

Notes on Transitivity and Theme in English: Part 1

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Notes on transitivity and theme in English

Part 1

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It is planned to publish this paper in three parts, in this and the two subsequent issues of the *Journal of Linguistics*.¹ The three parts will consist respectively of the numbered sections 1-3, 4-7 and 8-10; references to section 4 onwards are thus to forthcoming parts of the paper. Sections 1-3 contain observations concerning transitivity; 4-7 deal with what is here referred to as 'theme', a general term for all those choices involving the distribution of information in the clause; in 8-10, transitivity is reconsidered in the light of certain further problems and of what has been said about theme, and some generalization is attempted.

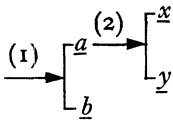
The formulation is in terms of a 'systemic' description (Halliday, 1964*a*, 1964*b*, 1966; Henrici, 1966; Huddleston, 1965*a*, 1965*b*, 1966; Hudson, 1967), in which the grammar takes the form of a series of 'system networks', each such network representing the choices associated with a given constituent type: clause system network, nominal group (noun phrase) system network and so on. A system is a set of features one, and only one, of which must be selected if the entry condition to that system is satisfied; any selection of features formed from a given system network constitutes the 'systemic description' of a class of items. Such a 'selection expression' is then realized as a structure, the structural representation being fully derived from the systemic; each element of the structure is a point of entry into a further system network, so that constituency is based on the concept of 'rank', with minimal bracketing. A more explicit presentation of transitivity and theme in these terms is attempted in the third part of the paper (section 9).

The notational conventions are as follows (references as in previous paragraphs; also Halliday, 1963*a*, 1963*b*):

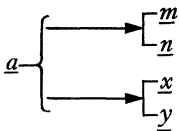
[1] In working on this topic I have benefited greatly from discussions with my colleagues in the Department of General Linguistics. I am also much indebted to R. D. Huddleston and J. Lyons for their valuable comments on the paper.



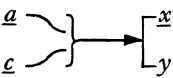
there is a system of features a/b (either a or b must be selected)



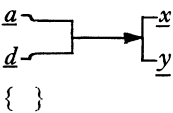
system (1), features a/b , and system (2), features x/y , are ordered in delicacy such that a in system (1) is the entry condition for system (2) (if a is selected, either x or y must be selected)



systems m/n and x/y are simultaneous (having the same entry condition a)



The entry condition for system x/y is compound, being the intersection of a and c (if both a and c are selected, either x or y must be selected)



system x/y has two possible entry conditions, either a or d

enclose a selection expression, or a set of simultaneous features within a selection expression

n/x

n and x are simultaneous

$a:x$

x is ordered with respect to a (a 'dominates' x)

$\{a:\{n/x\}\}$

selection expression in which n is simultaneous with x , both being dominated by a

//

tone group boundary, also always foot boundary

/

foot boundary

(bold type)

tonic syllable in tone group

(Arabic numeral following //)

tone

^

silent ictus ('silent stress' at beginning of foot)

I. TRANSITIVITY

Transitivity is the name given to a network of systems whose point of origin is the 'major' clause, the clause containing a predication; it is thus simultaneous at the point of origin with other networks such as those of mood and theme (Halliday, 1964b). The transitivity systems are concerned with the type of process expressed in the clause, with the participants in this process, animate and inanimate, and with various attributes and circumstances of the process and the participants. None of these is necessarily restricted to expression by transitivity in the clause; process and attribution, for example, may both be expressed in the nominal group, as in *a moving target, a happy girl*.

Process here subsumes both action, or 'doing', including perception, and ascription, or 'being', including description and identification. Structurally, the process is associated with the clause-element P (predicator). Participants are associated with the elements S (subject) and C (complement); attributes and circumstances with the element C. Each of these elements may be further specified by the addition of superscripts: e.g. p^{act} (active predicator), C^{int} (intensive complement). Each element, alone or in combination, realizes a feature, or a complex of features, of the systemic network: thus the feature 'operative' (see below, p. 48) is realized by the element C^{ext} (extensive complement).

The primary elements S and P are inserted in the clause as realizations of features outside the transitivity network, though they may be further specified (superscripted) by certain transitivity features. The element C, however, is inserted by the transitivity network; it is not obligatory, but will be present or absent according to the features selected. The terms 'intransitive', 'transitive', 'single transitive' and 'double transitive' are used to refer to clauses with no C, at least one C, one C and two Cs respectively; they are thus structural and not systemic terms, and they do not figure in the underlying systemic description.

For purposes of presentation, it may be helpful to build up the transitivity network in stages, beginning with what would probably be considered the more fundamental distinctions. Four examples will serve as a starting point:

- (i) she washed the clothes
- (ii) the clothes were washed
- (iii) the prisoners marched
- (iv) she looked happy

To characterize these in informal semantic terms: (i) and (ii) involve directed action, action on a goal, with one or both of two participants, an actor and a goal; (iii) involves non-directed action, with one participant, the actor; (iv) involves ascription, with one participant, the 'attribuant', and one attribute. These labels are not intended, or required, to determine the assignment of items; they refer rather to general notions in terms of "nuclear" instances" cf. Lyons, 1966: 214, 230). Altogether seven such general notions have been postulated here: three process types, directed action, non-directed action and ascription; three participant types, actor, goal and attribuant; and one attribute.

Two of the three process types are each associated with only one participant, non-directed action with actor and ascription with attribuant; structurally, that participant is the subject in each case.² The third, directed action, is

[2] The structural element 'subject' in the present grammar is derived from the mood system, and thus corresponds more to the 'surface subject' of a transformational grammar. The concept of a 'deep subject' is unnecessary (and would be self-contradictory in this context) since the relations it is needed to account for are handled systemically. Cf. below, section 5, and Hudson (1967).

associated with two participants, actor and goal, either of which may be the subject. The four examples could thus be grouped as follows:

Process type:

	(S=actor) (i) she washed the clothes	(S=goal) (ii) the clothes were washed
directed action		
non-directed action (S=actor)	(iii) the prisoners marched	
ascription (S=attribuant)	(iv) she looked happy	

Let us now represent these in terms of grammatical features of the clause, using the following labels:

extensive clause with 'action' process-type

effective clause with 'directed action' process-type

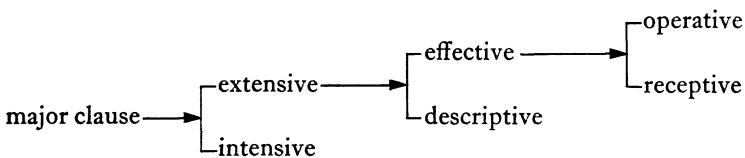
operative clause with 'directed action', subject as actor

receptive clause with 'directed action', subject as goal

descriptive clause with 'non-directed action' process-type

intensive clause with 'ascription' process-type

These features may be organized in systems ordered in delicacy as follows:—



with realizations:³

extensive: predicator selects verb of class 'non-zero' (class 1 or 2)

effective: predicator selects verb of class 2 (e.g. *wash*)

operative: predicator is active; extensive complement present

receptive: predicator is passive

descriptive: predicator is active, selects verb of class 1 (e.g. *march*)

intensive: predicator is active, selects verb of class 0 (e.g. *seem*); intensive complement present

[3] The actual form taken by the superscripts and by the realization statements is not being considered here. For discussion see Henrici (1966), Huddleston (1966).

The systemic description of the four clauses shows which features are selected from the network, ignoring here features not falling within transitivity:

- (i) she washed the clothes {extensive:effective:operative}
- (ii) the clothes were washed {extensive:effective:receptive}
- (iii) the prisoners marched {extensive:descriptive}
- (iv) she looked happy {intensive}

Each of the three primary elements of clause structure, predicator, subject and complement, expresses a variety of different notions from among those above: S may be actor, goal or attribuant, P may be action or ascription, C may be goal or attribute. This is reflected in the lack of direct correspondence between the systemic and the structural descriptions:

- (i) {extensive:effective:operative}
realized as S·P·C, more specifically S_{actor}P_{2,act}C_{ext}
- (ii) {extensive:effective:receptive}
realized as S·P, more specifically S_{goal}P_{2,pass}
- (iii) {extensive:descriptive}
realized as S·P, more specifically S_{actor}P_{1,act}
- (iv) {intensive}
realized as S·P·C, more specifically S_{attr}P_{0,act}C_{int}

It may seem a little unusual to consider *happy* in (iv) and *the clothes* in (i) as realizing the same primary element of structure, the complement. But there are certain generalizations to be made concerning both, for example the proportion *she washed the clothes: the clothes she washed (but not the sheets):: she looked happy: happy she looked (but not excited)* (see section 5); moreover it will be suggested in section 3 that certain elements usually considered as noun predicate (intensive complement) may be better regarded as 'direct object' (extensive complement). It is noteworthy that *she* in (i) and *she* in (iv) likewise express different semantic notions, and yet there seems no adequate reason for denying that they both realize the element 'subject'. The general concept of structural function will be discussed later (section 10); note that here the structural identity is only partial in both cases, since the elements are accompanied by superscripts. In the present discussion, superscripts will be omitted where they are not necessary to the presentation.

Leaving intensive clauses aside for the moment, we may now see what other possibilities there are in clauses with the feature 'extensive'. Let us take as the next examples (v) *he marched the prisoners* and (vi) *the prisoners were marched*. In structural terms this pair is clearly parallel to (i) *she washed the clothes* and (ii) *the clothes were washed*, although there are certain systemic differences: for example *she washed* could mean 'she washed the clothes', whereas *he marched*

could not mean 'he marched the prisoners'. Semantically, in *he marched the prisoners*, since the prisoners (and not 'he') did the marching, we have initiator *he* and actor *the prisoners* rather than, as in (i), actor *she* and goal *the clothes*. With the process-type 'non-directed action' we therefore have three possibilities:

subject as initiator (not actor)	subject as actor (and initiator)	subject as actor (not initiator)
he marched the prisoners	the prisoners marched	the prisoners were marched

In terms of features, we have already distinguished (i) *she washed the clothes*, as operative, from (ii) *the clothes were washed*, as receptive. Since the two process-types 'directed action' and 'non-directed action' are likewise already distinguished, as effective and descriptive, (v) *he marched the prisoners* and (vi) *the prisoners were marched* may be regarded as similarly operative and receptive; whereas in effective clauses the operative has S as actor and C as goal, in descriptive clauses the operative has S as initiator and C as actor. This leaves (iii) *the prisoners marched*, where the subject is both initiator and actor, as a middle type which we may assign to a feature 'middle' giving the picture so far as follows:

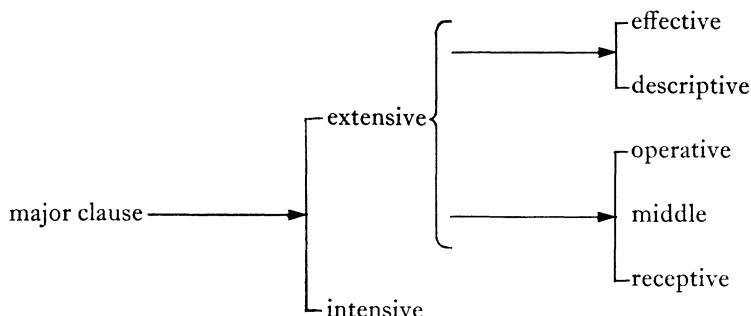
	operative	middle	receptive
effective (directed action)	S actor (i) she washed the clothes		S goal (ii) the clothes were washed
descriptive (non-directed action)	S initiator (v) he marched the prisoners	S initiator and actor (iii) the prisoners marched	S actor (vi) the prisoners were marched

We have now recognized a new participant, the 'initiator'; more importantly, however, we have also recognized a combination of participant roles, where actor and initiator form a single entity, as in (iii). It is in fact as roles that the participants should be regarded, not as types. This prompts the question whether other such combinations occur, and in particular whether the combination of initiator with actor in the non-directed action type is paralleled by a combination of actor with goal in the directed action type. Example (vii) is thus *she washed*, meaning 'she washed herself', where *she* is both actor and goal; this fills out the blank space in the table above, being assigned to the feature 'middle'. The table now reads:

	operative	middle	receptive
effective (directed action)	S actor (i) she washed the clothes	S actor and goal (vii) she washed	S goal (ii) the clothes were washed
descriptive (non-directed action)	S initiator (v) he marched the prisoners	S initiator and actor (iii) the prisoners marched	S actor (vi) the prisoners were marched

The nature of the distinction between descriptive and effective, and the questions posed by verbs such as *drive*, *change*, *cook*, will be discussed more fully in section 8. The effective is not restricted to inanimate or non-human goals; thus *the barber shaved him* is type (i), *he was shaved* type (ii). For the ambiguity of type (vii), as contrasted with the non-ambiguity of type (iii), see below.

It now appears that we should redraw the system network as follows:



But this assumes the non-existence of certain clause types which would be semantically perfectly acceptable, so that the possibilities should first be examined. In terms of the process types and participant roles recognized so far, the total number of possible clause types might be expected to be as follows (discounting for the moment combinations of roles):

Process type	Participant roles
A directed action	—
B „ „	goal
C „ „	actor
D „ „	actor + goal
E „ „	initiator
F „ „	initiator + goal
G „ „	initiator + actor

H	directed action	initiator+actor+goal
I	non-directed action	—
J	„ „ „	actor
K	„ „ „	initiator
L	„ „ „	initiator+actor

plus, with the addition of the intensives ('ascription' process-type):

M	ascription	—
N	„	attribuant
O	„	initiator
P	„	initiator+attribuant

Once it is allowed that the expression of any given participant role is not obligatory, all these combinations are semantically 'sensial'. In fact however the rules of English impose certain restrictions on the patterns that can occur AS CLAUSE TYPES:

- (1) at least one participant role other than that of initiator must be filled; this eliminates A, E, I, K, M and O.
- (2) in 'directed action' the roles of actor and initiator are always combined; this further eliminates C, D and F (for the causative, see below, section 2, p. 52).

Type P will be ignored for the moment, on the assumption that there is a further rule stating that no initiator can occur in 'ascription'; this will then be reconsidered in section 3 below (pp. 62 ff.). If we now take into account the distinctions, where permitted, between discrete roles and combined roles, this leaves the following eight types:

B	directed action	goal	(ii) the clothes were washed
G	„ „	initiator/actor	(no example)
H	„ „	initiator/actor+goal	(i) she washed the clothes
H'	„ „	initiator/actor/goal	(vii) she washed (= 'she washed herself')
J	non-directed action	actor	(vi) the prisoners were marched
L	„ „ „	initiator+actor	(v) he marched the prisoners
L'	„ „ „	initiator/actor	(iii) the prisoners marched
N	ascription	attribuant	(iv) she looked happy

Note that it is rule (2) above that justifies the grouping together of (v) *he marched the prisoners* with (i) *she washed the clothes*, as both operative. If (2) did not apply, we should have clauses of the type *he washed her the clothes* (meaning

'he made her wash the clothes') which would preclude the recognition of *he marched the prisoners* as being the 'non-directed action' equivalent of *she washed the clothes*. It is this restriction that allows us to convert the semantically skew pattern

Subject as: Process type	initiator	initiator /actor	actor	actor /goal	goal
directed			(i)	(vii)	(ii)
non-directed	(v)	(iii)	(vi)		

into the grammatically regular pattern shown on p. 43.

In clauses of all types, one 'participant' (that is, one participant role or combination of participant roles) is always expressed structurally in the subject. The presence of an element 'subject' in the clause, as was noted earlier (p. 39 n.2) is determined from outside the transitivity systems; the latter then assign to the subject a particular feature representing a participant role or role-combination from the role set 'actor, initiator, goal, attribuant'. The present discussion is confined to clauses that are indicative (not imperative) and unbranched; thus the question of the subject in clauses such as (*John likes brussels sprouts*) but *hates cabbage* and *come here* will not arise. It may be noted, however, that since the underlying description is in terms of features, not of structure, it is not necessary—whether or not there are other reasons for doing so—to talk of a 'zero subject' (an element S realized by zero) in such instances; as far as transitivity is concerned *but hates cabbage* and *come here* have the same features (same systemic description) as *but he hates cabbage* and *you come here* (imperative) respectively.

The subject simultaneously realizes other features derived from the theme system network; see section 5 below. Because of the need to take these into account in any discussion of the agentive passive we ignore for the moment the actor as agent in an extensive receptive (passive) clause with *by* &c., as *he was stung by a wasp*. Such a clause is certainly to be related to, among others, *a wasp stung him*; again this relationship will be displayed by features, not by structure, and the agent is not in the present description regarded as a subject. Insofar as the distribution of roles between subject and complement is concerned, there is an ordering determining which of the roles listed above is expressed, in any given clause type, in the subject: initiator, if present; if no initiator, then actor, if present; if no actor, then goal or attribuant. Thus in the eight clause types so far recognized the participant roles will be distributed structurally as follows:

as subject	as complement
B goal	—
G initiator/actor	—
H „ „	goal
H' initiator/actor/goal	—
J actor	—
L initiator	actor
L' initiator/actor	—
N attribuant	(attribute)

We have spoken above of features being realized by the subject; in fact however we may account for the role of the subject by recognizing, as we have done throughout, features of the clause and showing that these determine the roles expressed in the subject. Thus as we have seen the distinctions that are needed are not those of 'subject as initiator' versus 'subject as actor', &c.; since subject as initiator in a descriptive clause is grammatically equivalent to subject as actor in an effective clause, and so on. Treatment in terms of clause features enables us to generalize by saying that there are in fact three distinct types of subject, or subject functions, determined by the transitivity systems; these could be labelled 'ergative', 'nominative' and 'accusative':

Clause feature	Subject type	Participant role
operative	ergative	actor (not goal) in effective; initiator (not actor) in descriptive
middle	nominative	actor/goal in effective; initiator/actor in descriptive; attribuant in intensive
receptive	accusative	goal (not actor) in effective; actor (not initiator) in descriptive

The terms 'ergative', &c. are brought in merely as descriptive labels; they have no status as distinct features, since the subject function is fully determined by the specification of the features of the clause.

There is one type, that lettered 'G' above, for which no example has yet been given: directed action, with subject as initiator/actor, and no goal. In fact an example of this type has already been cited, in another connection, on p. 41; this is (viii) *she washed*, meaning 'she washed the clothes'. In terms of features, this is effective (directed action) and operative (subject 'ergative'); up to this point therefore it is identical with *she washed the clothes*, and a more delicate distinction is needed to separate these. Since the choice lies between the presence and the absence of a complement as goal, we can label the features in question 'goal-transitive' (*she washed the clothes*) and 'goal-intransitive' (*she washed*,

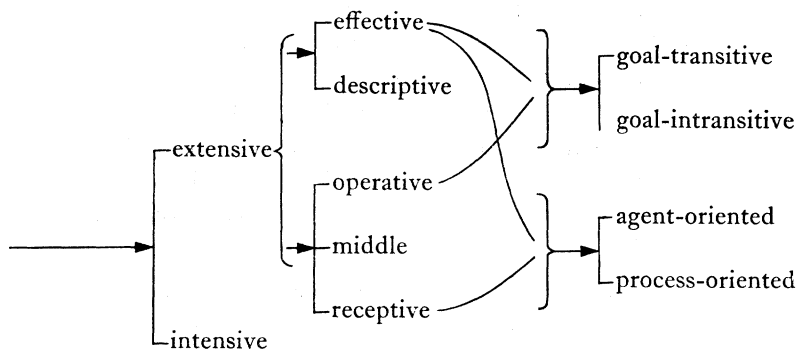
meaning 'she washed (say) the clothes'). It has already been noted that this system applies to effective only; *he marched* can never mean 'he marched (say) the prisoners'.

Finally one further distinction needs to be introduced at this stage, since it falls within the type lettered 'B', directed action with subject as goal. The example of type B was (ii) *the clothes were washed*. We may also have (ix) *the clothes washed*, as in *the clothes washed easily*. This type is especially frequent in simple present tense (*this material washes*), particularly in negative potential, where however the form is *don't/won't* and not *can't*: *this material doesn't/won't wash*; it is not however restricted to these verbal forms, and may in fact occur with any tense, especially with certain *-ly* adverbs, as in *the clothes washed easily*, *these books are not going to sell quickly*. Underlying all these is a feature of characterization of the process as such, either a qualification of it or a generalization about its feasibility; so that we may call the type 'process-oriented' in contradistinction to the 'agent-oriented' type *the clothes were washed*.

We can now summarize these nine types, listing them in the order in which the examples were introduced and giving each a unique description in terms of features:

(i) she washed the clothes	H	effective, operative, goal-transitive
(ii) the clothes were washed	B	effective, receptive, agent-oriented
(iii) the prisoners marched	L'	descriptive, middle
(iv) she looked happy	N	intensive
(v) he marched the prisoners	L	descriptive, operative
(vi) the prisoners were marched	J	descriptive, receptive
(vii) she washed (sc. 'herself')	H'	effective, middle
(viii) she washed (sc. 'the clothes')	G	effective, operative, goal-intransitive
(ix) the clothes washed	B'	effective, receptive, process-oriented

The system network now looks like this:



with realizations rewritten as follows:—

extensive:	P selects verb class 'non-zero'
effective:	P selects verb class 2
descriptive:	P selects verb class 1
operative:	P is active; if descriptive, C ^{ext} is present; if effective:—
goal-transitive:	C ^{ext} is present
goal-intransitive:	(none)
middle:	P is active
receptive:	if descriptive, P is passive; if effective:—
agent-oriented:	P is passive
process-oriented:	P is active
intensive:	P selects verb class 0, is active; C ^{int} is present

For a formal representation of these statements see Henrici (1966), and section 9 below.

We can now rewrite the full systemic descriptions, showing the ordering of the features; here ':' indicates hierarchy, '/' simultaneity, and 'I_i' marks an intersection (e.g. the selection of 'goal-transitive' depends on the intersection of effective and operative). The structural realization is given with appropriate superscripts.

- (i) {extensive : {effective : I₁, goal-transitive / operative : I₁}}
Serg P_{2,act} C^{ext} *she washed the clothes*
- (ii) {extensive : {effective : I₂, agent-oriented / receptive : I₂}}
Sacc P_{2,pass} *the clothes were washed*
- (iii) {extensive : {descriptive / middle}}
Snom P_{1,act} *the prisoners marched*
- (iv) {intensive}
Snom P_{0,act} C^{int} *she seemed happy*
- (v) {extensive : {descriptive / operative}}
Serg P_{1,act} C^{ext} *he marched the prisoners*
- (vi) {extensive : {descriptive / receptive}}
Sacc P_{1,pass} *the prisoners were marched*
- (vii) {extensive : {effective / middle}}
Snom P_{2,act} *she washed* (sc. 'herself')
- (viii) {extensive : {effective : I₃, goal-intransitive / operative : I₃}}
Serg P_{2,act} *she washed* (sc. 'the clothes')
- (ix) {extensive : {effective : I₄, process-oriented / receptive : I₄}}
Sacc P_{2,act} *the clothes washed*

It will be seen that, while each clause type has a unique systemic description, three of them, namely (vii), (viii) and (ix), have the same structural description apart from the superscript on the S. Since, as noted above, this superscript has

no status—it merely restates one feature of the clause in question, and does not determine any feature in the realization (class or sequence of items)—ambiguities arise at this point. An ambiguous item would be *children don't wash easily*, meaning:

as (vii) 'children find it difficult to wash themselves'

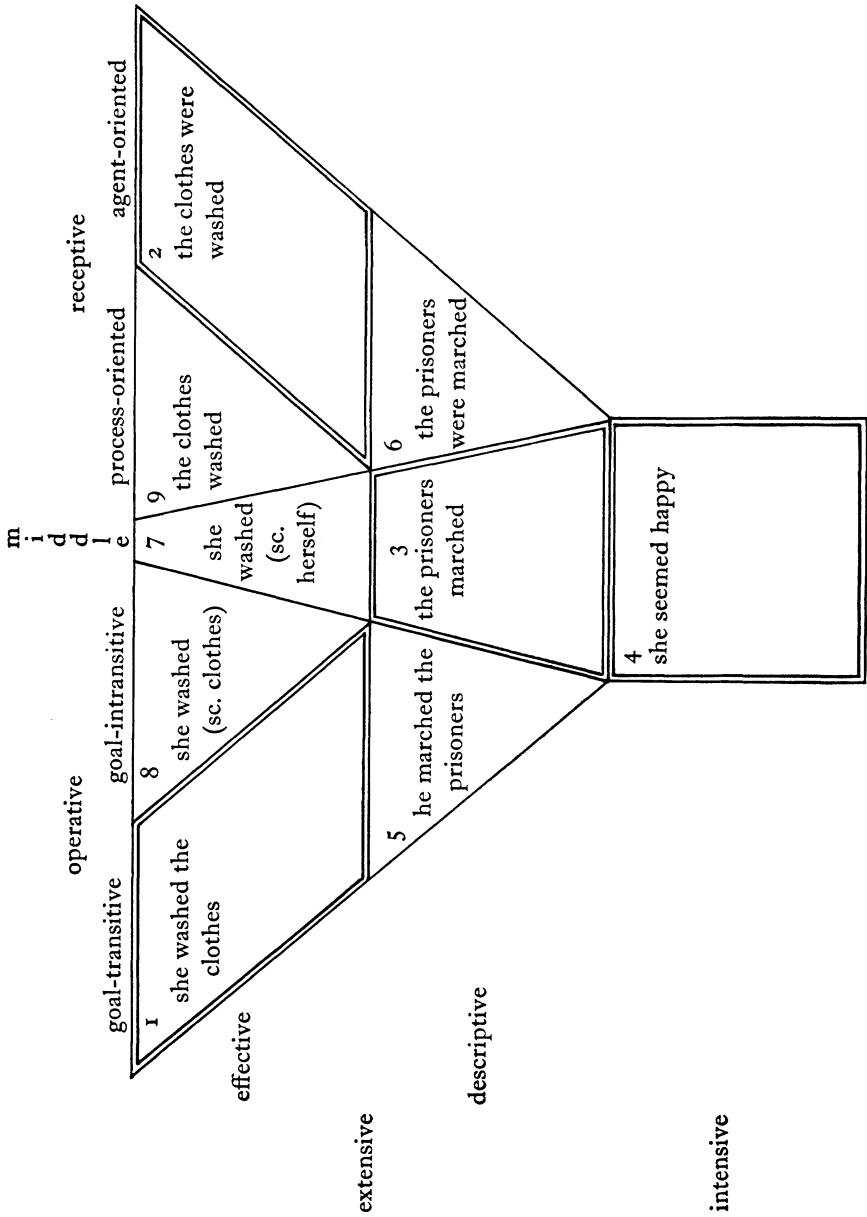
as (viii) 'children find it difficult to wash things'

as (ix) 'it is difficult to wash children'.

The nine clause types can be tabulated in a Y-shaped diagram as seen on p. 50. Boxes 1–4 represent the 'unmarked' types, in the sense that all verbs of the specified class occur freely in clauses with these features, while there is some restriction on occurrence in the 'marked' clause types. Thus for example all class 2 verbs may occur in type (i) and (with a few – at least apparent – exceptions) in type (ii) – note that 'agent-oriented' does not in any way imply the presence of an agentive element in the clause; but types (vii), (viii) and (ix) are much more restricted. Similarly class 1 verbs occur without restriction in type (iii) but not in (v) or (vi). In other words, the normal state of a verb of directed action is to be accompanied by an explicit goal, not identical with the actor; that of a verb of a non-directed action is to have the same actor as initiator.

The kind of restriction associated with the marked clause types is however not easy to state. It could be thought of in terms of sub-classes of verbs, such that for example only certain designated sub-classes of class 2 occur in types (vii), (viii) and (ix). This would appear to hold true for type (vii), the 'middle effective', where the unexpressed goal is identical with the actor (for the special case of *-self* complements, see section 3 below): probably only a few verbs, such as *wash*, *shave*, *dress*, occur regularly here. One could in fact eliminate this type altogether and assign such verbs to class 1 (as well as to class 2), regarding *she washed* (sc. 'herself') as type (iii). But if clauses such as *she flung out of the room*, *hold still*, *he shows off too much*, *he shook free of his pursuers* can justifiably be regarded as grammatical, they suggest that even with respect to type (vii) the 'verb class' approach may not be very helpful.

This appears to be the case even more with the other marked types. Here we are not dealing with absolute restrictions such that certain verbs cannot occur in, say, type (viii), but with restriction in the sense that a verb will only occur in type (viii) in highly specific contexts (and therefore with very low relative frequency). Given such a context, however, it is likely that any verb of the class could occur: for example, type (viii) *I do that because it encourages, he demands all the time*; (ix) *they encourage too easily, they don't demand any more*. At best we can say that certain sub-classes are highly unlikely to occur in certain types, e.g. verbs of perception in (ix), although even here *the bass notes don't hear very clearly* might pass unnoticed.



The restrictions on (vii), (viii) and (ix), together with such tendencies as that of ergative subjects to be animate and accusative inanimate, mean that actual ambiguities (that is ambiguous utterances) are relatively infrequent, although they are by no means unknown; we may perhaps cite two recorded examples, one written and one spoken. London Transport has an advertisement containing the sentence *Car cards sell*; this is type (viii), meaning 'car cards sell things (for the advertiser)' but was misinterpreted by a reader as (ix) 'car cards are for sale'. The utterance *they won't squash* was understood as (viii) 'they won't squash things' when the speaker had intended it as (ix) 'they won't get squashed'.

The real source of difficulty, however, is not the restriction on the marked types so much as the basis of the distinction between class 2 and class 1 verbs. This is taken up, in section 8, in the context of a recapitulation of the earlier discussion; meanwhile we introduce other features from the system network of transitivity. The relevant portions of the network will not be displayed in the following sections but will be presented as a whole in section 9.

2. BENEFACTIVE AND RANGE

2.1 *Benefactive*. So far we have considered only the three participant roles 'actor', 'initiator' and 'goal', these being organized in the grammar of English into three participant types:

- (1) actor/initiator (not goal) in directed action; initiator (not actor) in non-directed action
= subject ('ergative') in operative clauses
- (2) actor/initiator/goal in directed action; initiator/actor in non-directed action; attribuant in ascription
= subject ('nominative') in middle and intensive clauses
- (3) goal (not actor/initiator) in directed action; actor (not initiator) in non-directed action
= subject ('nominative') in receptive clauses, complement ('extensive') in operative clauses

One further entity, the 'attribute', has been mentioned briefly as occurring in intensive clauses as complement ('intensive'); this will be further discussed at a later stage (section 3).

Consideration of these factors has led to the postulation of nine clause types, each representing a unique combination of features which is in turn realized as a particular configuration of structural elements. As was pointed out, a feature that is relevant to the transitivity of the clause is not necessarily realized only in the clause or only in the transitivity system. It is clear for example that, of those so far discussed, the transitivity feature 'operative' in the environment of 'descriptive', as in *he marched the prisoners*, is to be related to a more general

feature 'causative' which may be realized also in *he made the prisoners march* and *he made the prisoners eat*; and such a feature could, perhaps, be shown to be realized in a different way in lexical oppositions such as *die* : *kill*, *go* : *send* &c (see for example the discussion in 3.4 below). A pair such as *he made the prisoners march* and *he marched the prisoners* would share the feature 'causative' but differ in their total feature description in respect of a more delicate choice.

Transitivity is thus being defined in terms of paradigmatic and syntagmatic relations in the clause, not by the classification of verbs as 'transitive' or 'intransitive'. This does not mean that such a classification is irrelevant; the verb classes represent the potentiality on the part of each verb of entering into each of the sets of relations involved. We have already specified three such classes: class 2, verbs entering into 'effective' clauses, the traditional 'transitive' verbs; class 1, verbs entering into 'descriptive' clauses, the traditional 'intransitive' verbs; and class 0, verbs entering into 'intensive' clauses, the traditional 'copulative' verbs. As is well known, very many verbs enter into more than one class; the criteria used here to distinguish these three clause types have been such as to minimize the overlap between the three major classes, and more will be said about this in section 8 below. It will suffice here to note that we could classify any verb according to its potentiality of operating in each of the nine clause types so far recognized; class 2 would then divide into five sub-classes and class 1 into three. Some verbs would still figure in only one class; many, probably the majority, would figure in more than one, but there would be a range of different possible combinations. (Note that nouns also have to be classified with respect to transitivity, according to their potentiality of occurrence as subject or complement in the various clause types, though with fewer restrictions: personal pronouns, for example, cannot occur as complement in intensive clauses.)

In this and the next section we shall consider other relations in the clause that can be brought under the heading of transitivity, and the same considerations regarding verb classes again apply: for any verb it may be asked whether or not it can appear as predicator in a clause having the features in question. Thus the class assignment of any verb is in effect a specification of those clause features which determine its potentiality of occurrence. In this way verbs will be found to group themselves into semantically related sets; the recognition of such sets is merely an extension of the basic principle of syntactic classification involved in the familiar concepts of 'transitive and intransitive verbs'. In general, however, it should be stressed that in English it is the clause types that represent the underlying grammatical selections, and restrictions of particular verbs to occurrence in particular clause types are rarely as absolute as they may at first seem.

The remaining elements entering into transitivity relations in the clause can be thought of as 'circumstantials' of various kinds, fundamentally of four types

which we shall call 'beneficiary', 'range', 'attribute' and 'condition'. The beneficiary is a participant role, the traditional 'indirect object' *John* in *he gave John some coffee*. The range is as it were a circumstantial element in the process, such as *the wall* in *he jumped the wall*. The attribute is an attribute of a participant, the instance already referred to, that in intensive clauses (*happy* in *she seemed happy*), being a special case of this. The condition is a condition of the process but, like the attribute, it relates referentially to one of the participants: *raw* in *you can't eat it raw*. This section will be concerned with the beneficiary and the range.

Semantically we can recognize a participant role of 'beneficiary' in the sense of that which benefits from the process expressed in the clause, e.g. *John* in *he gave John the book* or *pour John a cup of coffee*.⁴ Structurally, this role may be realized in the clause-element 'complement', as in these examples; in that of subject, as in *John was given the book*, *has John been poured a cup of coffee* or in that of adjunct, as in *he gave the book to John*, *pour a cup of coffee for John*.

One might thus recognize a feature 'benefactive' as present in any clause in which the participant role of 'beneficiary' is filled, however it is realized. In many cases, such as the above examples, there is in fact a systemic choice between realization as complement and realization as adjunct: *he gave John the book* | *he gave the book to John*. Moreover the difference in meaning between these two is felt to be very slight, so that it could be accounted for by postulating a single feature 'benefactive' as common to both, the further distinction being shown merely as a more delicate choice within this; benefactive might then be considered as lying altogether outside the transitivity system network.

There are however certain considerations which suggest that the participant role of 'beneficiary' should be, at least in part, accounted for in the context of what we are referring to as transitivity. One is the very fact that it is treated by the language as a participant role, in the sense that it may be realized as an element which is in direct structural relation with the predicator: as a nominal element in the clause, without the intervention of a preposition as 'minor predicator'. Secondly, and more specifically, it can be realized as the subject; even if we regarded *John* in *he gave John the book* as an adjunct, equivalent to *to John* with deleted preposition, we can hardly treat *John was given the book* in the same way. Thirdly, there are some clause-types which will not accept beneficiary complements: for example, *she washed John the clothes* but not *he marched John the prisoners*, *he built John the wall* but not *he jumped John the wall*; and certain of these restrictions, perhaps all of them, are definable in terms of other transitivity features. And fourthly the line between beneficiary

[4] This formulation is intended merely as a gloss on the terms 'beneficiary' and 'benefactive', not precluding their extension to a more general notion; there would appear to be no accepted neutral term appropriate to such examples as *he gave John a dose of poison*.

and goal is not always easy to draw, as in *he taught John French, he told John the news, he played John tennis*.

It seems useful therefore to recognize a distinct feature 'benefactive' within the transitivity system network of the clause, which may, in the feature-environments specified by that network, contrast with a (non-transitivity) feature realized by adjunct with *to, for &c.*, all other features of the clause being constant. This is not to preclude the derivation of both from a more general feature (cf. above on the 'causative'), to which some term such as 'benefactive' could appropriately be applied. The link between the two is provided by the theme systems (sections 4-7): the difference between *he gave John the book* (benefactive) and *he gave the book to John* is shown by the fact that in the former the neutral tonic is on *the book* (so that *the book* is 'new', or, if the tonic is on *John, John* is contrastive), while in the latter the neutral tonic is on *John* (so that *John* is 'new', or, if the tonic is on *the book, the book* is contrastive). There is thus again a parallel here with the 'agentive' (structurally an adjunct) type of actor in a passive construction, the selection of which is likewise determined by the distribution of information in the clause: in *the clothes were washed by Mary, Mary* is 'new', and therefore tonic unless there is contrastive information elsewhere.

In terms of the nine clause types so far recognized, the beneficiary may be present only in effective and in intensive clauses. Within effective, a clear distinction appears between the 'unmarked' types (i) and (ii) and the marked types (vii), (viii) and (ix): the beneficiary occurs regularly in the former – as complement in (i) and, with restrictions, either as subject or as complement in (ii):

- (i) they paid John the money, she washed John the clothes
- (ii) John was paid (the money), has John been washed his clothes
- (ii) the money was paid John

In (viii) the beneficiary occurs with certain verbs only; in (ix) it is barely acceptable, and it is impossible in (vii):

- (viii) they paid John, she promised me, write John
- (ix) (have you told her? –) she doesn't tell (things) easily
- (ix) these things don't tell old people easily

Finally it occurs with one or two verbs in type (iv), intensive:

- (iv) she made him a good wife, it cost John ten shillings

The question arises what principles are involved in these various restrictions.

With regard to the effective, one approach would be to say that only certain verbs of class 2 will accept a beneficiary. Thus *he told the idea to John, he ordered the book for John* are both matched by a benefactive: *he told John the idea, he ordered John the book*; whereas *he praised the idea to John, he reviewed the book for John* are not. Doubtful, perhaps, are *he suggested/explained John the*

idea, he published John the book. But the acceptability of a given item is not in fact determined solely by the verb; apart from the question of whether the beneficiary element is realized by a pronoun (see below), it is often possible to construct acceptable clauses by selecting appropriate lexical items and arranging them in appropriate information structures, e.g. (for conventions see p. 38).

//₄ I've re/viewed / **that** journal //₁ six books al/ready //

The unacceptability of a beneficiary in a clause of type (i) may thus be better regarded as a matter of semantic improbability: one is unlikely to find a beneficiary with certain verbs, such as *beleaguer* or *blemish*, but grammatically the feature 'benefactive' may be regarded as combining freely with the features making up clauses of type (i).

Clearly however certain verbs do combine more readily with beneficiaries, irrespective of the other properties of the clause in question; these are verbs such as *give show sell pay owe charge pass throw hand book keep offer promise tell*, and they can be set apart on syntactic criteria. None of them cannot occur without a beneficiary: not only *he gave a lecture* but also *what did you give as a present? I gave a book* are perfectly acceptable; but the fact that the process they express is one inherently implying a beneficiary is reflected in their operation in thematic structures (see sections 6 and 7 below) where goal on the one hand is separated from process plus beneficiary on the other. Thus *he gave John the picture* is matched by *the picture was given John* and *what John was given was the picture*; whereas while *he painted John the picture* is acceptable, *the picture was painted John* and *what John was painted was the picture* are not. Compare *a good picture to give John* but not *a good picture to paint John*, &c.

The beneficiary is not limited to any class of nouns. While however inanimates do occur regularly as beneficiaries, as in *give that door another coat of paint, loyalty is owed some recognition*, it is no doubt the predominance of human or animate beneficiaries, including here the class of animate-collectives defined by their having concord choice as singular subjects (e.g. *team*), that suffices to resolve the ambiguities mentioned above, so that *he showed me* will be understood as C^{ben}, *he showed it* as C^{ext}. Personal pronouns figure more readily as beneficiary element than any other item: *he expressed me his opinions, I'm indexing them that new volume*.

It seems preferable, however, to exclude some personal pronouns apparently having this function from the status of beneficiary, or at least to separate them within it, regarding them rather as 'ethic datives', on the grounds that those clauses where *only* a pronoun could occur have no corresponding receptive with the pronoun as subject: *I was expressed his opinions* is impossible. Likewise such a pronoun cannot be thematic: *me he gave sixpence*, like *John he gave sixpence*, is possible, whereas *me he expressed his opinions* is not. This contrasts, therefore, not merely with *he gave John the picture* but also with *he*

painted John the picture, since both *John was given the picture* and *John was painted the picture* are acceptable. The famous *elect me him president* is one such; *elect the committee him president* is not possible, nor is *I was elected him president*, although *elect the committee a new president* and *the committee was elected a new president* are quite acceptable. Such 'ethic datives' are thus not treated as fulfilling a participant role, and this seems to be reflected in a rhythmic distinction; true beneficiary pronouns behave like extensive complement pronouns, as enclitics: //₁₃ *give* *me* / *that* //, whereas 'ethic datives', if they occur, seem to be non-enclitic: //₁₃ *drink* *me* / *that* // (see Abercrombie, 1964). Ethic datives are fairly rare, at least in most registers, and are not considered further here.

As noted above, clauses of type (ii) having the feature 'benefactive' are subject to a further systemic choice according to whether the goal or the beneficiary is realized as subject: *the money was paid John*, *John was paid the money*. Of the two, it is the latter, that with beneficiary as subject, that is the unmarked (unrestricted) type; this again is explicable by reference to the 'given/new' information system realized by tonicity (section 4). It has been pointed out that in *he gave John a book* the *a book* is new, whereas in *he gave a book to John*, *John* is new. Now, in this system it is the subject that is characteristically 'given', so that the normal receptive equivalent of *he gave John a book* will be *John was given a book* (whereas with *a book* as subject the operative model is *he gave a book to John*, hence *a book was given to John* is the predicted form.) Thus the restricted occurrence of the type *a book was given John* is not due to its superficial, but in fact irrelevant, resemblance to *he gave a book John* but is due to, or rather correlates with, the rareness of the informationally equivalent // *he gave John* *a book* // (with tonic on *John*). (For the same reason, this type will not accept ethic datives, which cannot be informationally 'new'.)

Thus as already pointed out it is possible to distinguish the class of verbs which are inherently benefactive in meaning as being those that can occur in receptive benefactive clauses with beneficiary complement. It is a sub-class of these that can occur in benefactive clauses of type (viii); thus if *he promised John*, where *John* is C^{ben}, is possible then *a book was promised John* is also possible, although the converse does not hold true, as shown by *the book was sent John*. The other type of receptive, however, with beneficiary as subject, is normally open to all verbs that can occur with benefactive at all: to *they built John a house*, *she chose John a navy blue tie*, *they explained us the whole thing* correspond *John was built a house*, *John was chosen a navy blue tie*, *we were explained the whole thing*. As might be expected, in potentially ambiguous receptives such as *Mary was promised John to help* the natural interpretation is the unmarked one with *Mary* as beneficiary; again, likewise as expected, this would be overridden by assigning *Mary* the tonic. In fact it is precisely in cases where both goal and beneficiary are human that the receptive often seems

less acceptable than the operative (compare *could you meet John his brother at the station* with *could John be met his brother at the station*); nevertheless it is this form of the receptive, with beneficiary as subject, that is in general predictable from the operative (whereas that with beneficiary as complement is not), and since the receptive clearly eliminates the ethic datives it is helpful as a verb class indicator in corroboration of the evidence from clauses of type (i).

Of the 'marked' effective clause types, (vii), (viii) and (ix), (vii) cannot be benefactive. Type (viii) has been mentioned above, as defining a sub-class within the 'inherently benefactive', those which do not require an extensive complement as in *promise me, did you pay John* (these do not occur in type (viii) with 'beneficiary' adjunct: *he gave to charity* but not *he promised to me, he paid to John*). Type (ix), the process-oriented receptives, are likewise restricted to 'inherently benefactive' verbs; they are in any case rare, and hardly less so with beneficiary as subject, as in *men don't give presents easily* (= 'it is not easy to give presents to men'), than with beneficiary as complement, as in *these ties don't sell everybody*: all such clauses are structurally three-ways ambiguous, but the latter type are perhaps less liable to misinterpretation.

So far we have considered only effective clauses; descriptive clauses, in fact, do not normally combine with benefactive, so that, with the exception of some intensives to be mentioned shortly, the feature 'benefactive' presupposes the feature 'effective'. In other words, the admittance of the beneficiary to direct participant status in the clause depends on the action being 'directed', the beneficiary being in this case a kind of secondary goal. Thus *John returned the money to Mary, they surrendered their rights to him* are matched by *John returned Mary the money, they surrendered him their rights*; but *John returned to Mary, they surrendered to him* have no transitive equivalents *John returned Mary, &c.* Superficially, this might be related to the potential ambiguity that would arise if the only complement in the clause could be either goal or beneficiary; but a more pertinent observation – since as we have seen such ambiguity is tolerated readily in the case of effective clauses like *he showed them* – would be (1) that a beneficiary requires, in English, a participating entity to benefit from (the benefit must be 'objectified', in Whorf's sense, although as will be shown below it need not in fact always be a goal), and (2) only when there is also a goal does the need arise to provide for further variation in thematic status (e.g. for either beneficiary or goal as theme), for which the beneficiary must be able to take on the full range of participant functions in the clause (e.g. that of subject).

There remains the question of benefactive intensive clauses. In general intensive clauses cannot be benefactive: there is no *she seemed John happy, she became John a great help*, and this reflects the fact that an intensive complement is not a participating entity but an attribute. Certain clauses, as exemplified by *the mistake cost John dear* (to which there is no corresponding form with adjunct) and *Mary made John a good wife*, would seem to combine beneficiary with

intensive complement. It will be useful, however, to introduce another element before considering further these and other clauses, such as *he taught John French*, in which the status of beneficiary has still been left in doubt.

2.2 *Range*. The beneficiary is, as it were, a kind of secondary goal; it has certain things in common with the goal, in that for example it can function as complement in operative and as subject in receptive clauses, but in other respects it is distinct. Moreover it cannot be co-ordinated with a non-beneficiary element. There is however another kind of 'secondary goal', which can be distinguished from the beneficiary and which is here being labelled 'range'. While the feature 'benefactive' specifies the recipient or beneficiary of the process (or, as we have seen, of an 'object' participating in the process), that of 'range' specifies the extent of its scope or relevance. Thus while the beneficiary is usually animate, the range is usually inanimate. Examples are *he climbed the mountain*, *he played five games*.

Like the beneficiary, the range may have the value of complement or of subject in the clause: *everyone plays football*, *football is played (by everyone)*; and it often contrasts with a prepositional adjunct: *he jumped the wall*, *he jumped over the wall*. But whereas the adjunct contrasting with the beneficiary always has *to* or *for* as preposition, the relation of range to prepositional structures is much less clear: it is not always possible to find a prepositional correspondent (*he ran the race*), while sometimes there would seem to be a number of possible correspondents (*he walked the streets*); in general there is no limit on what preposition might be selected. Range is therefore best treated as a separate feature within the transitivity system, even though the distinction between range and goal is by no means clearcut. While there is an appropriate traditional name for the beneficiary, at least in its status as complement, namely 'indirect object', the nearest equivalent term for range, 'cognate object', seems over-specific not merely in regard to 'object' but also in regard to 'cognate'.

Perhaps the most important fact about the 'range' element is that, unlike goal or beneficiary, it cannot be a reflexive. Whereas in *she washed the clothes*, *John saw the play*, *he threw the ball*, *they encouraged John* the non-reflexive contrasts in each case with a reflexive (non-tonic; for further discussion of reflexives see section 3), this is not true of *he climbed the mountain*, *he played tennis*, *he ran the race*. This is not to say that a reflexive complement always 'makes sense' as goal; but it does make sense to say 'you can't eat yourself' or 'you can't defeat yourself' (you can only defeat other people, eat other objects), it does not make sense to say 'you can't climb yourself, you can only climb mountains'.

This in fact gives a partial clue to the semantic relation between the process and the range. The process here is non-directed action, whereas a reflexive complement would imply a goal (for the combination of range and goal see

below). In some cases, the range is co-extensive with, is indeed merely a nominalization of, the process; here, as in *he sang a song*, the range may be realized by an etymologically cognate item, although this is not necessary (*he turned the corner, he played a game*): 'cognateness' is best thought of as 'extension inherent in the process' leading to a mutual expectancy of collocation between the noun and the verb involved. This does not imply that there is no possibility of contrast: that, linguistically, the only thing that can be sung is a song or that the only thing that can be done to a song is to sing it. It merely means that, as the dictionary says, one meaning of *song* is '(an) act of singing', and it is this feature of range that will be referred to here as 'cognate'. Note that English distinguishes cognate from non-cognate range by not allowing nominalizations of the form *race-runner, song-singer, game-player*: contrast *relay-runner, ballad-singer, tennis-player* (or *games-player*, where the plural shows the different place of *games* from *game* in the taxonomy).

By contrast, the range may be in the form of an entity defining the scope of the process, as in *he jumped the wall, he rowed the lake*. Such non-cognate ranges are not necessarily concrete nouns, nor are the processes themselves necessarily concrete processes; the scope of a concrete process may be defined by an abstract range, as in *he flew the whole distance*; or the process itself may be abstract, as in *he suffered a severe shock*. It is useful however to make a further distinction here between quality range and quantity range. In quality range clauses, such as *he played tennis*, the extension of the process is specified by type; such clauses answer the question *what*, readily combine with certain thematic features as exemplified by *what he played was tennis* and accept nominalizations of the form *a tennis-player*. In quantity range clauses the scope of the process is defined by a measure; quantity ranges are less appropriate as answer to *what* or as 'unknown' element in an 'identifying' clause (see section 6 below) as in *what he jumped was the wall*; moreover they resemble cognate ranges in not being readily nominalizable. The fact that *wall-jumper* is less acceptable than *mountain-climber* reflects the fact that both *he climbed the mountain* (quantity range) and *he climbs mountains* (quality range) are frequent (whereas *he jumps walls* is not).

Within quantity range can be recognized a particular type where the nominal group is itself a 'measure' item, having a measure noun as head, as in *he paid five shillings, he ran five miles*. Such measure nominals are not necessarily range elements: they may be adjuncts, as in *he stayed five hours, it goes five miles*, where the measure item could not be subject; and even when complement a measure item may be not range but goal, as in *he cut off five yards, he bought five lbs.* ('of material', 'of potatoes', &c.). Nor does the presence of a numeral modifying the head mean that the nominal group is necessarily itself of the measure class. Note in this connection the three types *he moved five yards* (quantity range), *he moved five tons* ('of coal': goal, measure nominal), *he moved*

five stones (goal, non-measure nominal); and the ambiguity of *he played five games* ('of tennis': quantity range; 'at school – tennis, football . . .': quality range).

So far we have considered only the possibility of range in descriptive clauses, where the clause is of type (iii) and the range element is always optional. The feature of 'range' may account for a related pattern in which the process, still 'non-directed' action, is entirely expressed in the nominal element, the verb merely specifying that there is a process involved: *he had a bath, he took a dislike, he made a mistake*. Here the range element is obligatory, since the predicator is as it were merely a carrier for it; these may be considered a special case of cognate range, with a neutral verb (*have*, &c.) realizing the predicator in the environment of a range element, complement or subject, embodying the process. Thus *he had a bath* is to *he bath'd* as *she sang a song* is to *she sang*. In some cases either may occur, for example *he played/had a game, they acted/did a play* (earlier *they played*).

Clauses of this type are thus in fact type (iii) descriptive clauses, even though the verbs *have*, *take*, etc. are in other uses class 2 verbs. The fact that they are paralleled by passive forms, such as *no bath can be had after midnight*, does not preclude their being assigned the feature 'descriptive', since as we have seen range-elements can occur as subject in receptive (passive) clauses, and it is in fact the presence of the feature 'range' which makes it possible for class 1 ('intransitive') verbs to occur in the passive, as in *this wall can't be jumped, songs were sung*. There are however also effective clauses with cognate range and a neutral verb. In *he gave the paint a stir, the paint* is superficially a beneficiary; but the action is in fact directed, with 'the paint' as goal, so that in terms of features this is an effective clause, related to *he stirred the paint* as, again, *she sang a song* is to *she sang*. Contrast *he gave the door a coat of paint* where *a coat of paint* is goal, not a nominalized process.

The combination of 'range' with 'effective' is not restricted to clauses of this type. Examples such as *he charged/fined John five shillings, she forgave/envied John his self-assurance*, have *John* as goal (extensive complement) and *five shillings*, &c., as range-complement; the verbs are class 2 and normally require a goal, though *he charged* and perhaps *he forgave* could occur as type (viii) clauses – hence *he charged five shillings* (but not *he fined five shillings*) and *she forgave his self-assurance* (but not, at least, *she envied his job*, though one might accept *she envied his self-assurance*). Here the range is optional: *he charged John, she envied John* are normal type (i) clauses.

At the same time, in descriptive clauses range can combine with benefactive, although restrictedly: in *she sang John a song, she did John a dance, John* is beneficiary not goal (there is no *she sang John*). Somewhere 'in between' *she sang John a song* and *he charged John five shillings*, however, are clauses such as *he taught John French*; here again *French* is a range element, but the question is whether 'John' is goal or beneficiary.

Here all four possibilities occur: *he taught*, *he taught John*, *he taught French* and *he taught John French*; this last is a sort of blend of 'he instructed John in French' and 'he imparted French to John'. Compare *tell* ('inform', not 'narrate'): *he told John the facts* ('notified John of the facts', 'conveyed the facts to John'); *ask* in *he asked John a question*, &c. Both forms of the receptive occur (*French was taught John*, *John was taught French*); nor does the occurrence of *he taught John* indicate that *John* is not beneficiary – compare *he showed John*. But the occurrence of nominalizations such as *class-teacher*, *infant-teacher*, and of thematic variants such as *the one I taught was John*, point to *John* as goal (extensive complement) rather than beneficiary; and one should perhaps also admit a beneficiary in addition, as in *will you teach John his daughter French?* That these are effective rather than descriptive clauses is suggested by the ambiguity of *they teach easily*, type (viii) or type (ix) – so that either *John* or *French* must be a goal, and *he taught himself* contrasts with *he taught John* and not with *he taught French*. Similarly with *tell* and *ask* (with *tell* = 'narrate', however, as in *she told John a story*, *John* is beneficiary: here one cannot have *she told John*); and also *play* in *he played John five games* (contrasting with *she played John the piano* where *John* is again beneficiary, and the clause is effective – if, as seems to be the case, *she played John the gramophone* is unacceptable this is because, while *play the piano* is effective, *play the gramophone* is descriptive (operative, i.e. 'causative')).

Thus the 'objectifying' of the process, through the introduction of a 'range' nominal, allows the presence of a beneficiary: while *she sang John* and *she danced John* are impossible, *she sang John a song* and *she did John a dance* are acceptable. Range specifies the extension of a process, or in some cases specifies the process itself (where the verb is neutral); but it also objectifies it so that it becomes not merely specific, as quantity or quality, but also as it were a 'participant' in the clause, and thus relatable directly to a beneficiary. The difference between *she sang John a song* and *she sang to/for John*, slight though it is, reflects the general tendency of English to incorporate into the clause as nominal elements the main components of the message, so as to maximize the contrastive possibilities of the transitivity and theme systems.

At the same time range and goal remain distinct in certain respects. Range elements cannot take attributes, either depictive or resultative (see below, section 3); thus *he made the box big* (*made* = 'constructed', not 'rendered'), *he saw the street crowded* but not *he made the mistake big*, *he crossed the street crowded*. As already noted, range complements can occur with class 1 verbs; in this they differ from extensive complements, with which likewise they will not co-ordinate. Range elements cannot be, and therefore do not contrast with, reflexive. In general, while the goal is treated by the language as a full participant in the process, the range is still only a pseudo-participant; for this reason while one can readily use the substitute verb *do* when contrasting goals, such substitution is less acceptable in the case of range: thus *no but they are doing*

the pavement could be an answer to *have they dug up the road yet?* but hardly to *have they crossed the road yet?* There does not seem to be a parallel, with range, to the thematic structure *what they're doing to the road is digging it up*; nor – since that also excludes goals of perception – to *heard music* or *a dug-up road*.

3. ATTRIBUTIVE AND CONDITIONAL

3.1 *Attributive*. There remain two types of circumstantial element still to be discussed, namely attributes and conditions. Whereas the beneficiary and the range contrast, in general, with prepositional adjuncts, attributes and conditions contrast rather with adverbial adjuncts or dependent clauses: *she lay drowsy, she lay drowsily; she brought him up an honest man, she brought him up so that he became an honest man; they sell new, they sell when they are new*. Here the transitivity system provides the means for 'objectifying' such circumstantial elements as properties of the participants in the clause.

Attributes and conditions have in common three features which distinguish them from other nominal elements of clause structure.

- (1) They can take only the value 'complement', never that of subject, in the clause.
- (2) They can be realized adjectivally as well as substantivally: that is, by a nominal group having epithet but no head, e.g. *rich* in *he looked rich*. (Contrast here *the rich*, which has structure 'deictic·head' with an adjective realizing the head.)
- (3) They cannot be realized by a nominal group having as head:
 - (a) proper name
 - (b) pronoun other than possessive and reflexive, i.e.
 - (i) personal: *I you he she it we they one*
 - (ii) non-personal: *it there*
 - (c) determiner.

In other respects, however, there are differences between attributes and conditions which suggest that they should be recognized as distinct elements. Attributes will be considered first.

Clauses containing an attribute are said to have the feature 'attributive'. In informal semantic terms the attribute, as the name implies, is a characteristic ascribed to one of the participants in the clause; but it is one that relates specifically to the process in question. In intensive clauses, type (iv) in the nine 'basic' clause types recognized in section 1, the 'process' is itself merely one of ascription; here therefore the participant being characterized is simply what we may call an 'attribuant': his only role, that is to say, is that of bearing the attribute in question. For this reason the attribute is obligatory in intensive clauses; and the structural element by which the attribute is expressed is thus referred to as 'intensive complement', C^{int}. The sense of 'intensive' here is

'having, by definition, the same referent as another element in the clause': for example, *a good teacher* in *she was a good teacher* (as opposed to extensive complement *a good teacher* in *she had a good teacher*). This formulation does not, however, include reflexives, which may be either extensive or intensive: their reference is not determined by the transitivity systems.

The attributive element may also occur in extensive clauses, where since the process is one of action, not of ascription, the participant to which the attribute refers is one which already has another role besides that of 'attribuant'; the attribute is thus never obligatory in extensive clauses. The attribuant in an extensive clause is always the 'pivotal' participant (with 'affected' role: see section 10): goal if the clause is effective, actor if the clause is descriptive. In terms of the three 'participant types' listed at the beginning of section 2, the attribute relates either to a participant of type 3, 'accusative' subject as in *it was washed clean* or 'extensive' complement as in *she washed it clean*, or to one of type 2, 'nominative' subject as in *he jumped clear*. In other words, structurally the role of attribuant in an extensive clause is fulfilled by the complement if the clause is operative and by the subject if the clause is middle or receptive. Note moreover that in an operative clause without complement, type (viii) of the basic clause-types, the attribuant is still the goal even though both these roles, attribuant and goal, are covert – neither is expressed in the constituent structure, as in *this machine washes clean* ('washes things clean').

The feature 'attributive' must then be further specified, at the next degree of delicacy, as a system of two contrasting features which we may call 'depictive' and 'resultative'. The following are examples of clauses having respectively the features 'depictive' and 'resultative' in combination with the feature-sets constituting the nine basic types:

<i>Depictive</i>	<i>Resultative</i>
(i) he drinks his coffee black	he painted the door green
(ii) they are sold cheap	they were knocked flat
(iii) she lay drowsy	the cakes burnt dry
(iv) she was happy	she became friendly
(v) he dropped the tray full	he grew his hair long
(vi) the water was run hot	the well was sunk deep
(vii) he plunged headlong	he rubbed dry
(viii) they broadcast live	the machine washes clean
(ix) it reads quite clear	it pulls tight

The 'depictive' element is an attribute which characterizes the attribuant in relation to the process, but as a concomitant, not a result, of the process; the 'resultative' is one which results from the process. Thus *she sells them cheap* means 'she sells them and, when she sells them, they are cheap', while *she*

washes them clean means 'she washes them and, because she washes them, they become clean'.

As the examples show, the significance of the attribute in intensive clauses (type (iv)), which are inherently attributive, is rather different from its significance in extensive clauses. It will appear later that it is necessary to introduce two further clause types, within intensive, to account for the full range of possible attributive clauses; meanwhile we shall consider some general points relating to attributives as a whole.

In many cases the attributive may, as noted above, contrast with an adverbial adjunct, as in *she sells them cheap*/*she sells them cheaply*. In view of the semantic similarity between such pairs the question might be asked, analogous to the question raised earlier with regard to the beneficiary, whether they should not be regarded as merely alternative structural realizations of the same clause features, such that *she sells them cheaply* would also be said to realize the feature 'attributive' (or, alternatively, *she sells them cheap* would realize a feature 'manner'). This would raise the question whether those with no corresponding adverbial form were to be treated in the same way or not; but in addition to this there are certain other considerations which suggest that such pairs should rather, in fact, be regarded as differing in their selection of features (though, again, with a more general feature in common) and not merely in their structural realizations.

In the first place, adverbial forms such as *cheaply* cannot occur in intensive clauses – that is, in precisely those clauses where the attribute is obligatory: *they seem cheap*, but not *they seem cheaply*. It is thus necessary to distinguish them from adjuncts of the type *in pain*, as in *she seemed in pain*, which are in fact realizations of the feature 'attributive'. Moreover while 'manner' adverbials, like other adjuncts, can be 'theme-predicated' (see section 7 below), attributes in extensive clauses cannot: thus *it's cheaply that she sells them*, *it was very quickly that he drank his coffee*, but not *it's cheap that she sells them*, *it was very hot that he drank his coffee*.

Secondly, the semantic distinction between attribution and manner, while in certain instances it may be largely neutralized, is in fact an important one in English; in attribution the focus is on the participant, in manner the focus is on the process. Moreover the absence of *-ly* forms of such items as colour words and many words of measurement reflects the syntactic significance of the distinction; such items are treated as inherently participant qualities and not as aspects of the process: *it towered high*, *he cut it short*, *it shone yellow*.

Thirdly, the contrast between depictive and resultative is itself reflected in a lack of proportionality with adverbials; *she sells them cheap*: *she sells them cheaply* is not paralleled by *she washes them clean*: *she washes them cleanly*. The manner adverbials, being focussed on the process, cannot carry any resultative connotation, since this implies a change in the characterization of a participant;

while complementarily it is precisely the adjectives that do not accept *-ly* forms that occur frequently as resultative attributes, as in *he painted it green*.

As might be expected, ambiguities arise between depictive and resultative attributes, this providing a hint of the need to recognize this distinction in the grammar. For example, *the water ran hot* is probably usually depictive, since the being hot does not result from the running of the water unless the tap is a long way from its source (that this may however be the case is shown by the imperative *run the water hot*, which is likely to be interpreted as resultative); but *the water ran cold* may regularly be either depictive ('the water ran and it was cold') or resultative ('the water ran so (long) that it became cold'). Both are of course grammatically ambiguous. Other ambiguous items are *she cooked it dry*, *they held the meeting open* and *her hair fell loose*.

Sometimes the presence of an attribute leads to ambiguities among the basic clause types; particularly between type (iv), intensive, and type (ix), extensive effective receptive process-oriented, in those cases where the same verb may be both class 0 and class 2. For example, *she felt warm* is either intensive, meaning 'she seemed warm to herself', or extensive type (ix), in which case it means 'she felt warm to my touch'; in the latter case it contrasts with type (ii) *she could be felt warm* and type (i) *I felt her warm* ('against my body'; for the sense 'I considered her warm' see 3.4 below). Similarly *it keeps fresh* may be intensive, meaning 'it stays fresh', with *keep* class 0 as in *she kept happy*; or it may be extensive type (ix), meaning 'it keeps, and is fresh as a result'. Intransitive *it keeps* can only be type (ix); *it keeps it fresh* may however be either type (i) or a type not yet encountered, referred to in 3.4 below, with fuller discussion, as type (x).

Interestingly, however, such clauses tend in fact not to be ambiguous in spoken English, owing to rhythmic differences in their realizations. Many verbs belong both to class 0 and to class 1 or class 2, thus occurring both in intensive and in extensive clauses, although usually with a clearer semantic distinction than in the case of *keep* and *feel*: class 1 (descriptive clauses) *she grew*, *he turned*, *he went*, *she fell* beside class 0 (intensive clauses) *she grew pale*, *he turned hostile*, *he went bankrupt*, *she fell ill*: class 2 (effective clauses) *he got a new car*, *he turned out good students* beside class 0 *he got wet*, *he turned out a good student*. Again, ambiguities may thus arise between descriptive plus attribute and intensive: *she grew tall* is presumably descriptive resultative 'she grew, thereby becoming tall' rather than just intensive 'she became tall' (contrast *she grew pale*), while *the paper fell flat* may be either type (intensive 'his lecture was a failure', descriptive 'the paper fell on the floor'). But the normal rhythmic pattern has class 0 verbs weak, while verbs of class 1 or 2 are, or contain, salient⁵ syllables, so that intensive (class 0 verbs)

[5] Following Abercrombie's suggestion (communicated verbally) I use 'salient (syllable)' in preference to my earlier 'strong (syllable)'.

// ^ she grew /**pale**// // ^ his re/marks fell /**flat**//
contrast clearly with descriptive (class 1 verbs)

// ^ she / grew /**tall**// // ^ the / horse / fell /**flat**//
and thus likewise (class 0 verbs)

// ^ she felt / **warm** // // ^ she kept / **calm** //
with effective type (ix) (class 2 verbs)

// ^ she / felt / **warm** // // ^ it / kept / **fresh** //

The distinction is less clear with compound ('phrasal') verbs, although even these may be weak when class 0; contrast intensive

// John turned out a / good / **student** //

// John ended up a / **wreck** //

with effective type (i)

// John / turned out / good / **students** //

// John / ended up his / speech with a / **flourish** //

where again ambiguity may arise provided there is a substantival complement. (For the special case of reflexive complements, see below).

3.2 *A note on BE.* This may be an appropriate point at which to refer to the verb *be*, or rather the various verbs *be* in English (discussed further in section 6). We may leave aside the verbal operator *be*, which is a 'fully grammatical' (i.e. closed system) item realizing certain tense and voice features in the verbal group; this has no direct relevance to transitivity. Apart from this item *be*, which resembles other verbal operators such as *have* and *do* in having no lexical meaning, there seems no adequate justification for denying *be* the status of a lexical verb in the language. The fact that it is in certain respects unique is beside the point; so are *have*, *do*, *get* and some others, and it is doubtful whether *be* is significantly 'more unique' than the rest. What is more significant is its non-uniqueness: the fact that it can be clearly assigned in the set of verb classes recognized in the transitivity systems. The complication is merely that – along with many other verbs – it must be assigned to more than one class.

There are in fact three lexical verbs *be*, one class 0, one class 1 and one class 2. Broadly, the class 0 *be* means 'can be characterized as, has the attribute of being'; class 1 *be* means 'exists, happens, is found or located'; class 2 *be* means 'identifies or is identifiable as, can be equated with'. Here we shall consider only class 0 and class 2, the purpose being to show that, while some clauses with *be* are intensive, some are not.

If the question is asked *what is Mary's husband?*, the answer may be *Mary's husband is a teacher*, but not *a teacher is Mary's husband*. To the question *who (or which) is Mary's husband?*, however, may be answered either *Mary's husband is John* or *John is Mary's husband*. (The location of the tonic is discussed further below; it is however fully predictable here, the relevant system being that of

'information' described in section 4). The first set are intensive, with *be*₀; the second set are extensive effective, with *be*₂.

Intensive *be* clauses, such as *John is a teacher*, *John is very rich*, answer questions concerning the attributes or qualities of an attribuant, including definition questions; the WH-form is normally *what* (human or non-human reference), *who* or *how*, and the structure is as follows:

What is John?	John is a teacher
How rich is John?	John is very rich
C ^{int} P S	S P C ^{int}

Here the complement, as always in intensive clauses, cannot be a pronoun or proper name but can be adjectival. Since the clause is intensive, the roles are those of attribuant and attribute; the attribuant, here *John*, being the subject, and the attribute, whether adjectival, like *very rich*, or substantival, like *a teacher*, being the complement. The clause is of the same type as *John became a teacher*, *John seemed very rich* and so on.

Extensive effective *be* clauses, which we may call 'equative', answer questions of identification, normally with *which* or *who*, such as *which is John?* *John is the tall one*. Here the complement, being extensive, can be a pronoun or proper name but cannot be adjectival. The equative relation is however more complex, since it is reversible; clauses of this type in fact display the operative/receptive opposition characteristic of effective clauses, and *be*₂ is thus in effect a 'transitive' verb, although it does not show a morphological opposition of active and passive. To exemplify this it is necessary to indicate the location of the tonic (cf. sections 5 and 6 below), which is shown here in the usual way by bold type. To the question *who saw John?* we may have either of the two answers

who saw John?	everybody saw John	John was seen by everybody
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and in similar fashion

which is John?	the tall one is John	John is the tall one
which is the tall one?	John is the tall one	the tall one is John

In view of the fact that *everybody saw John* pairs with *John was seen by everybody* as operative versus receptive, it is tempting to make the same identification in the other two cases: // John is the **tall** one // would then be the receptive ('passive') of // the **tall** one is John //. In fact, however, in order to know which is operative and which is receptive in such pairs it is necessary to specify the structure of the question; this can be done by taking a pronominal example:

	operative	receptive
which am I?	you're the tall one	the tall one is you
C _{ext} P S		
which is me?	the tall one is you	you're the tall one
S P C _{ext}		

corresponding to

who did John see?	John saw everybody	everybody was seen by John
who saw John?	everybody saw John	John was seen by everybody

the operative being as it were the 'unmarked' answer in each case. The first element in the *be* answers may always be regarded as the subject, as it is in those with *see*; this may be further clarified by examples with the verb *equal* which, while it has a passive, is nevertheless, like *be*, reversible:

what does x equal?	x equals y	y equals x
C _{ext} P < S >		y is equalled by x
what equals x?	y equals x	x equals y
S P C _{ext}		x is equalled by y

Apparently in American English the verb *resemble* resembles *be* in having no morphological passive; presumably therefore to British English

who resembles John?	nobody resembles John	John is resembled by nobody
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(cf. *Mary isn't resembled by any of her children*) would correspond American

who resembles John?	nobody resembles John	John resembles nobody
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where *resemble*, like *be*, remains active in the receptive clause. The absence of a morphological passive does not seem enough reason for denying *be* (or American *resemble*) the status of a class 2 verb, or such clauses the status of effective clauses.

This has the interesting if rather unconvincing effect of making a clause such as *John is the leader* in written English (i.e. where the tonic is not present) five-ways ambiguous in transitivity alone, with one interpretation as intensive and four as extensive. The latter, which we have called 'equative' clauses, are treated more fully in section 6, in the context of a discussion of the special type represented by *the one who did it was John* (it may be noted that it is class 2 *be* which occurs in all thematic constructions of this and similar types – *it was John who did it*, &c.). Here we are concerned simply to make the initial distinction between intensive *be* and extensive *be*, in order more clearly to define the scope of intensive clauses. It may however be helpful to illustrate the total set of possibilities, adding such further comments as are relevant at this point. In the following table, if for purposes of comparison the verb *represent* is substituted for *be* in extensive clauses, it will be active in the 'operative' column and passive in the 'receptive' column, as exemplified in row (2).

Intensive

(1) what is John?	'what characterizes John is the leader John?'
C _{int} P S	

From these considerations the picture yielded by such an analysis of clauses containing the verb *be* may not be entirely farfetched, and it is presented more fully in the later section already referred to (section 6) in terms of features realized in two independent oppositions, of 'known / unknown' and 'value / variable'. Similarly the designation of the elements of the structure as subject and complement is not arbitrary, just as it is not arbitrary to say that *x* is subject and *y* complement in *x equals y* (in section 6 the case is considered – but rejected – for assigning to what are here called the 'receptive' forms the structure C $\overline{\text{P}}\text{S}$). At the same time, whether or not because in almost all cases the distinction between S $\overline{\text{P}}\text{C}$ and C $\overline{\text{P}}\text{S}$ in the question is not present in the realization, so that even if a question is asked this does not by itself indicate whether the answer is operative or receptive, the native speaker is not in general aware of two possible interpretations. Likewise the assignment of tokens in text analysis is often difficult; this is true even in spoken English where, as has been shown, tonicity provides a criterion for only one of the variables in question.

Nevertheless speakers of English do make a distinction where two patterns are available: between for example *which are you?*, which is a 'function' question, enquiring about a role,⁶ and *which is you?*, which is a 'form' question, as in looking at a photograph; and this contrasts sharply with the intensive where only *what are you?* (never *what is you?*) is possible. An explanation in terms of syntactic features seems more satisfactory than merely saying that there are two distinct lexical items *be*, both class 2, one meaning 'represents, identifies, is equalled by' and the other 'is represented by, is identified by, equals'. It may be that the distinction is a fairly recent development in English, correlating perhaps with the change from subject as primarily expression of actor to subject as primarily expressing theme; this might be suggested by the Middle English form *it am I* (Old English '*I it am*'), where *I* is clearly subject, and its replacement by *it is me*, with *it* subject. A clause such as *it is me* can only be extensive, because of the pronoun complement – there is no intensive form such as *it seems me*, *it became me*; while *it is I*, found side by side with *it is me* in the sixteenth century (Brook, 1958: 152), seems to be a transitional blend, analogous to *he hits I* if the structure is $S^{\sim}P^{\sim}C$ and to *him hits I* if the structure is $C^{\sim}P^{\sim}S$, whose persistence in school grammars may perhaps be partly due to the nominative complement in Latin (although in this construction Latin had *sum ego*, cf. Italian *sono io*). Distinguish here // who **is** it // it's **me** // from // who's **it** // (in the game of tig), answer // **I'm** it //, not // it is **me** //, where *it* is a lexical item.

While the postulated ambiguity within class 2 *be* may be open to question, it is clear that the grammar should distinguish between class 2 and class 0, showing all clauses with *be* plus those types of nominal complement which can occur in either as ambiguous. It is well known that an intensive complement is likely to be non-specific while an extensive complement is more often specific: thus *John is a teacher* is more likely to be intensive, *John is the teacher* to be extensive; but this correlation, though significant and needing to be accounted for, is by no means absolute and cannot be used to preclude ambiguity. For example, the clause *the result was a failure* may be either intensive 'the result failed' or extensive 'a failure resulted'; compare *his failure was the result of it*, intensive 'his failure was due to that', extensive 'owing to that he failed'. As a recorded example of an ambiguous utterance: a man talking to his friend spotted a third person whom he thought he recognized and was about to speak to when he discovered he was mistaken – it was a stranger. He turned back to

[6] Note however that the sense of dramatic role-playing does not suffice to identify the class of the clause; a clause such as // Olivier was **Hamlet** // may be either intensive or (either type of) extensive. In intensive *what was Olivier?* *Olivier was Hamlet* (not *Hamlet was Olivier*), Olivier is being characterized by an attribute; while extensive *which was Olivier?* may be either an enquiry as to what role (function) Olivier was playing (operative answer *Olivier was Hamlet*) or a request for a means (form) of identifying Olivier (operative answer *Hamlet was Olivier*).

his interlocutor and said in explanation 'I thought he was a friend of mine'. 'Why,' said the other, 'what's he done to you?' The hearer, that is, understood the remark as meaning that the person had performed some unfriendly act; in other words, he misinterpreted a class 2 *be*, extensive, as a class 0 *be*, intensive clause. The distinction has some partial parallels in other languages; one might cite, as corresponding to intensive, French *il est professeur*, Czech instrumental complement, Chinese verb either *dang* or *shi*; to extensive, French *c'est un professeur*, Czech nominative complement, Chinese verb only *shi*. Note here also the possibility of co-ordination within but not (except zeugmatically) across types: *John is both a teacher and highly competent* but not *the teacher is both John and highly competent*. So also with class 0 clauses such as *a cat is a mammal*, *to do this is to desert the cause: a cat is a mammal and also carnivorous*, *to do this is cowardly if not actually to desert the cause* – but not *John is the tall one and also fat*, &c.

A discussion of class 1 *be* would be out of place here, since it involves consideration of other issues such as (weak) *there* in thematic constructions; *there* is frequently associated with class 1 *be* but is not diagnostic of it (in *there's John who's seen the play*, for example, *be* is *be*₂). Basically, *be*₁ means 'exist' or 'happen', as in *time was when . . .*, *there was an earthquake in Greece last week*, and so on; *there* occurs likewise with other class 1 verbs, as in *there followed an argument*. It may be useful here merely to note the distinction between *John was in trouble* (class 0, intensive with attribute) and *John was in the garden* (class 1, descriptive, with locative adjunct).

In general terms, as has already been pointed out, it is to be expected that a verb will often be assigned to more than one transitivity class; in this respect there is nothing unusual in the present treatment of *be*. The suggestion is that at this level of abstraction it is in fact the categorization derived from the transitivity systems that accounts for the potentialities of *be* as it does for those of other verbs. We may now go on to consider certain other points relating to the feature 'attributive', from which the discussion of *be* started.

3.3 *Reflexives*. It has been noted that the attribute may be substantival, but that it cannot be a non-reflexive pronoun. It can however be a reflexive pronoun, as in *he seemed himself*, *he felt himself (again)*. Since the referent of an attribute is the same as that of its attribuant, it is natural that the pronominal attribute must be reflexive; the interesting consequence of this, however, is that since the reflexive is not here in contrast with non-reflexive pronouns it is not operating within the pronominal system, and therefore it is treated by the language as a lexical item – it carries the unmarked tonic. The reflexive complement in extensive clauses, which does contrast in the pronoun system, is treated as a grammatical item and does not carry the tonic; thus there is no ambiguity between intensive

// $\wedge$ he felt him/**self** // ('he felt well again')

and extensive

// $\wedge$ he / **felt** himself // ('to see if he was bruised')

(The fact that this can, as always, be overridden by marked tonicity, as in // $\wedge$ he / **felt** him/self // ('though he didn't look himself') and // $\wedge$ he / felt him/**self** // ('though he didn't bother to see if the other chap was hurt') does not affect the validity of the observation; note that there is still usually a rhythmic distinction.) All intensive complements, in fact, are lexical items, and carry the unmarked tonic even if non-final: contrast // $\text{I } \wedge$ he / sent the / book to / **Mary** // with // $\text{I } 3 \wedge$ he looked / very / **happy** to / **Mary** //.

There is thus no system of reflexivity associated with intensive complement, although there is with extensive complement and beneficiary (not with range). There is however a particular use of reflexive complement in clauses having the feature '(attributive:) resultative'. Referring back to what was said about the role of 'attribuant': the attribuant always combines its structural role with what we have called the 'pivotal' participant in the clause: goal if the clause is effective, actor if it is descriptive (and therefore in both cases the attribuant figures as complement in operative and as subject in middle and receptive clauses). Thus in descriptive middle clauses which are also resultative, the attribuant is the actor (here also initiator), as in *he jumped clear, the water ran cold, the cakes burnt dry*; in the operative, where initiator is separate from actor, the attribuant is again the actor: *he jumped the horse clear, he ran the water cold*.

In effective operative clauses the extensive complement, the goal, may regularly be reflexive, as in *she washed herself, they shut themselves up*. Such reflexive complements may be attributants to resultative attributes in the normal way: *she washed herself clean, they shut themselves up tight*. While with many verbs the type of complement does not affect what we might call the inherent 'intentionality' of the verb, so that *he shot her, he shot himself* are normally both intentional, *he upset her, he upset himself* normally both unintentional, with some verbs the process is more likely to be unintentional with a reflexive complement (and some quasi-reflexives) than with a non-reflexive one: compare *he cut the bread* with *he cut himself (his finger)*, *he deceived her* with *he deceived himself*, &c.

In the descriptives, however, a more complex situation arises. On the one hand, the descriptive operative, with its 'causative' sense, is usually intentional even if the verb in question is inherently unintentional; that is, the action may be unintentional but its initiation normally is not. Contrast *he sank* with *he sank the well*: likewise with resultative, *he sank deep (into the ground)*, *he sank the well deep (into the ground)*. This 'intentionalizing' effect of the extensive complement extends also to reflexives where they occur, again with the possibility of a resultative: *he sank himself deep (into the cushions, into his work)*. Here it is simply the fact that there is a complement, reflexive being merely one instance of this, that

separates initiator from actor and thus makes the initiation intentional; and if the complement is reflexive the initiator is referentially (though not structurally) identical with the actor.

On the other hand, perhaps by analogy with the effectives, the addition of a reflexive complement to a class 1 verb that is inherently intentional may make the action unintentional; and this is used as a device for allowing the addition to a class 1 verb of an unintentional resultative, as in *he shouted himself hoarse*. This occurs, as this example shows, not only with verbs that appear regularly in descriptive operative (i.e. with non-reflexive complement), such as *bounce* – compare intentional *he bounced the ball high* with unintentional *he bounced himself dizzy* – but, rather less rarely, with verbs that cannot accept an extensive complement other than a reflexive one, such as *shout*; compare *he laughed himself sick*, *he ran himself breathless*. (In fact, the reflexive complement does occur with some such verbs in this sense without resultative attribute, but mainly in slang expressions and very informal colloquial.) This device is then further extended to give unintentional resultatives having as attribuant the subject (actor) in an effective clause, as in *he drank himself silly*; he did not in fact drink himself, but the reflexive is required as an attribuant, since otherwise in such clauses the attribuant is always the goal (as in *this machine washes clean*). It thus happens that the addition of a reflexive complement in the clause may have either of two contrary effects. With a class 1 verb that is inherently ‘unintentional’, like *sink*, the operative with (reflexive) complement is ‘intentional’; while with one that is inherently ‘intentional’, like *run*, the form with reflexive complement implies the ‘unintentional’ kind of resultative that is associated with many class 2 verbs with reflexive complement such as *cut*.

While such forms are rare in most registers, and collocationally extremely restricted, it seems desirable to show their relation to the transitivity systems as a whole. This can be summarized briefly as follows. There is no general system of reflexivity for extensive clauses; it is the complement which is reflexive or non-reflexive, and the two may co-ordinate as in *he shot both his wife and himself*. In certain feature environments, however, the reflexive complement does not co-ordinate with non-reflexives in this way, since it does not contrast with other complements but realizes some feature other than (either instead of or in addition to) that of ‘operative’. Four such instances have been suggested, exemplified by (i) *he cut himself*, (ii) *he sank himself ((deep) (into his chair))*, (iii) *he shouted himself hoarse*, (iv) *he drank himself silly*; to these should be added, not so far mentioned because not connected with attributive, (v) *he behaved himself*.

Of these, (ii) in fact does not require further explanation, since its ‘intentional’ interpretation is derivable from the feature combination of descriptive with operative. It may be that class 1 verbs can be classified into ‘intentional’

and 'unintentional'; those that would be unintentional do not normally occur in operative clauses, and *sink* does so only with inanimate or reflexive complement – hence the inability of the reflexive to co-ordinate, which should be possible if the clause is operative (as in *he jumped himself and the horse clear, they marched themselves and their prisoners round the yard*).

(iii) and (iv) need further provision, the same in each case. These clauses are middle, not operative: the reflexive is not an extensive complement and does not contrast with, or therefore co-ordinate with, items which are; and here 'resultative' seems to demand a distinction between 'intentional' and 'unintentional' deriving from that between purpose and consequence clauses. Unintentional middle resultatives then require, in their realization, a reflexive pronoun as attribuant. Thus *he rubbed dry* (middle) has corresponding operatives *he rubbed himself/her/both her and himself dry*; whereas in *he rubbed himself sore*, *himself* is obligatory and non-contrastive – there is no *he rubbed sore* or *he rubbed her sore*.

(v) is similarly middle; one cannot behave anyone else. Here however there is no resultative attribute; the reflexive is merely an alternative realization of the middle form, perhaps on the analogy of operatives such as *control oneself*.

(i) however is operative, and it may be useful to recognize as a sub-class of class 2 verbs those expressing actions that one does not voluntarily perform on oneself; it may be such a class that explains the use of the reflexive in (iii) and (iv) above: *he worked himself ill*, *spent himself bankrupt* on the analogy of *he cut himself*, *hurt himself*.

3.4 *Types of attributive*. So much for this rather lengthy digression concerning reflexive complements. Coming back now to the general question of attributives: it has been shown that the feature 'attributive' must be represented, more delicately, as a system of depictive/resultative. In intensive clauses, where the 'process' is one referred to as 'ascription', the only role of the subject is that of attribuant and the attribute is thus obligatory. In extensive clauses, on the other hand, the role of attribuant is always combined with another participant role (goal in effective, actor in descriptive) and the attribute is thus always optional.

We must now consider a type of attributive clause in which the process is one of ascription, but which recognizes as a distinct participant role an 'ascriber', or 'attributor' as it will be called. This, in other words, is a type of clause in which the role of attributor is separated from that of attribuant, as is initiator from actor in *he marched the prisoners*, with the expected distribution of these roles into subject and complement.

It may be helpful to begin with an ambiguity: *he found her alive*. This may mean 'he found her, and she was alive (not dead)', like *he found her unconscious*, in which case it is an ordinary effective operative clause with depictive

attribute; the process is goal-directed action, *he* is actor and *her* both goal and attribuant. It may however mean 'he found that she was very lively', like *he found her attractive*. Here the process is one of ascription, *he* is attributor and *her* merely attribuant. It is still a clause of the operative type, with corresponding receptive *she was found alive/attractive*; but the process type and participant roles suggest that it is intensive rather than extensive.

Such clauses may in fact be regarded as operative and receptive intensives, thus filling out the bottom corners of the diagram on p. 50. Clauses so far labelled 'intensive' would then contrast with these as the 'middle' type, as follows:

INTENSIVE

<i>operative</i>	<i>middle</i>	<i>receptive</i>
they think her happy	she seems happy	she is thought happy
they make her happy	she becomes happy	she is made happy

We may label the intensive operative type (x) and the intensive receptive type (xi).

Such an account is not without difficulties. Very few class o verbs (*be*, *become*, &c.) in fact occur in operative and receptive: *get* does (*she got angry*, *he got her angry*, *she was got angry*) and *turn* (*he turned hostile*, *this turned him hostile*, &c. – although in *the sun turned the milk sour*, *turn* is in fact class I, since besides *the milk turned sour* we have *the milk turned*, showing that these are descriptive not intensive), but few others. While it may be reasonable to regard *made* in *he made her happy* as the realization of *became* in operative clause, standing for *he became her happy* (and similarly paired lexical items appear in extensive clauses; cf. p. 52 above – note that *made* does occur in middle form, as in *she made a good wife*), it is impossible to pair off all such verbs (is *he sent her mad* operative of *she went mad*, for example?) or to decide whether, even if the verb is the same, the clauses are in fact related in the same way (is *he kept her quiet* operative of *she kept quiet*?)

The second difficulty is that it is not always easy to decide whether the complement is merely an attribuant or is also a goal: this is the corollary to the preceding point. For example, in *he drove her mad*, if *her* is goal as well as attribuant there will be a proportion

he drove her : he drove her mad :: she washed it : she washed it clean
and it is not easy to say whether there is or not; compare *he forced it loose*, *he left it late*, *he certified it true*.

Nevertheless there are considerations which suggest that a distinction is to be made here along these lines, even if the type-token assignment is (not unprecedentedly) sometimes unclear. In the first place, there are such operative or receptive clauses in which the attribute is obligatory, for example *he thought her beautiful*; and many others in which it can be said to be obligatory in the sense that if it is not present the verb is clearly different in meaning: *he made*

her happy, he considered her helpful, they called her dishonest and so on. (The tendency in modern English, especially slang, to use such verbs in these senses without attributes – *he forced the lock, the rhythm sent him* – shows that a high frequency collocation of verb plus adjective in the ascription-attribute relation may lead to the verb acquiring the meaning of goal-directed action in just that sense: *force* comes to mean ‘force open’, *certify* ‘certify insane’ and so on.)

Secondly, some of the verbs in question may be phonologically weak (occur non-initially in the foot), and this, as has been noted, is a characteristic of verbs in intensive clauses. Thus // $\wedge$ he found her at/**tractive** // contrasts with // $\wedge$ he / found her un/**conscious** //; compare // $\wedge$ she left him a /**wreck** // (but // $\wedge$ she / left him a / **note** //), // $\wedge$ she made him / **thinner** // (but // $\wedge$ she / made him / **dinner** //).

Thirdly, the fact that the process is ascription rather than action is reflected in the greater freedom of the attribute as regards various thematic possibilities. It has been noted that, in non-intensive clauses, the attribute cannot be ‘theme-predicated’: one cannot say, for example, *it was clean that she washed them*. Similarly one cannot say *clean was what (how) she washed them*; but one can say *happy was what she made him, dishonest was what they called her, attractive was what he found her* – parallel to middle *happy was what she seemed/was/became*. This distinction is not very sharp, and the pattern of acceptability not always clear; but it does serve to suggest that in intensive clauses the attribution is a primary and distinct unit of the message, while in extensive clauses in general it is not.

Looking back at the intensive clauses, type (iv) of the original nine basic clause types, which we shall now call ‘intensive middle’: it was assumed earlier that the depictive/resultative distinction was valid for these as for extensive attributives; that to a pair such as *she sold them cheap, she washed them clean* corresponded the pair *they were cheap, they became clean*. This distinction was shown to be systemic in the extensive environment, but its place in intensive clauses was not discussed. We can now return to this, considering not only middle intensives but operative and receptive intensives as well: i.e. those where there is an attributor, overt or covert, as well as an attribuant.

In a resultative clause, the ‘attributor’ would be semantically equivalent to a ‘causer’: ‘she ascribed to him the resultative attribute of being happy’ = ‘she caused him to be happy’, hence *she made him happy*. With the depictive, however, the ‘attributor’ is rather an ‘imputer’: ‘she ascribed to him the depictive attribute of being happy’ = ‘she sensed him to be happy’, hence *she thought him happy*. In operative and receptive intensives, therefore, ‘depictive’ means really ‘imputative’; but since the two are in complementary distribution – an ascribed depictive attribute, in the environment of an attributor, is an imputed one – they can be considered to be one and the same feature, and no terminological distinction is necessary.

The pattern in operative clauses can be exemplified thus:

	extensive (effective) (<i>no attributor</i>)	intensive (<i>with attributor</i>)
depictive	he found her unconscious 'he found her – and she was unconscious'	he found her attractive 'he considered that she was attractive'
resultative	she made the tea weak 'she made the tea – in such a way that it was weak'	she made the tea weak 'she caused the tea to become weak (by adding water)'

The ambiguity of *it kept it fresh*, mentioned earlier, is thus the same as that of *she made the tea weak*. A 'diagonal' ambiguity is provided by *they brought him alive*: extensive depictive 'they brought him, and he was alive', or intensive resultative 'they revived him'.

In intensive clauses, the depictive/resultative distinction thus corresponds to the more general distinction of 'imputed' and 'causative', from which, respectively, the two transitivity features are derivable. As always, it is the features that show the relationship, so that there is no suggestion of a deleted *be* (*he thought her happy* as structurally related to *he thought that she was happy*, &c.); the lexical items are not identical (*he caused her to be happy* but *he made her happy*, *he said that she was happy* but *he pronounced her happy*; cf. the absence of *they called that she was dishonest*). That the distinction is systemic in the transitivity network is shown in various ways: the two do not co-ordinate in the predicator, for example, so that we may have *she made and kept him happy*, *he believed and feared her mad*, but not *she both drove and considered him mad*, *he neither thought nor made her happy*. Similarly *make her happy!* but not *think her happy!*, *how happy can you make her?* but not *how happy can you think her?* and so on. There may even perhaps be ambiguity here: *she saw him successful* might be either resultative 'she made sure he would be successful' or depictive 'she considered that he would be successful'. (In the middle intensives the distinction is less clear; here also it is probably necessary to recognize resultative and depictive: resultative *she became happy* (*grew, kept, ended up*, &c.), *she got wet* (*fell ill, went mad, turned angry*, &c.); depictive *she was happy*, *she seemed happy* (*looked, appeared, sounded*, &c.). Here also there is in general co-ordination within but not between types. There are however other, cross-cutting distinctions which need separate treatment.)

One type of (depictive) intensive clause that should be noted here is that with 'measure' attribute, as in *it weighed 5 lbs.*, *it cost 5 shillings*, *it measured 5 yards*. These are middle and have no receptive equivalents; there is however a special operative *I make it 5 lbs.*, *5 shillings*, &c., likewise depictive, which seems in some sense to correspond to all of them. These are as it were 'cognate attributes' (cf. 'cognate range' in section 2 above); it seems that those 'ascription'

clauses where the type of attribute is inherent in the ascription (*costs* means simply 'has an attribute specified in terms of money') are somewhat distinct, as are those range clauses where the range is inherent in the process. The quality/quantity distinction within 'cognate' is perhaps paralleled here in forms such as *it costs money*, *it weighs heavy*, although these are highly restricted. Note the unusual combination of intensive with benefactive in *it cost John 5 shillings*; compare (the only other class 0 verb to accept beneficiary complement) *she made John a good wife*. This is perhaps felt as analogous to (goal-directed action plus range) *he charged John 5 shillings* (compare, goal-directed action plus beneficiary, *she made John a good home*); that they are not regular benefactive clauses is shown by the absence of corresponding receptive forms *John was cost 5 shillings*, *John was made a good wife*.

Systemically, therefore, to summarize with one example, *he thought her happy* contrasts directly (i.e. in respect of one feature) (i) as operative, with middle, *she seemed happy*; (ii) as intensive, with extensive *he found* ('came across') *her happy*; (iii) as depictive, with resultative *he made her happy*; and perhaps (iv) as 'non-measure', with 'measure' *he made* ('reckoned') *it 5 shillings*. (Note that all except measure can take reflexive complements in the normal way, as in *she thought herself lucky*; and there is at least one verb which can take only reflexive complement in this feature environment: *he expressed himself content*.) It may be helpful at this point to tabulate examples of the attributive, before turning to the final element, the 'condition'.

3.5 *Condition*. There is one further element, the fourth and last of the 'circumstantial' elements in the clause, which it is useful to distinguish from the attribute; this is what we have called the 'condition'. 'Condition' may be thought of as an abbreviation for 'conditional attribute'. The corresponding clause-feature is 'conditional', short for 'conditional-attributive'. Like the attribute, the condition is realized as an intensive complement.

Within attributive, as we have seen, depictive and resultative are in systemic contrast: a clause cannot have both features at once. Either can however co-occur with the feature 'conditional'; if both elements are present, the condition always follows the attribute in sequence. While the attributive clause is related either (if depictive) to clauses or clause-complexes such as *she sold them cheaply* or *when she sold them they were cheap*, or (if resultative) to those such as *she washed them so that they became clean* or *because she washed them they became clean*, conditional clauses are related rather to clause-complexes such as *if/when they are raw you can't eat them* (*you can't eat them raw*) or *unless it's empty I can't carry it* (*I can carry it empty*). The characteristic tones for conditional clauses are those of the related clause-complexes, for example // 13 ^ you / can't / **eat** them (/ when they're) / **raw** //, // 4 ^ I can / carry it (/ if it's **empty** //). A clause such as *he likes his drink cold* is thus likely to be attributive

Attributive clauses: depictive and resultative
(Examples in roman type are depictive, those in italic are resultative)

effective	operative		middle	receptive	
	goal-transitive	goal-intransitive		process-oriented	agent-oriented
extensive	he drew the line thick	they broadcast (sc. 'things') live	he drove (sc. 'himself') headlong (into ...)	the sentence reads clear	they were bought new
	<i>he rubbed it smooth</i>	<i>this diet makes (sc. 'people') slim</i>	<i>he rubbed (sc. 'himself') dry</i>	<i>the woodwork polishes bright</i>	<i>it was squashed flat</i>
	<i>he scorched himself black</i>		<i>he ate himself senseless</i>		
intensive	he rang the bell loud		he died happy	they were flown armed	
	<i>he stood the table straight</i>		<i>he climbed high</i>	<i>they were crowded tight</i>	
	<i>he dug himself deep</i>		<i>he shouted himself hoarse</i>		
	he found the box heavy		it looked nice	she was presumed content	
	<i>he drove everyone insane</i>		it weighed heavy	<i>she was left speechless</i>	
			<i>it went bad</i>		

(operative intensive, 'he likes his drink to be cold') if tone 1 but conditional ('he likes his drink (only) if it's cold') if tone 13 or tone 4.

Like the attribute, the conditional element relates referentially to one of the participants in the clause. But while the attributive element, although referred to a participant, in fact characterizes the process as a whole, the conditional characterizes the participant in a way that is independent of the process: it merely states the condition of the participant under which the process did or could take place; thus compare attributive *they sell cheap* ('they sell cheaply') with conditional *they sell cheap* ('they sell if they are cheap'). For this reason, the conditional element is not restricted to characterizing the 'pivotal' participant in the clause: it can characterize any participant, including a beneficiary (*you shouldn't have given John that book so young*); and likewise it is possible to have more than one conditional element in the clause, for example *they keep warm naked young* ('they can keep warm (attribute) even when they are naked (condition 1) while they are young (condition 2)'). At the same time, the items that can realize a conditional element in the clause are extremely restricted, as the following examples with clauses of various types will suggest:

<i>non-attributive</i>	<i>attributive : depictive</i>	<i>attributive : resultative</i>
(i) they only take them young	I drink it neat fresh	you can rub it smooth wet
(ii) they can be sold new	it can be held firm dry	they soon cook tender young
(iii) it'll sink full	he can't sit still hungry	it won't set stiff hot
(iv) ———	she looks beautiful naked	she got so thin ill
(x) ———	he found it heavy full	he got them clean new
(xi) ———	they're reckoned more fashionable short	it could be made stronger level

The distinction between attribute and condition may seem somewhat arbitrary; and certainly it may not be very clear to which type a given token should be assigned. Clauses which one might feel to be conditional are often, especially with the sub-modifier *too* present, realized in an intonational pattern which suggests rather an attributive: thus //1 ^ she / died / **happy** // is attributive but //1 ^ she / died / **young** // is, surely, conditional; compare also //1 ^ they / took them / too / **young** //. And it may seem superfluous to assign different features to //1 ^ I / eat them / **raw** // (depictive attributive 'that's how (they are when) I eat them') and //13 ^ I / **eat** them / **raw** // (conditional 'that's the condition under which I will eat them').

On the other hand the distinction does seem to reflect a different status in the clause. 'Attributive' is much more clearly a transitivity feature, as suggested not only by its being obligatory in one class of clause but also by the fact that it

defines a 'pivotal' participant: in any clause there is only one participant that can accept as attribute what is in effect a property of the clause as a whole. This is a further clue, incidentally, to the distinction between goal and range: the range is shown not to be a true participant by the fact that it cannot be the attribuant of an attribute (thus for example in *he left the room*, descriptive with range, the attribuant if the clause becomes attributive can only be *he*, as in *he left the room angry*; contrast intensive operative *he left the room empty* where *leave* has a quite different meaning). The conditional element on the other hand is much more doubtfully a constituent of the clause – although if it is it may be that the reflexive pronoun in such a clause as *I can't do it myself*, which likewise regularly has tone 13 or tone 4, should be regarded as a conditional element.

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