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Part Two: Tools

4 The grammarian's dream: lexis as most delicate grammar[1]

1. The lexicogrammatical stratum

It was over two decades ago that Halliday remarked: 'The grammarian's dream is ... to turn the whole of linguistic form into grammar, hoping to show that lexis can be defined as "most delicate grammar" ' (Halliday 1961, 267). This paper briefly explores the reality of that dream by examining two questions: (1) is the project feasible? and (2) what would be the implications of 'turning the whole of linguistic form into grammar'? This formulation, by implication, rejects the views that (a) lexis is not form, and (b) that its relation to semantics IS unique.

Drawing upon Halliday (1977), I shall make the following assumptions:

(1) Language consists of three strata: semantics, lexicogrammar and phonology.
(2) These strata are related by 'realization': meanings are coded as wordings, wordings are coded as sound patterns.
(3) Each stratum is describable as a network of options; the description is therefore paradigmatic, with environments for options also being defined paradigmatically.
(4) The semantic stratum is organized into four metafunctional components: experiential, logical, interpersonal and textual.
(5) Each metafunction specifies a particular (set of) option network(s) as its output at the lexicogrammatical stratum.
(6) Each act of choice – the selection of each option – contributes to the formation of a structure.
(7) A unified structure in its totality is the output of selections from four distinct (sets of) lexicogrammatical networks, specified by the four metafunctions.
(8) 'It is the function of the lexico-grammatical stratum to map these structures one on to another so as to form a single integrated structure that represents [the output of (R. H.)] all [meta-functional (R. H.)] components simultaneously' (Halliday 1977).

Assumption (6) is immediately relevant. Grammars have traditionally been concerned with describing the formation of syntagms, using the syntagm itself as the starting-point for explaining the syntagm-formation phenomena. The Systemic Functional model has abandoned this approach in favour of one foreshadowed by Saussure (1916), Hjelmslev (1961) and Firth (1951), where the grammar of a language is viewed as a network of paradigmatic relations. If 'systemic options contribute to the formation of structure', and if the description of structure-formation is what characterizes grammar, then such system networks ARE the grammar. The question of feasibility can, then, be paraphrased as: 'Is it possible to extend a lexicogrammatical network in delicacy so as to turn it into a device for the description and generation of units of form called "lexical item"?' If so, then we shall have shown that lexis is delicate grammar.

This argument shifts attention to mechanisms whereby the paradigm and the syntagm – the option network and the structure – are brought into relation. (Henceforth the 'options' and 'networks' referred to are lexicogrammatical ones, unless otherwise stated.) An option can be viewed as instruction(s) to operate in a certain way; a specific structure is the outcome of following these operations. The technical term for such instructions is 'realization statement'. So realization statement is a mechanism mediating between networks and structures.

Six categories of realization statement will be used here:

(1) *insert* structural function *x*;
(2) *conflate* two/more functions into one element;
(3) *order* elements *a* and *b* (and ... *n*) *vis-à-vis* each other;
(4) *subcategorize* some function or feature;
(5) *pre-select* some feature as a concomitant of some insertion/sub-categorization;
(6) *outclassify* some function/feature as incompatible with some insertion/sub-categorization.

This view implies that options have consequences: they are justified by what they 'do'. And, since the doing takes cognizance of relations within the language, an option's justification is intra-linguistic. Simplifying greatly, the options for the description and generation of *enquire* and *ask* might differ in some respects; if so, the justification would not arise from the two activities differing physically, psychologically or socially, but from the differential lexicogrammatical patternings of the two lexical verbs. So ultimately, a delicate network is an enquiry into what Whorf (1956) called 'reactance'.

The network examined here is a minute part of the experiential metafunction's output, known as TRANSITIVITY, whose entry condition is [major] clause. (The technical terms in what follows are used as in Halliday (1985); features are shown in square brackets except in the networks themselves.) Figure 4.1 places TRANSITIVITY in relation to other systems applicable to [major] clause. Systems concurrent with TRANSITIVITY, e.g.

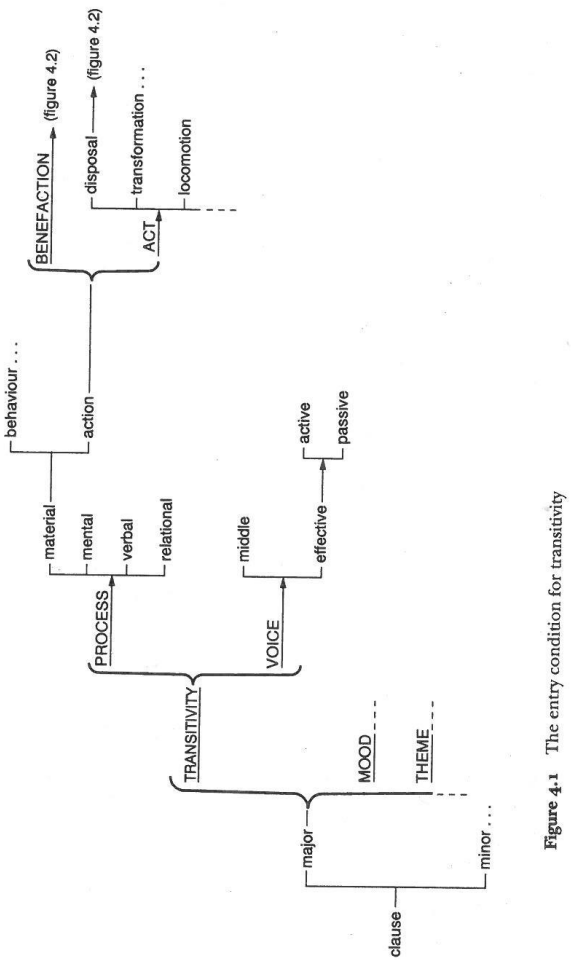

Figure 4.1 The entry condition for transitivity

MOOD, THEME, etc. will be ignored. Within TRANSITIVITY itself, VOICE options will be constantly assumed as [effective: active]. The portion of the network discussed belongs to PROCESS, and it has [disposal] as its entry condition. It is part of the lexicogrammar which constructs the semantic area that can be informally described as 'activities whose completion results in gain/loss of access to things'.

2. The lexicogrammar of acquisition: gather, collect, accumulate

[disposal] entails the options [material:action], which are built into its history, with the implication that the contribution they have made to the formation of the structure remains a constant wherever [disposal] itself is selected. No part of this contribution can be negated by any instruction attached to [disposal] or options dependent upon it. This principle operates across the system, irrespective of the degree of delicacy. Part of the contribution made by [effective:active] VOICE in conjunction with [material:action] PROCESS is:

A:
1. The functions Process, Medium and Agent are inserted
2. Process pre-selects Event
3. Medium and Agent each pre-select Thing
4. Event is subcategorized as /material action/

By virtue of having to follow a particular systemic path, the selection of [disposal] inherits the bundle specified in A1–4. This I shall call PI, for 'systematic path inheritance', to keep it distinct from SI (semantic inheritance) (Brachman 1979; Collins and Quillian 1972) and 'conceptual dependency' (Schank 1972; 1975; Schank and Abelson 1977) in the AI literature. PI differs from both, in that it is not item-centred and is more rigorously defined. To see how PI works, imagine a network with options 1 through 7 as in Figure 4.1a. If (a, b) are the contribution of [1], (c, d) of [2], and (e, f) of [3], then the PI for [2] and [3] is (a, b); for [4] and [5], (a, b, c, d), and for [6] and [7] it is (a, b, e, f). Each progressive step in the network specifies both identity and uniqueness between classes of structures. When the network reaches a point where further uniqueness cannot be postulated, this is the logical endpoint; and the total selection expression – i.e. path specification – will, among other things, specify some formal structure(s) known as 'lexical item(s)'. The uniqueness of each lexical item is widely recognized (Berry 1977; Fawcett 1980; Fillmore 1977; Leech 1974; Lyons 1977). In this chapter I begin by concentrating on the identities of, for example, *give, share, collect, lose,* etc. and work toward their uniqueness.

The realization statements attached to [disposal] are:

B:
1. subcategorize Event as /(material action) of disposal involving change in location of Medium/
2. subcategorize Medium Thing as /alienable object/

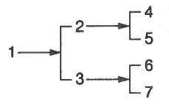

Figure 4.1a A simple system network

3. subcategorize Agent Thing as /human, person(s) or institutions/

For lack of precise formal information, subcategorization is expressed informally. It should not be confused with Chomsky's selection restriction rules (1965): the latter operate on items; possess directionality, e.g. assign 'features of the Subject and Object to the Verb'; (1965, 92); and their non-observance leads to linguistic malaise. None of these is necessarily true of subcategorization. However, if B1–3 are not followed, the semantics of the resultant clause would be distinct from that of a clause whose underlying selection expression contains [disposal]. Consider:

(1a) Susan collected a lot of leaves.
(1b) The roof collected a lot of leaves.
(1c) She collected her thoughts.

(1a) is in keeping with B1–3; most speakers will 'read' it as Susan gaining access to a lot of leaves when the collecting is done; Susan is the 'doer', and the leaves are 'done-to'. In (1b), instruction B3 is not followed; the Agent is not human. Note that the roof is no longer 'doer', but 'location'. (1b) contains a grammatical metaphor (Halliday 1985), whose congruent pair would be *A lot of leaves collected on the roof.* The non-following of B3 will not always produce the semantic value of 'location' for the Agent (compare *These pipes distribute steam into the system* or *Her room carries the most amazing trash*); it will, however, produce a metaphorical effect. In (1c), B2 is not followed: the Medium is not an object, but rather a concept/abstraction. The clause is a good example of Whorf's 'objectification' (1956), where something itself not an object is treated as such. In English, a standard objectifying device is to use an abstract noun as the Medium of a Process, which normally requires a concrete noun as Medium. But this Medium-like thing, e.g. *her thoughts* in (1c), is not the Medium, as it would fail most of the heuristic tests applicable to that function. (Consider *What is she doing to her thoughts? – Collecting them* and *It is your thoughts you need to collect.*) (1c) is an instance of a complex metaphor, where the entire expression *collect + ... thoughts* must be seen as a unit, since in another such occurrence *collect* may bear little or no resemblance to *collect* in (1c). (Consider *She collected a good deal of kudos from that.*) This discussion, incidentally, justifies the validity of B1–3.

The system of BENEFACTION applies concurrently with that of ACT and is developed in Figure 4.2 below, where the systems dependent on [disposal] are also presented. This device will ensure that all systemic options relevant to [disposal] can be seen at one glance. The selection of [disposal] will demand the selection of one path from each of the three systems developed in Figure 4.2; while the systems of ACCESS and CHARACTER are directly dependent on [disposal], that of BENEFACTION is entailed by virtue of the dependence of [disposal] on [action].

ACCESS options are concerned with the result of the activity. The selection of [acquisition] implies the Agent's gain of access to the Medium, unless otherwise indicated. [deprivation] implies the reverse – the Agent loses access to the Medium. Indicating PI within brackets as before, the instructions for these options are:

C: 1. [acquisition]
   a. subcategorize Event as /(material action of disposal involving change in location of Medium) leading to Agent's gain of access to Medium/
   2. [deprivation]
   a. subcategorize Event as /(material action of disposal involving change in location of Medium) leading to Agent's loss of access to Medium/

CHARACTER options are concerned with the nature of the activity. The selection of [iterative] implies an inherently repetitive activity, in which the Agent–Medium configuration inherently remains identical; [non-iterative] implies an activity that is not inherently repetitive. The instructions are:

D: 1. [iterative]
   a. subcategorize Event as /(material action of disposal involving change in location of Medium) inherently repetitive/
   b. subcategorize Medium Thing as /(alienable object) divisible.
   2. [non-iterative]
   a. subcategorize Event as /(material action of disposal involving change in location) NOT inherently repetitive/

BENEFACTION options are concerned with specifying the benefit of the activity. [beneficile] implies that the activity is capable of permitting the indication of some benefiting party; [non-beneficile] implies that the activity is not capable of permitting such indication. On [beneficile] depend the options [inherent] or [potential]. [inherent] implies that the benefiting party MUST be specified; [potential] that the benefiting party MAY be specified: the resource is there; it may or may not be taken up.

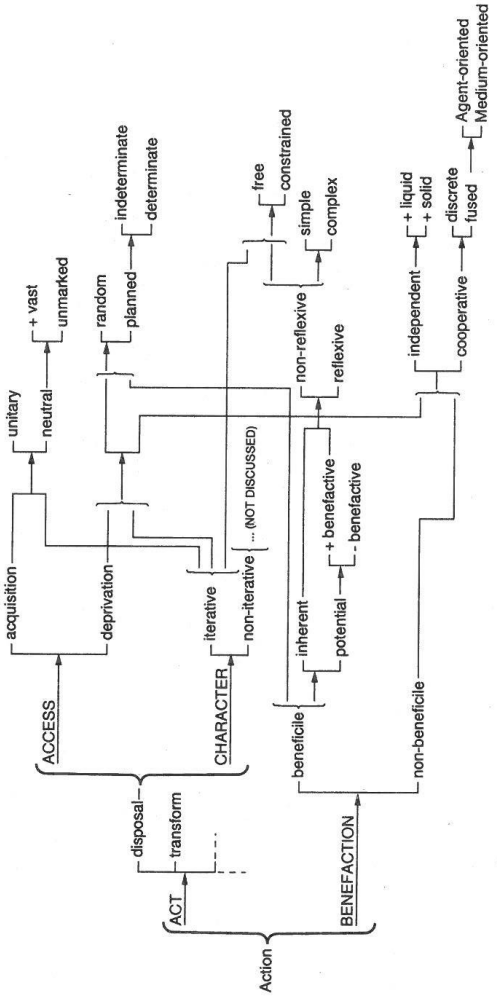

Figure 4.2 The process type [disposal:iterative]

[+benefactive] implies that the resource is to be positively deployed, and a benefiting party is to be specified. [−benefactive] implies that the resource has been passed up, and so no benefiting party is to be specified. When the benefiting party is specified – as entailed by the selection of either [inherent] or [+benefactive] – the option between [reflexive] and [non-reflexive] operates. It is concerned with the specification of the benefiting party's identity. [reflexive] implies that the Agent and the benefiting party are one and the same; [non-reflexive], that they are not the same. The selection of the latter permits the selection between [simple] and [complex] – both being concerned with providing further details about the benefiting party. [simple] implies that only one benefiting party is to be specified; [complex], that two discrete benefiting parties are to be specified. The remaining two options – [free] and [constrained] – will be discussed later. Here I provide the instructions attached to the BENEFACTION options presented so far:

E:
1. [non-beneficial]
   a. subcategorize Event as /(material action) INCAPABLE; of requiring function Benefiter/
   b. outclassify function Benefiter
2. [beneficile]
   a. subcategorize Event as /(material action) CAPABLE of requiring function Benefiter(s)/
3. [inherent]
   a. insert function Benefiter-1
   b. subcategorize Benefiter-1 as Recipient
   c. Benefiter pre-selects nominal group with Thing animate
   d. subcategorize Event as /(material action) NECESSARILY requiring Benefiter/
4. [potential]
   a. subcategorize Event as /(material action) NOT NECESSARILY requiring Benefiter/
5. [+benefactive]
   a. subcategorize Event as /(material action) requiring Benefiter/
   b. insert function Benefiter-1
   c. subcategorize Benefiter-1 as Client
   d. Benefiter pre-selects nominal group with Thing animate
6. [−benefactive]
   a. subcategorize Events as /(material action) not needing Benefiter/
7. [reflexive]
   a. Benefiter pre-selects (nominal group with Thing animate) and co-referential with Agent

8. [non-reflexive]
   a. Benefiter pre-selects (nominal group with Thing animate NOT co-referential with Agent)
9. [simple]
   a. outclassify Benefiter-2
10. [complex]
   a. insert Benefiter-2
   b. Benefiter-2 pre-selects (nominal group with Thing animate NOT co-referential with Agent)
   c. subcategorize Benefiter-2 as Ultimate Client
   d. Ultimate Client pre-selects prepositional group with preposition *for*
   e. conflate functions Ultimate Client and Prepositional Complement
   f. order Prepositional Complement to follow *for*

The notion 'benefiting party' or Benefiter is not self-evident. As Halliday (1985, 135) points out, the Benefiter does not necessarily benefit in the everyday sense of the word as shown by *Jocasta gave Claudius a dose of poison.* Again, in *John drove to the office,* from a common-sense point of view, John could be said to benefit from his driving. So it is important to point out that not only is the function Benefiter at the 'receiving end', but also it is recognized only if there is a dissociation between it and the Agent. The limiting case of the Benefiter is with the option [reflexive], where the benefiting party is co-referential with the Agent (see E7a above). But even here the meaning of Agent^Process^Medium is not the same as Agent^Process^Benefiter^Medium. Consider:

(2a) Susan bought a dress (Agent^Process^Medium)
(2b) Susan bought herself a dress (Agent^Process^Benefiter^Medium)

Although in the absence of Good Reason, (2a) would be interpreted as Susan buying the dress for herself, the possibility is always open that this may not be the case; with (2b) this indeterminacy does not exist. Compare:

(3) Susan couldn't find a better present for Pam,
   (a) So she bought a dress.
   (b) So she bought herself a dress.

Because Susan's buying a dress does not have to be interpreted as Susan buying it for herself, so (3a) in this context can be 'read' as 'she bought a dress as a present for Pam'. (3b) does not permit this reading and will remain odd unless further appropriate speech work is done. The impossibility of conflating the Agent and Benefiter roles is important, as we shall see later. The differences between [beneficile:inherent] and [beneficile:potential:+benefactive] are also important. Consider:

(4) I gave John a book. [beneficile:inherent]
(5) I bought John a book. [beneficile:potential:+benefactive]

In (4), the function Benefiter is entailed (E3a and d, [i.e. E3 [inherent]: a. insert function Benefiter-1; d. subcategorize Event as /(material action) NECESSARILY requiring Benefiter/) -eds]; in (5) Benefiter is simply permitted. *I gave a book* implies an implicit Benefiter (Hasan 1984, for implied vs. implicit); *I bought a book* does not. This aspect of the meaning of *buy* is captured by assuming that the BENEFACTION options underlying this item are [beneficile:potential]. Note the difference in the Benefiter roles inserted in response to [inherent] (E3b) and [+benefactive] (E5c) respectively [i.e. E3b. subcategorize Benefiter-1 as Recipient; E5c. subcategorize Benefiter-1 as Client -eds]. When combined with the option [simple], the Benefiter role for the former (i.e. [inherent]) is more specifically Recipient, for the latter (i.e. [+benefactor]), Client. If the selection expression contains both the option [non-iterative] and [simple], then under certain specifiable conditions, the Recipient and Client-roles can be mapped on to Circumstance. If so, Circumstance will pre-select a prepositional group, which in the former case (i.e. [inherent]) will pre-select the preposition *to* and, in the latter (i.e. [+benefactor]), *for*, with the Benefiter nominal group as its Complement. The result in the case of (4) and (5) would be:

(4a) I gave a book to John. [non-iterative; ... :inherent:simple ...]
(5a) I bought a book for John. [non-iterative; ... :+benefactive:simple ...]

The difference between [inherent] and [+benefactive] is displayed even more sharply if, instead of [simple], the option [complex] is selected. This option inserts the function Ultimate Client (E10c), which can only pre-select a prepositional group, initiated by *for*, with the Benefiter nominal group as Complement. (4) and (5) would then be:

(4b) I gave John a book for Iona. [non-iterative; ... inherent:complex]
(5b) I bought John a book for Iona. [non-iterative; ... +benefactive: complex]

Again, under certain specifiable conditions (4b) – but not (5b) – can take the following forms:

(4c) I gave a book to John for Iona.
(4d) I gave a book for Iona to John.

Parallel to the above we do not have:

(5c) I bought a book to/for John for Iona.
(5d) I bought a book for Iona to/for John.

A related observation is that while underlying (4e) would be [complex] (with Recipient implied and implicit), (5e) can only be read as [simple]:

(4e) I gave a book for Iona.
(5e) I bought a book for Iona.

The distinction between Recipient and Client as well as that between Client and Ultimate Client appears motivated. Note that when Ultimate Client is inserted, this creates a point of identity in the semantic value of Recipient and Client: both are a means whereby the Medium is passed to the Client. Many interesting questions arising from these details must be shelved, as this much will suffice for the discussion of the [iterative] processes, which is the main focus here. But two generalizations appear appropriate: first, a function inserted by two distinct options – e.g. Benefiter-1 inserted by [inherent] or by [+benefactive] – is not identical in ALL respects; and second, the semantic value of an option – the meanings that it constructs – depends on the environment of that option.

Returning to systems of ACCESS and CHARACTER, the combination of [iterative] and [acquisition] is the entry condition for choice between [unitary] and [neutral]. The combined PI of [iterative;acquisition] is the conjunction of C1 and D1a–b. The instructions for the [unitary] and [neutral] options are:

F: 1. [unitary]
  a. Medium pre-selects nominal group with Thing/ (alienable, divisible) and plural/
 2. [neutral]
  a. Medium pre-selects nominal group with Thing/ (alienable, divisible) and plural OR non-count/

Ignoring BENEFACTION, the selection expressions of PROCESS up to this point are:
i [material:action:disposal:acquisition;iterative:unitary]
ii [material:action:disposal:acquisition;iterative:neutral]

Note that [unitary] is the endpoint of one path in Figure 4.2. Does it specify any unit of form that may be a recognizable lexical item? I claim that the linguistic unit capable of realizing the Event in selection expression (i) must refer to an activity which is concrete, involves change in the location of the Medium, is inherently repetitive, leads to the Agent's gain of access to the Medium, and is such that the Medium is constrained to be 'plural'. In English the only linguistic form that can meet all these requirements is *gather*. The formulation of the realization statement (C1;D1a–b;F1a), while permitting (6c), throws light on the source of the oddity of (6a–b):

(6a) Leonie gathered the water/meat in the bowl.
(6b) Leonie gathered one book from her shelf.

(6c) Leonie gathered some roses from the garden.

[Realization statements C1;D1a–b;F1a are repeated below -eds]

C1. [acquisition]	a.	subcategorize Event as /(material action of disposal involving change in location of Medium) leading to Agent's gain of access to Medium/
D1. [iterative]	a.	subcategorize Event as /(material action of disposal involving change in location of Medium) inherently repetitive/
	b.	subcategorize Medium Thing as /(alienable object) divisible
F1. [unitary]	a.	Medium pre-selects nominal group with Thing/ (alienable, divisible) and plural/)

Selection expression (ii) does not represent the endpoint of a path; dependent upon [neutral] are the options [+vast] and [unmarked]. Nevertheless, taking the selection expression as it stands, it can be said confidently that a form capable of functioning as Event here must differ from *gather* at least in one respect: it should be capable of 'taking' a Medium in which the Thing may be either [plural] or [non-count]. Ignoring the archaic *amass* altogether, in English there appear to be only two lexical items suiting these requirements: *collect* and *accumulate*.

I believe we need to recognize that the orthographic word *collect* is the expression for two distinct – even if related – lexical items: *collect*-1, which is an antonym of *deposit*, and *collect*-2, which is an antonym of *scatter/strew*. Only the latter *collect* is [iterative] and thus subject to the requirement D1b. You can deposit one book or collect it from the library, but you cannot scatter/ strew one book or collect it in the sense of *collect*-2. Again, *collect*-1 appears to be [non-beneficile]; this is not true of *collect*-2 (compare *I collected Iona her son from the school*, which is odd, with *I collected Iona some flowers*, which is quite unremarkable). Given F2, [i.e. [neutral] Medium pre-selects nominal group with Thing/ (alienable, divisible) and plural OR non-count/ -eds] the following are perfectly ordinary English clauses:

(7a) Susan collected the water in the bowl.
(7b) Susan collected some leaves from the garden.

But what about *accumulate*? It is at this point that the final option between [+vast] and [unmarked] is needed. Compare:

(8a) Susan collected some solution.
(8b) Susan accumulated some solution.
(8c) Susan accumulated gallons of solution.
(9a) Leonie collected two dollars.
(9b) Leonic accumulated two dollars.
(9c) Leonie accumulated thousands of dollars.

Of these triplets, only the member (b) appears odd, and traditionally it would be described as 'stylistically infelicitous'. But style is not independent of grammar; a delicate grammar can point to the source of stylistic infelicity, as in this case. The instructions for [+vast] and [unmarked] are:

G: 1. [+vast]
  a. Medium pre-selects nominal group with Thing /(alienable, divisible, plural or non-count) NECESSARILY indicating high degree of extent/
2. [unmarked]
  a. Medium pre-selects nominal group with Thing/ (alienable, divisible, plural or non-count) indicating any degree of vastness/

These instructions provide a basis for explaining why, side by side with (8a), (8c) and (9a), (9c), we may also have:

(8d) Susan collected gallons of the solution.
(9d) Leonie collected thousands of dollars.

and why of (8a–d) and (9a–d) only the (b) member appears stylistically infelicitous. Note also that of the three lexical items yielded by the network so far, *collect* is the most 'versatile', by virtue of the options [neutral: unmarked] (see F2a/G2a [i.e. F2 [neutral] a. Medium pre-selects nominal group with Thing/ (alienable, divisible) and plural OR non-count/; G2a above -eds]). I would suggest that of the three [acquisition;iterative] processes, *collect* would be the most frequently used and *accumulate* the least. If this hypothesis is empirically substantiated, this would imply that a delicate grammar can point to a non-random relationship between the frequency of a particular linguistic unit and its selection expression.

[disposal] options are concurrent with the BENEFACTION ones. Thus although the unique identity of three lexical items has been already established, more can and must be said about them. In the environment of [disposal] BENEFACTION options carry implications for ACCESS. The combination of [acquisition] and [beneficile] implies that the Agent's gain of access to the Medium can be passed over to some Benefiter(s). Interestingly, [acquisition] combines most frequently with [beneficile:potential], though some exceptions can be found, e.g. *snatch*, *grab* or *inherit*. The combination of [deprivation] and [beneficile] implies that the Agent's loss of access to the Medium is some Benefiter's gain of access to that Medium. [deprivation] combines readily either with [beneficile:inherent] or with [non-beneficile]; it is rare for it to combine with [beneficile:potential], though, again, exceptions can be found, e.g. *scatter* or *throw*.

Assuming that the systemic paths originating at the conjunction of [acquisition;iterative] lead to the selection of Event which can only be expressed as *gather*, *collect* or *accumulate* as shown above, we may claim that the conjunction of options [acquisition;iterative] carries an instruction:

C1a–D1a: [acquisition;iterative]
a. Process pre-selects options [beneficile:potential]

This is tantamount to claiming that there is no process in English whose selection expression contains [acquisition;iterative], but not [beneficile:potential]. If this is true, then *gather*, *collect* and *accumulate* should each be capable of 'taking' the function Benefiter; and this is indeed the case. In the examples of these lexical items above, the BENEFACTION selection has been [beneficile:potential:–benefactive]; but the selection [beneficile:potential:+benefactive] is also possible. But at this point some delicate distinctions between *accumulate* and the other two lexical items come to light. Consider:

(10a) I gathered Jenny some flowers.
(10b) I gathered some flowers for Jenny.
(11a) I collected the kids some water in the bowl.
(11b) I collected some water in the bowl for the kids.
(12a) ? Leonie accumulated John great wealth.
(12b) Leonie accumulated great wealth for John.

To use traditional terminology, of the three items, *accumulate* alone cannot 'take a direct beneficiary'. There are at least three possible ways of interpreting this difference: First, underlying *accumulate* is the option [non-beneficile] instead of [beneficile:potential]. If so, we imply that *for John* (12b) has a radically different function from *for Jenny* (10b) and *for the kids* (11b), but this is dubious. Second, *for John* is the Ultimate Client because this Benefiter function is always realized only prepositionally (see E1oc–d) where the prepositional group takes the form *for +Benefiter*. Against this solution, I would draw attention to (4e)–(5e), [i.e. (4e) *I gave a book for Iona*; (5e) *I bought a book for Iona*. -eds] and the fact that according to E1oc, Ultimate Client is a more specific label for Benefiter-2. Unlike *gather* and *collect*, *accumulate* cannot take a Benefiter-2:

(10c) I gathered Jenny some flowers for her mother.
(11c) I collected the kids some water in a bowl for their dog.
(12c) ? Leonie accumulated John great wealth for his children.

To treat *for John* as an Ultimate Client in (12b) would contradict the generalization that this function is inserted only if the function Recipient/Client is systemically 'present' as in (4b) and (5b) [i.e. (4b) *I gave John a book for Iona*. (5b) *I bought John a book for Iona*. -eds]. Third, in the final interpretation, *for John* (12b) is a Client, implying that its function is similar to *for Jenny* (10b) or *for the kids* (11b). Each has the role Benefiter-1 (= Client); however, to (10) and (11) apply certain systemic options from INFORMATION, to which (12) is not susceptible. If the option [beneficile:potential:+benefactive] combines with [(acquisition; iterative): neutral: +vast], then

Benefiter; it is constrained to take a Benefactive Circumstance, as in (12b) but not in (10) or (11). In this respect, then, *for John* (12b) differs from *for Jenny* (10b) and *for the kids* (11b). I take the last solution as the most acceptable, largely because cases comparable to (12b) will be found at least in the environment of the option [iterative].

This insight is built into the network by indicating that, concurrent with the option [simple] vs. [complex], another systematic choice operates open to any clause whose selection expression contains both [iterative] and [... non-reflexive]. The terms are [free] and [constrained]. The instructions for [constrained] are:

H. 1. [constrained]
a. Client pre-selects prepositional group with preposition *for*
b. Recipient pre-selects prepositional group with preposition *to/between/amongst*
c. conflate Benefiter-1 with Prepositional Complement
d. order Prepositional Complement to follow preposition

Option [constrained], then, acts upon function Benefiter-1 alone, irrespective of whether it combines with [simple] or [complex]. The two important aspects of the option are (a) that Client/Recipient are constrained as specified above (H1a–d), and (b) that certain specific INFORMATION options do not apply to it. In passing, note that characteristic (b), but not (a), is common also to clauses whose selection expression contains [potential:+benefactive:non-reflexive:complex]; but if characteristic (a) is lacking, they would not be said to contain option [constrained]. The point of similarity between the [constrained] and [potential:+benefactive:non-reflexive:complex:free], is exemplified by (5b), (10c) and (11c):

(5b) I bought John a book for Iona.
(10c) I gathered Jenny some flowers for her mother.
(11c) I collected the kids some water in a bowl for their dog.

and can be indicated by a realization statement which would demand preselection of some specific INFORMATION option(s).

To summarize the discussion so far, the following array of selection expressions will require that the Event be expressed either by *gather* or *collect* or *accumulate*. Common to each member of the array are the following options:

[material:action:disposal:acquisition;iterative;beneficile:potential]

These options are not repeated but assumed present in each member of the array below:

I: [: UNITARY;–BENEFACTIVE]

EVENT = *gather* e.g.
(6c) Leonie gathered some roses from the garden.

II: [: unitary; +benefactive: non-reflexive: simple; free]
Event = *gather* e.g.
(10a) I gathered Jenny some flowers.
(10b)I gathered some flowers for Jenny.

III: [: unitary; +benefactive: non-reflexive: complex; free]
Event = *gather* e.g.
(10c) I gathered Jenny some flowers for her mother.

IV: [: neutral: +vast; −benefactive]
Event = *accumulate* e.g.
(8c) Susan accumulated gallons of solution.
(9c) Leonie accumulated thousands of dollars.

V: [: neutral: +vast; +benefactive: non-reflexive: simple; constrained]
Event = *accumulate* e.g.
(12b) Leonie accumulated great wealth for John.

VI: [: neutral: unmarked; −benefactive]
Event = *collect* e.g.
(7a) Susan collected the water in the bowl.
(7b) Susan collected some leaves from the garden.

VII: [: neutral: unmarked; +benefactive: non-reflexive: simple; free]
Event = *collect* e.g.
(11a) I collected the kids some water in the bowl.
(11b) I collected some water in the bowl for the kids.

VIII: [: neutral: unmarked; +benefactive: non-reflexive: complex; free]
Event = *collect* e.g.
(11c) I collected the kids some water in a bowl for their dog.

3. The lexicogrammar of deprivation 1: scatter, divide, distribute

Turning now to the options permitted by the combination of [deprivation] and [iterative], the BENEFACTION options have to be taken into account from the very start. This implies that the basis of distinction between the various [deprivation] processes lies not only in whether they are [iterative] or not but also whether they are [beneficile] or not. When [deprivation; iterative; beneficile] combine, this presents a complex entry condition for a choice between [random] vs. [planned]. The former implies that there is no particular design to the disposition of the Medium, while the latter implies an activity in which the disposition of the Medium follows a more or less equitable design. Note the PI for these options is a combination of C2, D1ab, E2a; and the instructions attached to them are:

J: 1. [random]
   a. co-select option [potential]
   b. sub-categorize Medium Thing as /(alienable, divisible) plural or non-count, solid/

2. [planned]
   a. co-select option [inherent]
   b. subcategorize Benefiter-1 as /(animate) non-singular/

As [random] represents the endpoint of one systemic path, the selection expression containing the option can be stated as follows:

(iii) [material:action:disposal:deprivation;iterative;beneficile:potential]

In English, the only lexical item capable of functioning as the Event in a clause with the above selection expression is *scatter*. Although the item *strew* resembles it in certain respects, it will not suit the requirements of [beneficile: potential], for this implies that a clause of this kind can 'take' the function Benefiter. With *strew* this possibility is not open (consider: *she strewed the pigeons some breadcrumbs*). Given J1 a–b, (13a–b) are normal clauses of English; (13c) is not:

(13a) she scattered her clothes all over the place.
(13b) she scattered the toys on the floor.
(13c) she scattered juice on the table.

Given the presence of [potential] in (iii), the option between [−benefactive] and [+benefactive] applies. (13a–b) present examples of the former option, while underlying (14) is the option [+benefactive]:

(14) she scattered the pigeons some breadcrumbs.

The selection of [+benefactive] has a somewhat interesting by-product: it creates an impression of intentionality, which is absent from (13a–b). This may not be just an accidental feature of this particular lexical item; so compare *she broke a stick* vs. *she broke them a stick* and *she found a sixpence* vs. *she found them a sixpence*. When the options [random] and [+benefactive] combine, this seems to bear a consequence for the nominal group preselected by the Benefiter: not only does the Thing have to be animate, but there is a very strong probability of it being non-human. Compare (14) with (15):

(15) she scattered the children some bread.

(15) conjures up a picture of a nasty female – perhaps the traditional stepmother in a fairy-tale. Again, [+benefactive: non-reflexive] allows either the selection of [simple] or of [complex], though with [random] the probability of the selection of [simple] is much higher than that of [complex]. We would rarely find clauses such as (16):

(16) She scattered the pigeons breadcrumbs for their chicks.

Although (15) and (16) may be less frequent than (13a) or (14), neither is odd, unlike (13c). So while (13c) would be attributed to a mistake, (15) will

be seen as playing upon that part of the meaning of *scatter*, constructed by [random], while the rarity of (16) might arise from a combination of [random] and [+benefactive: non-reflexive: complex]. The former implies that the Medium is being disposed of without any particular design, whereas the selection of the option [+benefactive] raises the possibility of the Agent having a particular design for the disposal of the Medium. Specifically, the selection of the Ultimate Client (which is inserted in response to [complex]; see E10a–f) goes against the lack of a particular design for the disposal of the Medium. So it would appear that all these important facts about *scatter* can be stated without adding any more options to the network in Figure 4.2. The array of selection expressions which would require that the Event be expressed as *scatter* are now described.

Common to each member of the array are the following options, which will be assumed present in IX–XI:

[material: action: disposal: deprivation; iterative; beneficile: potential]

IX: [: random; −benefactive]
Event = *scatter* e.g. (13a, 13b)
(13a) she scattered her clothes all over the place.
(13b) she scattered the toys on the floor.

X: [: random; +benefactive: non-reflexive: complex: free]
Event = *scatter* e.g. (16)
(16) She scattered the pigeons breadcrumbs for their chicks.

XI: [: random; +benefactive: non-reflexive: simple: free]
Event = *scatter* e.g.
(14) she scattered the pigeons some breadcrumbs.

There may be one problem with the description of *scatter* presented here. I have implied that if option [free] is present, then with the selection of certain options from the INFORMATION system, the function Client would be realized as a Benefactive Circumstance. More specifically, the prepositional group would take the form *for* +*Benefiter*-1 nominal group. The proportion between (14) and (14a) is the same as that between (10a) and (10b):

(14a) she scattered some breadcrumbs for the pigeons.

But is (14b) also an equally normal clause?

(14b) She scattered some breadcrumbs to the pigeons.

If so, then *scatter* would appear to allow a Benefactive Circumstance, which is allowed to occur only if the Benefiter-1 role is subcategorized as Recipient; and I have argued that this role only occurs if the option [inherent] is selected (see, e.g. 4b–4e [repeated below -eds]:

(4b) I gave John a book for Iona.

(4c) I gave a book to John for Iona.
(4d) I gave a book for Iona to John.
(4e) I gave a book for Iona.

If *scatter* is neutral as between taking Recipient or Client, then the instruction J1a is incorrect [i.e. J1 [random]: a. co-select option [potential][-eds]; and the network is misleading. However, while I am certain that (14a) is a perfectly normal clause, I am not certain about the status of (14b). So I shall leave the discussion of *scatter* with this query.

[planned] permits a choice between [indeterminate] and [determinate]. The instructions are as follows:

K: 1. [indeterminate]
  a. subcategorize Medium Thing as /(alienable, divisible) singular, plural or non-count/
  b. co-select options [inherent] and [constrained]
2. [determinate]
  a. subcategorize Medium Thing as /(alienable, divisible) plural or non-count (i.e. outclassify singular)
  b. co-select options [inherent] and [free]

The implication is that if the option [indeterminate] is selected, then any item capable of acting as the Event can take a singular/plural/non-count noun as Thing in the Medium; the activity must imply a Recipient (as for *give*, cf. e.g. (4a–4e)); and the Recipient can only take the form of a Benefactive Circumstance, where the prepositional group begins with *to/between/among*. The only lexical item in English capable of meeting these requirements is *divide*. Like *collect*, *divide* expresses two distinct lexical items: *divide*-1 which is roughly synonymous with *cut*, and is an antonym of *join*; the closest in meaning to *divide*-2 is the item *distribute*, or the archaic *apportion*; its closest antonym is the iterative *collect*, and possibly *hoard*. I am concerned only with *divide*-2 here. Together with the PI of [indeterminate] K1a–b explicitly allow for the following:

(17a) she divided the apple between John and Jenny.
(17b) she divided the sweets amongst the children.
(17c) the Head of School divided the money between the two research directors for their assistants.

Note how (17a) differs from (18a–b):

(18a) she divided John and Jenny an apple.
(18b) she divided an apple for John and Jenny.

The *divide* in (18a–b) is *divide*-1, not a material action of disposal but of transformation. This *divide* does not have [inherent] BENEFACTION; so it is also possible to say (18c) without implying a Benefiter role:

(18c) she divided an apple (in half).

How right Whorf was in maintaining that 'we are all mistaken in our belief that any word has an "exact meaning" ... the reference of the words is at the mercy of the sentences and the grammatical patterns in which they occur.' (Whorf 1956, 258–9). It is only by constructing delicate grammars that we can show which grammatical patterns determine what reference for some linguistic form. The description of *divide* as of *collect* perhaps shows clearly that it is more important to devise ways of making explicit 'reactances' between units of linguistic form than to concentrate on ways of segmenting given strings, and reordering and labelling the products of the segmentation.

The combination of [deprivation;iterative;beneficile:inherent] has another consequence, captured in J2b: the nominal group pre-selected by the Benefiter must have the feature plural. Note the difference between (17a) [(17a) *she divided the apple between John and Jenny* -eds] and (18d–e):

(18d) she divided John an apple.
(18e) she divided an apple for John.

The [iterative] *divide* is said to have the option [constrained] precisely because Benefiter-1 can never occur as a direct beneficiary. The option [inherent] is said to be pre-selected because Benefiter-1 will always be interpreted as a Recipient (as with *give, sell, lend*). These features, together with the option [planned], might explain why the Benefactive circumstance can be realized only by a prepositional group with *between* or *amongst*. But I believe that another aspect of [planned] processes is important here. Just as the selection of [+benefactive] with [random] (*scatter*) creates the impression of intentionality, so also the combination of [inherent] and [planned] is capable of creating an impression of 'exhaustivity'. (17b), for example, [*she divided the sweets amongst the children* -eds] creates the impression that after the dividing is done 'the sweets' are exhausted, though this impression can be overridden by indicating otherwise (e.g. *she divided some of the sweets amongst the children*). Note, however, the difference between:

(19a) she distributed some medicine to the refugees.
(19b) she distributed some medicine amongst the refugees.

I feel that only (19b) creates the impression that 'some medicine' was exhausted after the distributing was done. If this is so, this may provide a better explanation for the selection of *between/amongst* with *divide*, which may be said to carry the connotation of exhaustivity, unless otherwise indicated. Note that further detail will be needed to differentiate between the selection of *between* and *amongst*, but perhaps the lines along which this may be done are clear enough not to need discussion.

The array of selection expressions requiring that the Event be expressed as *divide* are entered below (XII–XIII). Common to each are the following selections, which are not repeated in the individual arrays:

[material: action: disposal: deprivation; iterative; beneficile: inherent: non-reflexive]

XII: [:indeterminate; simple; constrained]
Event = *divide* e.g.
(17a) she divided the apple between John and Jenny.
(17b) she divided the sweets amongst the children.

XIII: [:indeterminate; complex; free]
Event = *divide* e.g.
(17c) the Head of School divided the money between the two research directors for their assistants.

If the option [determinate] applies, the implication is that any item capable of acting as the Event cannot take a singular noun as Thing in the Medium; the activity must imply a Recipient (this is, of course, in addition to all the characteristics inherited through the PI up to this point). The lexical item that will meet all of the requirements is *distribute*. Compare (17a) and (20a):

(20a) she distributed an apple to the children.

Again, if we have *they distributed some medicine*, a Recipient is implied in the same way as it is in *I'm giving a book* (as a present). I am treating *distribute* as having the option [free] (see K2b [co-select options [inherent] and [free] -eds]). This implies that it can take a direct Benefiter-1, as in:

(20b) the government distributed the peasants a new high-yielding variety of wheat seeds.

The option between [simple] and [complex] also applies:

(20c) to celebrate the event, they distributed everyone bags of sweets.
(20d) on Mother's Day, we distributed the children presents for their mums.

Note that the non-singularity of the Benefiter can be indicated in different ways, and it is likely that the subcategorization statements in K1a [subcategorize Medium Thing as /(alienable) -eds] and K2a [subcategorize Medium Thing as /(alienable, divisible) plural or non-count (i.e. outclassify singular) -eds] will need to be formulated more carefully. Consider:

(21a) she distributed pamphlets to the students.
(21b) she distributed a pamphlet to each student.

(21c) ?she distributed pamphlets/a pamphlet to a student.

The array of selection expressions requiring that the event be expressed as *distribute* are entered below (XIV–XV). Common to each are the same selections, shown above for XII–XIII, and these are not repeated:

XIV: [:determinate; simple; free]
Event = *distribute* e.g.
(20a) she distributed an apple to the children.
(20b) the government distributed the peasants a new high-yielding variety of wheat seeds.
(20c) to celebrate the event, they distributed everyone bags of sweets.

XV: [:determinate; complex; free]
Event = *distribute* e.g.
(20d) on Mother's Day, we distributed the children presents for their mums.

4. The lexicogrammar of deprivation 2: strew, spill, share

The above section concludes the description of processes which combine [deprivation; iterative; beneficile]. When [deprivation; iterative] combine with [non-beneficile], this acts as a multiple entry condition for the options [independent] vs. [cooperative]. The option [cooperative] implies that the activity cannot be carried out without a 'co-doer'. So that just as a Recipient is always 'present' in a clause with the option [inherent], so a function I shall call Cooperant is always 'present' in a clause with [cooperative] as in (*Eric is so sweet) he always shares his toys.* When the option is [independent], the function Cooperant is not permitted; in this sense, then, I am making a distinction between 'joint' doing as in *Eric and Jim played with the toys*, and cooperancy as in *Eric shared his toys with Jim.* The instructions for the two are:

L: 1. [independent]
  a. subcategorize Event as /(material action inherently repetitive, leading to Agent's loss of access to Medium, incapable of requiring Benefiter) and NOT INHERENTLY REQUIRING a co-doer/
 2. [cooperative]
  a. subcategorize Event as /(material action inherently repetitive, leading to Agent's loss of access to Medium, incapable of requiring Benefiter) and INHERENTLY REQUIRING function Cooperant/

[independent] is the entry condition to two options, which are so obvious they do not need much discussion. They lead to the subcategorization of the Medium as follows:

M. 1. [+solid]
  a. subcategorize Medium Thing as (alienable, divisible) plural or count, solid/
 2. [+liquid]
  a. subcategorize Medium Thing as (alienable, divisible) liquid

The options [independent:+solid] require that the Event be realized by *strew* while the options [independent:+liquid] require that it be realized by *spill.* It may be argued that *scatter* is a possibility for the former; but note that *scatter* has also the options [beneficile:potential]. When this combines with [... :–benefactive], there would appear to be some interchangeability between *strew* and *scatter.* So we can have:

(22a) she had scattered everything on the floor.
(22b) he had strewn everything on the floor.

But, as lexical items, *scatter* and *strew* cannot be said to be exactly alike. There are no such clauses as:

(23a) she strewed the pigeons some breadcrumbs.
(23b) she strewed some breadcrumbs for the pigeons.

Another question may be raised: why should option [independent] be recognized in the case of *strew* but not in that of *scatter*? This is because it is only in the environment of [deprivation; iterative; non-beneficile] that the contrast carries any significance, since all other [disposal] processes are uniformly like *strew* in not being able to require the function Cooperant. As a lexical item, *strew* appears far less frequently than *scatter*, and this may be because *scatter* can do everything that *strew* can and also some more things which *strew* cannot do, e.g. take a Benefiter. *Spill* differs from *strew* only in that its Medium must 'be' liquid. Note the metaphoric nature of *spill the beans* and *spill his guts.* Here is an example of *spill* comparable to (22b):

(22c) the waiter spilt soup on her dress.

Turning to the option [cooperative], it is best first to develop the notion of the function Cooperant. A Cooperant differs both from a Benefiter and from the informal notion 'joint doer'. A Benefiter, I have argued above, is not only always at the receiving end but must also be dissociated from an Agent. This is not true of Cooperant. Consider:

(24) they shared the sweets.

This clause would be interpreted as *they shared the sweets between/amongst themselves.* But if so, this is because the functions Agent and Cooperant are both systemically present and realized by *they.* Compare (24) with:

(24a) he shared the sweets.

Here the Cooperant is both implied and implicit; notwithstanding the absence of explicit mention of a Cooperant, the assumption is that the function is essential, since in the absence of the Cooperant the activity of sharing cannot be undertaken. So, unlike a Benefiter, a Cooperant is neither at the receiving end nor does it necessarily have to be dissociated from the Agent, though it can be as in:

(24b) John shared the sweets with Jenny.

In (24b) the function Cooperant is realized by *with Jenny*, that of the Agent by *John*. Cooperant is also different from 'joint doer'. In

(25a) they walked together to the station.
(25b) Eric walked to the station with Jim.

there is no cooperant function. In the first place, the activity of walking can be carried out without two or more persons' involvement; secondly, no matter how many persons function as the Agent, each is responsible for his/her own action. Not so with *share*. Sharing cannot be done without involvement of at least two persons; and the action of one is a condition for that of the other. There are certain non-disposal-type processes that resemble *share* in this respect, e.g. *marry, fight, meet, agree*. But of the disposal processes *share* alone has this characteristic. And although *sell, lend* might appear to be like *share*, there is an important difference. In

(26) John sold/lent Melanie a car.

although John and Melanie are involved in the same exchange, their roles *vis-à-vis* the Event are not the same. If John shared sweets with Jenny, then it follows that Jenny shared sweets with John; but if John sold Melanie a car, it does not follow that Melanie sold John a car. But if the relationship of the Cooperant and the Agent to the activity is the same, then why should two separate functions of Agent and Cooperant be recognized? The simple answer is because the functions can be separated from each other. We would not need to dissociate the functions Subject and Actor and Theme, if, under certain specifiable conditions, each could not be realized by a different constituent of the clause. Moreover, there is a meaningful distinction between (24b) [*John shared the sweets with Jenny* -eds] and (24c):

(24c) John and Jenny shared the sweets.

In (24b), John is likely to be seen as the one who had prior access to the sweets; (24c) is neutral about the prior ownership of the sweets. Moreover, (24b) leaves no room for indeterminacy; (24c) does, as comparison with (24d) shows:

(24d) John and Jenny shared the sweets with Benny.

It is important, then, to recognize a distinction between [discrete] and [fused] – the two options shown to depend on [cooperation]. The option [discrete] would carry the following instructions:

N: 1. [discrete]
   a. insert function Cooperant
   b. Cooperant pre-selects prepositional group with preposition *with*
   c. conflate Cooperant with Prepositional Complement
   d. Prepositional Complement pre-selects nominal group animate nor co-referential with Agent
   e. order Prepositional Complement to follow preposition *with*

Underlying (24b) then would be the options [:cooperative:discrete], while underlying (24c) would be [:cooperative:fused]. The only instructions for [fused] are:

N. 2. [fused]
   a. insert function Cooperant
   b. Cooperant pre-selects nominal group animate

This option is the entry condition for a further systemic choice between [Agent-oriented] and [Medium-oriented]. (24c) [*John and Jenny shared the sweets* -eds] exemplifies the former; an example of the latter would be:

(24e) John shared Jenny's sweets.

I suggest that in the absence of a Good Reason, (24e) would be interpreted as 'John and Jenny shared the sweets and the sweets were Jenny's'. This is one reason why it is possible to clinch the matter by saying:

(24f) John shared Jenny's sweets with her.

The instructions for the last pair of options are as follows:

P: 1. [Agent-oriented]
   a. pre-select nominal group complex
   b. pre-select additive complexing conjunction *and*
   c. order Agent to precede *and*
   d. order Cooperant to follow *and*
   2. [Medium-oriented]
   a. Cooperant pre-selects possessive *–'s*
   b. conflate Cooperant with Possessive Modifier in Medium

The difference between (24d) and (24f) is important. In the former, *with Benny* is Cooperant, while *John and Jenny* are (joint) Agent. In (24f), the function of *with her is* different; it is a kind of 'marking' and I am assuming that the option(s) that govern its appearance do not belong to TRANSITIVITY, but to options from some other system network which is the output of the textual metafunction. Such marking can also occur with [Agent-oriented] as in:

(24g) John and Jenny shared the sweets with each other.

Note that the prepositional groups here are constrained to be co-referential with the Cooperant; thus if (24f) had been *John shared Ben's sweets*, then the prepositional group would have been *with him*. I shall not pursue this any further here, but conclude with the comment that the only lexical item capable of acting as the Event in a clause with options [deprivation;iterative;non-beneficile;cooperative] is *share*.

The array of selection expressions requiring that the Event be expressed as *strew* or *spill* or *share* is presented below (XVI–XX). The selections common to each and so not repeated are:

[material:action:disposal;iterative;non-beneficile]

XVI: [: independent:+solid]
Event = *strew* e.g.
(22b) she had strewn everything on the floor.

XVII: [: independent:+liquid]
Event = *spilt* e.g.
(22c) the waiter spilt soup on her dress.

XVIII: [: cooperative:discrete]
Event = *share* e.g.
(24b) John shared the sweets with Jenny.
(24d) John and Jenny shared the sweets with Benny.

XIX: [: cooperative:fused:Agent-oriented]
Event = *share* e.g.
(24c) John and Jenny shared the sweets.
(24g) John and Jenny shared the sweets with each other.

XX: [: cooperative:fused:Medium-oriented]
Event = *share* e.g.
(24e) John shared Jenny's sweets.
(24f) John shared Jenny's sweets with her.

5. The continuity of grammar and lexis

The above discussion has, hopefully, established nine distinct lexical items:

gather	scatter	strew
collect	divide	spill
accumulate	distribute	share

Common to these lexical verbs is the characteristic that they can function as the Event in clauses whose selection expression contains the options [disposal] and [iterative]. There appear to be some seventy-odd [non-iterative] [disposal] processes. It has not been possible to discuss any of these for reasons of space; this is a natural concomitant of attempting to write a delicate grammar. However, I hope that the description will permit the claim that the project of turning the whole of linguistic form into grammar is feasible. In fact I believe that I have demonstrated not only that 'lexis' equals 'delicate grammar' but also that there is [grammar beyond lexis]. So far as *gather, collect* and *accumulate* are concerned, their unique identity *vis-à-vis* each other can be established by virtue of the options [unitary], [neutral], [+vast] and [unmarked]. To show the combination of these with BENEFACTION options is to do grammar after lexis, which has hopefully led to a better understanding of the identities and differences between members of the paradigm.

It needs to be made quite clear that the description presented here of the nine items is not complete. This follows from assumption (7) in section 1. The account is simply the output of one metafunction – the experiential. In the description of larger linguistic units, e.g. the clause, the validity of assumption (7) has been demonstrated by Martin (1984), Fawcett (1980), Halliday (1969; 1970; 1985), Mann and Matthiessen (1983), Young (1980), and others. It remains to be seen whether the postulate of concurrent multiple structures extends right down the rank scale to the smaller units, e.g. the lexical item. *A priori* there seems no reason to rule out this possibility; rather there is some favourable suggestive evidence. For example, synonymy is a well-recognized concept, though a troublesome one (Leech 1974; Lyons 1977). If pairs such as *ask, enquire/buy, purchase/smile, grin/cry, bawl* are examined closely, we are likely to find that while their experientially motivated grammatical structure is the same, their interpersonally motivated structure differs. A similar phenomenon is evident in *day, today* and *two, both*: both members of each pair are likely to have the same experientially motivated structure, though they most probably differ in their textually motivated structure. Unlike larger structures, the lexical item is unsegmentable; but if we accept that, in principle, different functions can be conflated on to the same segment, there would appear to be no reason for denying that a lexical item could be the expression of two or more conflated grammatical functions. These remarks are speculative, and are intended as an invitation to closer examination.

One may ask: What exactly is the basis of these options? Where do they come from? And isn't there some circularity? Is one simply pretending to start from the network as if it were *sui generis*, while in fact the options appear to be postulated precisely because certain lexical items are known to exist?

I would answer this by saying that no matter what aspect of the lexicogrammar we describe, we are in the last analysis describing the possibilities of only that which is known to us, and this knowledge is based upon our experience of language. The options of the networks are not 'universals', 'primitives' or God-given truths: they are schematic pointers to man-made meanings which can be expressed verbally. The options are presented in certain relations to each other because this is how I understand English ways of meaning; they are not there because the making of any other kind of relation is impossible. For example, in Urdu, while there seems to be a close parallel to the options [unitary] vs. [neutral] (cf. tʃunna and ʤʌmə kʌrnə), the distinction I needed to recognize by [+vast] vs. [unmarked] does not appear necessary. The networks ***represent*** a language; they do not ***invent*** it. Moreover, I doubt that any grammar can invent a language, though it can make an effort to distort other people's meanings to make them appear as replicas of, say, English meanings (cf. Hasan 1984).

Lack of space does not permit a detailed discussion of the implications of turning the whole of linguistic form into grammar, but if the account of the nine lexical items presented above has appeared valid, then it certainly upholds the systemic functional view of an uninterrupted continuity between grammar and lexis. It rejects the approach wherein the bricks of lexis are joined together by the mortar of grammar. The notion of the lexicon as an inventory of items, each having its own meaning in itself, stands refuted, and the insights of Saussure (1916), Firth (1935), Hjelmslev (1961), Whorf (1956) and Halliday (1961) are confirmed. The complex relation between the signification and value of a linguistic sign is also highlighted.

The concept of reference has been a problematical one in semantics (Lyons 1977). The interpretation of the term 'reference' as an onomastic relation to existents is a limiting one, which arbitrarily cuts the sign system into two distinct areas: there are signs such as *tree* 'referring' to TREE, a concrete object, a member of a class 'out there'; and there are signs such as *gather, collect* which lack referents. This leaves the question unanswered: how is it that such signs make any contact with the world of action/state, which is the only reason for their existence? Why is it that where it will do to say *the book is in that bag*, it will not do to say *the book is on that bag*?

The description offered here implies that the ways in which the reference of *book* or *bag* is achieved is essentially the same as that for *is, in, on, that* and *the*. Saussure created an unnecessary enigma in his account of value and signification. In part this was due to the cleavage between *langue* and *parole*. Any viable account of reference will have to take *parole* into account, and this not just so that we know that the name *John* and *the man in blue jeans* may point to the same person. But *parole* dissociated from contexts of human living is an anomaly. The reason Malinowski (1923; 1935) was able to turn Saussure's relation of value and signification upside down (Hasan 1985) was that ways of saying – *parole* within contexts – is creative of the *langue*. This is how I understand Hjelmslev's comment that process determines system; a

phenomenon cannot achieve the status of a process without systematicity. Value and signification are indeed two sides of the same coin. Looked at from the point of view of the system – the *langue* – we may claim that signification depends on value; looked at from the point of view of process – the *parole* – our claim would be that value depends upon what the speakers have consistently signified by sign – how it has meshed in with their structures of action and thought. Looking for meaning in use (Wittgenstein 1958) implies looking at both kinds of use – how a sign combines or contrasts with other signs in a string or a paradigm and how (some part of) the string applies to the world.

This line of argument needs further exploration. In most linguistic writing today, there is an uneasy amalgamation of two irreconcilable views: language as the representation of meanings that exist *sui generis*, and language as the construction of meanings, whose existence is beholden to the existence of that network of relations which, for short, we call 'language'. From the latter point of view, what is called 'world knowledge' or 'knowledge structure' is largely constructed by language itself; from the former, it is divorced from language, so that 'knowledge of the world' and 'knowledge of language' are seen as two distinct concepts. Such a view can be criticized at least on two counts: in practice it presents the advanced Western peoples' knowledge of the world as ***the*** knowledge of the world; if to them the shape of that world appears eminently reasonable, it is only because they are not at the receiving end of being brainwashed into someone else's ideology. Secondly, current postulates of world knowledge fail to address the fascinating question of how the information constructed by the various semiotic systems is integrated into some kind of working whole. When interest in this question arises, a delicate grammar of the type presented here would be an essential prerequisite to the enquiry. The notion of PI explicitly points out that the implicational shadows of signs are very long indeed. Such grammar has the potential of making explicit the concepts of 'semantic inheritance' (Brachman 1979) and 'conceptual dependency' (Schank 1975). At the same time, it seems likely that it will be of considerable use in explaining much of what Wilkes's preferential semantics is based on (Wilkes 1978).

The Systemic Functional model has always rejected the absurd postulate that transformations are meaning preserving – a view that can be upheld only if semantics equals the experiential metafunction and certain parts of the interpersonal metafunction selected on an *ad hoc* basis. It has also rejected the view that the only valid form a grammar can take is to trace the genealogical relationship between transformationally related strings. Once these two presuppositions are removed, transformations are transformed into the relation of agnation; and the rationale for the existence of certain transformational possibilities can be made explicit on the basis of a grammar of the type presented here (Hasan 1971).

When the grammarian's dream comes true, it will in all likelihood enable us to throw better light on the notions of synonymy, antonymy and hypo-

nymy. It will force us to make more explicit the basis of the distinction between 'grammatical item' and 'lexical item'. Also, I believe, it will help in making more precise Firth's view of collocation (Firth 1951a). Meanwhile, in order to translate the dream into reality much work is needed. The beginning made here represents no more than an iota of the total potential of English language for constructing meanings.

Note

1 In this paper, the editors have taken the liberty of repeating some realization statements and examples where these have been referred to at some distance from their original location in the text.

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