modulation (experiential) and modality (interpersonal) in the clause; and modality and tense interact with each other and with polarity. So the verbal group is equally well, or perhaps better, represented as a single system network; likewise the other groups. Systems of the word (not discussed here) can be represented only in this way, except that the logical component of word structure remains distinct. Here we are concerned with text as semantic choice, and so have highlighted the semantic element in the organization of the grammatical system by using a functional interpretation of the structure throughout.

This is not to say that there are no elements of the different kinds of meaning in the makeup of the smaller units, but merely that these do not appear as independent systems and structures. For one thing, there are connotative choices in verbs and adverbs as well as in nouns; note the choice of *said* in contrast to *wuffled* or *gurbled* (not referred to because unmarked). Another example is one already noted in 2.2 above, the contribution of textual meaning to the structure of the group. In the

clause, there is a choice of theme; any element, or combination of elements, can take on thematic value, realized by its being put first. But there is an unmarked choice, depending on the selection of mood: WH-element, finite verb, or subject; this being in each case the characteristic theme of such a clause, 'now this is the element I want supplied', and so on. In the group, there is no c h o i c e of theme; the order of elements is fixed. But it is the thematic principle that d e t e r m i n e s this fixed sequence, and explains why, in the verbal and nominal group, the element that has deictic value comes first: this is the element that relates to the 'here and now'. The thematic feature is present in the structure of the group, although not as an independent option in the way that it is in the clause.

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