Chapter Five Linguistic theory as science

To understand how the problems described in the previous chapter have come about, it is necessary to look at some misconceptions connected with the attempt to do linguistics in the manner of the natural sciences. This means thinking about 'what kind of science linguistics is', which is a topic that has been aired ad nauseam, but which we cannot help returning to if we want to get some clarity on questions of language and value. We need to reconsider our basic assumptions if we are to begin to do things differently. However, the idealizations I have criticized in concluding the previous chapter have gained such a hold on our ways of thinking about language that it takes considerable effort to break free, as Robinson has observed:

> Chomsky's scientism is one of the deep fallacies. One thinks one has escaped, then one finds oneself in its embrace. It is a hydra I shall not kill in the world or in myself; if I get one of its heads off I am sure two new ones will sprout for the next comer. (1975:x-xi)

He insists that linguists should constantly interrogate their own methods: 'The continuing effort against the fallacy is nonetheless a necessary condition for clarity of thought about language'; it is the kind of thing theorists 'think repetitious and forget the minute they stop repeating' (1975:xi). It seems that repetition is indeed necessary, if we are to believe the critics who keep saying similar things; for example Hymes, who insists that linguistics needs 'to apply the principles of a critical, reflexive perspective to its own work' (1983:194), and Roy Harris, who deplores the way linguists proceed without 'bother[ing] their heads about the nature of the enterprise' (1997:309). We may find in the end that this *is* the essence of the discipline: a continual re-examination of our theoretical assumptions.

In this chapter and the next I have brought together some views which have a bearing on how we perceive the involvement of value and evaluation in language and metalanguage. These form a background to my discussion of Halliday's view of theory in Chapters Seven and Eight and my interpretation of how it relates to these questions of value.

5.1 The 'myth' in linguistics – Separation of form and function

The study of grammar in isolation from its social functions has a long history. Bodmer, writing pre-Chomsky, complains that

> the infant science of language carries a load of unnecessary intellectual luggage from its parental preoccupation with sacred texts or ancient wisdom. Grammar, as the classification of speech and writing habits, did not begin because human beings were curious about their social equipment. What originally prompted the study of Semitic, Hindu – and to a large extent that of European – grammar was the requirements of ritual. Though the impact of biological discovery has now forced European scholars to look at language from an evolutionary point of view, academic tradition has never outgrown the limitations imposed on it by the circumstances of its origin. (1996[1944]:91)

Things have not changed much. Grammar, in orthodox linguistic theory, is still an asocial entity and still described largely on the evidence of artificial written data that has little to do with the general use of language. It is still largely a grammar of propositional meanings. This approach is reflected in our metalanguage: because we disregard the inconvenient social meanings in language we also disregard them in metalanguage and thus fail to notice, or refuse to accept, the extent to which our grammatical analysis depends on our values and who we want to keep company with.

The urge to keep evaluation out of linguistic theory, realized as the anti-prescriptive, all-languages-are-equal doctrine, is the result of a complex of beliefs about language which have tightened their grip in recent years under the influence of Chomsky and made it difficult to see language from other perspectives. Roy Harris uses the term *myth* to label this ideology[1] (Robinson's *fallacy*), which he defines as

> the nineteenth- and twentieth-century reification of "grammar" as a linguistic component which has a real existence independently of *grammarians'* communicational purposes. (1997:234)

---

[1] Hasan defines an *ideology* as 'a socially constructed system of ideas which appears as if inevitable' (1986:133); 'a belief system that appears to us as if natural' (2002a). The word is sometimes used simplistically to mean 'a belief system', generally by those who think we can ditch our belief systems and get at 'the facts'. This is particularly misleading in linguistics.

Hasan also uses this term. Talking about language teaching, she says that

> though discussions concerning teaching about language can sometimes be interesting, in practice many such discussions have proved theoretically ill-founded and barren, serving merely to perpetuate a number of unhelpful myths about language . The most serious and confusing of these myths are those which would suggest we can dissociate language from meaning – form from function, or form from 'content'. (1989:v)

The term *myth* denotes a belief system of such long standing that its origins have been forgotten and its ways of meaning absorbed into the language, and it carries the connotations 'delusional' and 'misleading'. Because our metalanguage is based on the myth of grammar as an autonomous object, it takes a renewed conscious effort to describe language other than with the myth's colouring. One consequence of basing theory on this myth is that we are obliged to subscribe to the belief that the language *system* (perhaps in the form of a universal grammar underlying all languages) pre-exists *use* of language; it 'looks after itself' as it were; so there is no reason to think it in need of improvement, and furthermore, as asserted, for example, by Fromkin and Rodman, 'all languages are equally complex and equally capable of expressing any idea in the universe' (1993:25). This has led to the insistence that prescription – the attempt to improve language, or to suggest that certain forms are better than others (for particular purposes) – is undesirable.

There are many expositions of the myth's various manifestations. Some of these are Robinson (1975), Itkonen (1978), Hymes (1983), Hall (1987), Halliday (1988a), Harris (1980;1981; 1987;1990;1997), Love (1990), Reddy (1993), Singh (1996b), Taylor (1997), Bulley (1998), and Sampson (1999;2001). (In fact, anyone who has tried to expose the errors in Chomsky's theory has grappled with the myth.) In this discussion (5.1; 5.2) I have taken Robinson (1975) as representative of the general views. This work seems to me to merit our particular attention, because, unlike the others in the above list, it comes not from within the discipline but from a potential 'consumer' of linguistics, a literary scholar. Linguists have too often been inclined to disregard the impression linguistics makes on language experts outside the discipline (and even to deny that such experts might exist), and this is a mistake that needs remedying.

Robinson (1975) is likely to be read by outsiders, particularly the literary scholar, attracted perhaps by the literary reference of the title, or by Robinson's other writings in the literary genre.

The work is a cogently reasoned critique of linguistics as represented primarily by Chomsky's model (as at 1974), and one that might lead the scholar to distrust the whole discipline of linguistics, simply because Robinson assumes that Chomsky's work represents the whole discipline and indeed is its best achievement to date. His critique cannot be lightly dismissed: he has 'read everything Chomsky has published in linguistics down to mid-1974' (1975:ix), and he demonstrates a more than a passing acquaintance with other major works in linguistics (Bloomfield, Bolinger, Dixon, Firth, Fowler, Halle, Hockett, Householder, Hymes, Jakobson, Jesperson, Katz, Malinowski, Lakoff, Leech, Lyons, Mc Cawley, Sapir and Saussure) and linguistic philosophy (Aristotle, Austin, Ayer, Black, Collingwood, Descartes, Hobbes, Hume, Kierkegaard, Locke, Plato, Quine, Russell, Searle and Wittgenstein). Apart from its being a more than usually thoughtful example of the educated layperson's response to 'current cutting-edge theories', another reason for taking it seriously is just that it *is* accessible to the interested outsider, in the way much of the linguistics literature is not. (Joseph makes the same point about Roy Harris's similarly readable work: '...a lucid and elegant prose style that can actually be read by people outside the field',1997:9.) Robinson remarks that 'The spur to say something about current linguistics was my increasingly exasperated sense of its inadequacy for my purposes – or, as far as I can see, for anything else that can really be called thought about language' (1975:ix). Evidence that this strikes a chord is that his book has recently been re-issued (Robinson 1995). Despite having been first published a quarter of a century ago, his exposé of problems in linguistic theory is unfortunately still relevant and many still find the kind of linguistics he criticises inadequate for their purposes.

5.2 The search for a language-independent explanation of language

According to Robinson, the root of the problem with Chomsky's linguistics is his attempt to find 'a language-independent explanation of language' (1975:25); a process which is essentially an elaboration of the 'myth'. The following is my summary and interpretation of the elements of the Chomskyan enterprise Robinson identifies (in the course of eighty pages of criticism) as manifestations of the same basic fallacy (1975:23-103). It is this view of language that leads linguists to claim they have the facts about language, ignoring the involvement of their own language in arriving at these 'facts'. (Page numbers in this section refer to Robinson (1975) unless otherwise indicated.) These elements are as follows:

(i) the attempt to explain natural language by using the language of logic and mathematics

(ii) the idea that the linguist studies 'competence' rather than 'performance'

(iii) the idea of a 'language acquisition device'

(iv) the idea of language as 'code' (the separation of meaning and form)

(v) the idea of universal grammar

(vi) the idea of a universal system of semantic features (componential analysis).

The first of these (i) is an attempt to use as metalanguage a formal rather than a natural language, which 'is all right so long as no claim is made that such analyses are language-independent explanation or that anything is being said about linguistic universals' (25). The other five represent various attempts to get at something 'behind' language – 'words take the place of thought, and nothing can be found behind them' (Labov 1969:19) – or 'beneath the surface', to use Chomsky's metaphor. The following list gives some details.

(ii) The idea of 'competence' is intended to 'give grammar a reference to the real, viz the brain, and the grammarian his language-independent explanation' (57).

(iii) The 'acquisition device' is a similar attempt at a 'language-independent explanation, intended to subject linguistics to psychology' (73), and also, I would add, to biology. For example, as is explained in a back cover blurb to Chomsky (2000): 'Chomsky argues ... that the study of language should take as its focus the mental construct which constitutes our knowledge of language. Human language is therefore a psychological, ultimately a "biological object", and should be analysed using the methodology of the natural sciences'. Chomsky refers in this work to 'human language, a biological object'; an apposition which construes his novel and counter-intuitive claim as established and unremarkable fact (2000:186).

(iv) On the idea of language as a 'code', Robinson suggests that 'the attempt to locate the reality of grammar outside language is none other than the elderly notion of language as the "dress" of separately existing thought: first you have your thought then you search for the *mots justes* (found in the best dictionaries) to clothe it in', and complains that 'Discredited in literary criticism and in the philosophy of Wittgenstein, the notion of

language as dress has thus retreated to a last redoubt in, of all places, "the science of language"' (78). It is just 'the hopeless old distinction of content and form' (79).

(v) On 'universal grammar', Robinson quotes Chomsky's own words: 'Notice if the notions "noun phrase", "verb phrase", "sentence", "verb", can receive a language-independent characterization within universal grammar, then the grammatical relations defined above (similarly others that we might define in the same way) will also receive a universal characterization' (80, quoting Chomsky 1972b:139).

(vi) He also quotes Chomsky's reference to 'language-independent semantic absolutes' (88, quoting Chomsky 1965:77), and comments that the problem is that these 'features of meaning, unlike the parts of sound, in no sense exist' (88).

As observed above, the distinction between point (i) and the other five is important: the first is a good but limited idea, while the other five are unworkable. Point (i) refers to the use of formal 'language' (symbols from mathematics and logic, diagrams, and so on) as metalanguage, as an alternative to natural language. Halliday lists a variety of such 'languages' (1988a:47-9) and observes that

> there are certainly limitations on the ability of language to interpret itself. We may have to move outside language, to some parallel or higher order semiotic which, since it is not itself language, can be represented in language and then refracted to become a metalanguage for representing language. (1988a:49)

The problem arises, as Robinson observes, when such formalisms or 'parallel semiotics' are imagined to be language-independent explanations: a way of by-passing language. They are of course not independent: 'All such interpretation is ultimately circular; but in linguistics, we have tended to operate within circles that are pathologically small' (Halliday 1988a:49). Such 'parallel' metalanguage widens the circle, but it should not delude us into thinking we have *escaped* from the circularity of grammatical interpretation. (I expand on this idea in Chapter Six.) We are still obliged, for example, to use ordinary language to explain our formalisms.

Points (ii) to (vi) represent attempts to be 'language-independent' by not describing natural language at all but rather 'competence', the 'acquisition device', 'universal grammar', and so on.

Using the language of formal logic to talk about these non-language entities then represents the ultimate attempt to escape from language: language-as-tool-of-investigation and language-as-subject-of-investigation both disappear. The implication for explaining our science to outsiders is clear: if the linguist is engaged in investigating a kind of language that the layperson cannot see, using a metalanguage the layperson cannot understand, then there is going to be no useful communication between the two. The linguist is also licensed to treat the layperson's views of language as mere ill-informed prejudice.

The belief that there can be a language-independent explanation of language is both the cause and the effect of the many mutations of the myth, a circularity which explains its self-perpetuating, hydra-like character. Another reason for its tenacity is that it is entrenched in ordinary everyday language, as Reddy has shown in his discussion of a multitude of common idioms to do with language and thought that are based on the 'conduit metaphor' (1993[1979]). Because of this, he claims, 'English as a metalanguage [is] its own worst enemy' (1993[1979]:166). Halliday discusses the way Reddy's conduit metaphor, which is 'innocent enough' in everyday speech, 'may become pathological when [it] pervades the whole terminology of linguistics, because the effect of this metaphor is that all words for kinds and quantities of discourse, like *poem*, *message*, *text*, are split into two meanings: (i) the content and (ii) the container' (1988a:30). He examines the effect of this metaphor on our understanding of grammatical categories, showing that here in particular we need to be aware of its deceptive power: it is very easy to begin treating this metaphorical language as a congruent representation of reality. (This process is discussed in detail in Chapter Six.)

One reason the myth persists is that it makes the linguist's task more manageable. First we treat language as a separate entity from ourselves, then we divide it into bits (lexis, morphology, syntax, phonology, semantics). The divisive approach becomes the preferred methodology, because it holds out the hope of producing an account of language that is elegant, explicit and complete. The problem is that to deal with language as a whole, rather than as selected 'bits', and further, *to include our own involvement in the process of theorizing*, i.e., to recognize that the resources of language must also be the resources of metalanguage, obliges the linguist to abandon this hope. Another reason the myth persists is that it is fundamental to the attempt to model linguistic theory on the natural sciences; an attempt which requires language to be a natural object. As this 'object' does not exist in reality, but is merely a convenient idealization, what

linguistics (of any kind) describes is inevitably to a large extent an illusion. However, this is such a long-established way of describing language that we see nothing strange about it and have fallen into the habit of treating the imaginary fragments of this imaginary object as entities with a real existence. This reification makes it possible for us to stand back from language, and to imagine our theorizing is value-free.[2]

5.3 What is the 'object' of linguistics?

5.3.1 Imitating the natural sciences

Comparisons have been drawn between linguistics and other sciences, and specifically with physics, perhaps because it appears to be the 'hardest' of the hard sciences, and perhaps because the 'ungraspability' of some of its objects – gravity, magnetic fields, nuclear particles, distant stars, black holes – provides a plausible analogy with language. In *Syntactic Structures* Chomsky states that

> Any scientific theory is based on a finite number of observations, and it seeks to relate the observed phenomena and to predict new phenomena by constructing general laws in terms of hypothetical constructs such as, (in physics, for example) "mass" and "electron". Similarly, a grammar of English is based on a finite corpus of utterances (observations), and it will contain certain grammatical rules (laws) stated in terms of the particular phonemes, phrases, etc., of English (hypothetical constructs). (1957:49)

and in the less formal context of an interview he claims that

---

2 It might be argued that the fragmenting and de-socialising of language is a necessary idealization, without which we cannot begin to describe language. However, Roy Harris has argued that such idealization is not necessary for the study of language and in fact makes it impossible: 'What is particularly damning in the case of orthodox linguistics is that its idealized account of speech communication not merely fails to give a verifiable explanation of what passes for speech communication in the world of every day, but actually makes it theoretically impossible for a linguist proceeding on the basis of this idealization to come up with any linguistic analysis at all' (1990:38-9). This might perhaps be going too far in the opposite direction: surely without some degree of idealization we cannot say anything at all about language? All we can do is recognize the idealizations for what they are and ensure that they help rather than mislead us.

> So far it seems to me to have been reasonably productive, to pretend that we're doing elementary particle physics. (Huybregts and van Riemsdijk 1982:30)

This belief has filtered down the ranks to appear in an introductory text in the form of the following endorsement:

> Building on ... millennia of observation and reflection, linguists working in this century have further broadened our understanding of languages and of language use. As physicists have revised our understanding of atoms and space explorers our knowledge about the satellites of Uranus, so linguists have contributed to a burst of new insight into the nature of language. (Finegan and Besnier 1989:iii)[3]

As has been observed by, for example, Itkonen (1978) and Roy Harris (1980), the validity of Chomsky's analogy is questionable because it fails to distinguish between different kinds of *observation* and different kinds of *rules* (not all are 'laws' in the natural science sense). It is also questionable whether it has really been beneficial to the discipline. The imitation of the natural sciences is not necessarily admired by outsiders, to judge by the following remark by an author of popular works on language:

> linguistics suffers from an inferiority complex common to many of the new, soft, social sciences: it deals with less tangible substance than the hard, well-established sciences, such as biochemistry, and nuclear physics. And its technical jargon has not yet had time to settle down and become established. It longs for the respectability of a true science. (Howard 1986:47)

The appeal to the natural sciences and physics in particular has become *de rigueur* in linguistics; even the text analysed in 3.3.2, above, Matthiessen and Halliday (1997), is no exception, despite coming from a school of thought opposed to the orthodoxy. Their text does, however, as mentioned in the analysis in 3.3.2, use the analogy to make a different point: rather than appealing to the discovery of laws and entities (*the satellites of Uranus*), it emphasizes indeterminacy: (now *wave*, now *particle)*. More recently, Halliday has remarked that 'we've suffered from assuming that physics is *the* model for all sciences' (2002).

---

[3] Sampson notes the way experimental ideas rapidly become dogma: 'Chomsky's statement about linguistics being based on speakers' intuitions [1962; quoted in Sampson 2001:2] was made in the context of a specialist conference, but it soon became part of the standard teaching of linguistics, retailed in introductory textbooks ...' (Sampson 2001:122).

Boundary-transgressing has become suspect. Robinson suggests that 'if linguistics is a discipline it must make the sense that constitutes the discipline, not decide whether it is doing so by the rules of other disciplines. ...it is not a hopeful omen when linguists begin trying to measure the depth of linguistics by its closeness to physics or formal logic' (1975:124). Complaints about scientism are not new in the discipline: Firth said that 'linguists sometimes poach unskilfully in other disciplines, showing lack of assurance in their own' (1957:217), and de Beaugrande observes that such borrowing has long been a feature of the 'shifting relations between linguistics and the other disciplines'; that linguistics 'conspicuously illustrates how the "scientist looking for a new paradigm is strongly affected by the other sciences currently enjoying successful development" [quoting Winograd 1983:8]'; and that 'the pressure to borrow is reinforced when the object domain is too complex to suggest any obviously appropriate theory' (1991:346).

A complication Robinson points out is that linguistics has modelled itself not so much on scientific theory as on an erroneous understanding of what that is, even in what he calls the 'indisputable sciences': 'physics itself is not quite the objective/explanatory thing the linguist is after' (1975:5n.7). Linguistics is therefore likely to appear naive and outdated if it looks to physical science for a model of how to find 'the facts'. In the current climate of widespread scepticism in the physical sciences, the facts are no longer as clearly identifiable as they used to seem. Horgan observes that many top scientists today 'denigrate the dominant theories of science as flimsy social fabrications rather than rigorously tested descriptions of nature'. He labels this 'intrinsically interpretive' approach (1998:127) 'ironic science', because it

> resembles literary criticism in that it offers points of view, opinions, which are, at best, interesting, which provoke further comment. But it does not converge on the truth. It cannot achieve empirically verifiable surprises that force scientists to make substantial revisions in the basic description of reality. (1998:7)[4]

4

As examples of those who 'pursue science in a speculative, post-empirical mode' (1998:7) Horgan discusses Roger Penrose, Paul Feyerabend, Edward Witten, Stephen Hawking, Andrei Linde, John Archibald Wheeler, Fred Hoyle, Stephen Jay Gould, Clifford Geertz, Gerald Edelman, Brian Josephson and Frank Tipler, and as examples of ironic sciences 'Much of modern cosmology, particularly those aspects inspired by unified theories of particle physics and other esoteric ideas ... science that is not experimentally testable or resolvable even in principle and therefore is not science in the strict sense at all' (1998:94) and neuroscience, which 'continues in a postempirical ironic mode in which practitioners argue about the meaning of quantum mechanics' (1998:189).

In demanding that linguistics 'make the sense that constitutes the discipline' Robinson is asking a lot, but he is asking the right thing. His remarks about the self-deceptions of linguists are largely commonsense judgements and not the final word on the matter, but they are not off-the-cuff judgements – much careful reasoning is adduced to support his contentions.

Failure to define the term *science* must of course be responsible for much error and misunderstanding. Robinson's view of the problem is that: '"Scientific" in the sense "careful, unprejudiced", which nobody would deny to linguistics, has slid into "scientific" as the observer outside the thing observed, analysing and explaining it externally; and if one challenges the latter one is taken to be making a mad objection to the former' (1975:5). In the following I consider some ways linguistics differs from the natural sciences, looking particularly at the nature of its 'object'.

5.3.2 Linguistics as hypotheses about a natural object

The belief that, following natural science methodology, linguistics makes progress by means of falsifiable hypotheses, seems to me misleading. Butler (1989)[5] (discussed further in 7.2, below) examines the variety of theoretical perspectives within systemic functional linguistics and traces some of the differences of opinion to two ways of doing science, which can be summed up as, on the one hand, the desire to keep your options open by accommodating multiple perspectives, and, on the other, the desire to find the one 'correct' way and to prove its correctness beyond reasonable doubt. He points out that 'the Popperian style of argumentation ... is regarded by Halliday as just one possible valid way of "doing linguistics", and [Halliday's] own preference is for the creative development and refinement of insights, which may often be rather vague at first' (1989:8). Butler's opinion is that 'although the imaginative, creative style of working which Halliday himself strongly favours is vitally important at the stage of hypothesis formation, true progress can never be made unless the hypotheses are truly testable, and unless we go on to test them publicly and explicitly' (1989:29). Butler plainly believes that the 'imaginative, creative' style of doing linguistics is an inferior kind of science and that although it has something to contribute it is no more than a preliminary stage that we have to move beyond. This is the reverse

---

5 I have taken Butler's 1989 position as representative of what I believe are some widespread misunderstandings about Halliday's theory and the nature of linguistic theory generally.

of the direction Roget envisaged, as discussed in 3.2.5, above. It is possible that the reverse direction would also be productive: that the rigid facts of early theorizing should flower into creative interpretation.

It might be suggested that falsifiable hypotheses in the Popperian style are not the essence of linguistics, because this approach can handle only a limited range of language matters: those relating to the objectively real entities which constitute a small area of the discipline's concerns – such things as vocal organs or sound waves. (These are the matters that Bloomfield placed outside linguistics: 'the physiological and acoustic description of acts of speech belongs to other sciences than ours' – 1926:26.) What is important is to distinguish between the different kinds of data available to the linguist. Only in some specialist areas are we dealing with entities susceptible to the methods of physical science: experiments, laboratory equipment, induction, verification, and so on. The data most linguists deal with is not of this kind. But it is easy to be deluded by the language we use into believing abstract entities can be dealt with in the same way. The process of reification is evident in the following:

> From now on I will consider a *language* to be a set (finite or infinite) of sentences ...The fundamental aim in the linguistic analysis of a language L is to separate the *grammatical* sequences which are the sentences of L from the *ungrammatical* sequences which are not sentences of L ... Assuming the set of grammatical sentences of English to be given, we now ask what sort of device can produce this set ... (Chomsky 1957:13;18)

From choosing to *consider* language a certain way, Chomsky comes quickly to believe that (or talk as though) his own theoretical constructs have a real existence in the language, because

> By treating – and constantly referring to – words, sentences, etc. as linguistic objects existing in their own right, it becomes possible to create the impression – and to convince oneself – that these objects provide materials for scientific investigation, just as physical objects do for the physicist and chemical substances do for the chemist. (Roy Harris 1996:13)

Hudson states as his first 'Issue' (quoted in 2.1.2, above) that 'Linguists describe language empirically – that is, they try to make statements which are testable, and they take language as it is, rather than saying how it should be' (1981:335). But it is debatable whether we *can* take language 'as it is', because the 'as it is' depends on how we want to see it: on the theory we bring

to it, what we choose to focus on, how we categorize its parts. For example, Chomsky, seeing it as a set of grammatical sentences, has claimed that '[15] *His criticizing the book before he read it (because of its failure to go deeply into the matter, etc.)*' is grammatical, and therefore in the set, and that '[16] **His criticism of the book before he read it (because of its failure to go deeply into the matter, etc.)*' is ungrammatical, and therefore out (Chomsky 1972a:27). This is intended to be a statement about 'language as it is': Chomsky is claiming to have discovered a fact. But is it? Is it not rather 'language as the theorist wants it to be'?

The question of whether this is 'language as it is' becomes particularly problematic in this case, as it is likely that many native speakers would find Chomsky's examples [15] and [16] equally 'grammatical'. To support his belief that he is observing language 'as it is', he has to claim that 'speakers who fail to distinguish [16] from [15] are not aware of a property of their internalized grammar' (1972a:27-8).[6] This assertion occurred originally in his 1967 *Remarks on nominalization* lecture, in which he defended the 'lexicalist hypothesis',[7] which seems to have been a case not just of 'what he was looking for' but of 'what he was determined to find'. R.A. Harris suggests that it was this determination that led to the devising of X-bar syntax: 'the only purpose of $\bar{X}$-syntax seemed to be to prop up the lexicalist hypothesis' (1993:142).

This case is critical for Chomsky's theory, depending as it does on his postulation of innate constraints on grammaticality. What defence is left to the theorist when native speakers plainly do not recognize these constraints? The simple answer, obvious once we admit the role of our own motives and preferences in the creation of theory, must be that such constraints are not there in reality: they have been brought into being by the theorist. It is not 'a property of their internalized grammar' that speakers are unaware of, but a property of Chomsky's grammar, i.e. his *grammatics* (Halliday's term for the grammarian's formulations, as explained in Chapter One). Nevertheless, adherents of this kind of linguistic theory persist in their belief in the reality

---

6

Fromkin and Rodman suggest another escape route: 'If, however, we posit a rule for English that does not agree with your intuitions as a speaker, then the grammar we are describing is in some way different from the grammar that represents your linguistic competence; that is, your language is not the one we are describing' (1993:14). This explanation does at least have the merit of absolving the speaker from blame.

7

This is defined simply by R.A. Harris (quoting Lakoff) as the rule that 'lexical items may not change category in the course of a transformational derivation' (R.A. Harris:1993: 141).

of the internal grammar, and continue to insist that we can use the methods of empirical science to test for it, using native-speaker intuition as evidence, and yet brush aside this intuition when it does not agree with the linguist's view. Emonds recognizes the difficulties:

> I think it is this fact, the availability of an appropriate syntax for any desired meaning, that obscures the reality of syntax for most people. It is hard to appreciate a study of restrictions when, to the casual observer, it seems possible to "say anything". (1986:120n.12)

yet does not take the next step of wondering whether it might be the theory itself – so out of touch with language as it is perceived by the ordinary language user – that might be at fault.

5.3.3 Linguistics as interpretation

It seems to me more satisfactory to view linguistic theory as *interpretation* of language rather than as discovery process. This is the view of Itkonen (1978), who expounds essentially the same arguments as Robinson (1975), but in the form of a logician's exhaustive analysis rather than a literary critic's rhetoric. His aim is 'to put linguistics into its proper place within the system of sciences' (1978:19).

Itkonen argues 'against positivism, or the metascientific doctrine according to which the model set up by the natural sciences is directly applicable to all human sciences' (v). (Page numbers in this section refer to Itkonen, 1978, unless otherwise indicated.) His central concern is 'the role of *normativity* in linguistic data'; he does not think that 'the importance of this concept has yet been grasped in current theoretical linguistics', and 'as long as this continues to be the case, no adequate understanding of the metascientific status of linguistics can, in [his] opinion, be reached' (vi). Whereas Chomsky and Butler take a hierarchical view of varieties of science, Sampson says it is not the case that 'falsifiable, empirical science is the only kind of valid knowledge there is' (2001:180), but he insists that linguistics *is* the empirical kind. Itkonen, on the other hand, while also recognizing the validity of a variety of kinds of science, says that linguistics is *not* the empirical kind but more like philosophy and logic:

> the science of grammar is not an empirical but a normative science comparable to logic and philosophy. The normative sciences are characterised by their use of

> the method of explication. ... In linguistics there can be no question of directly adopting the methods of natural science. (311)

To regard linguistics as 'conceptual analysis' or 'hermeneutics' does not imply that linguistics is a science of a *lower* kind: the idea that non-empirical science is not as worthy as the empirical variety derives from the positivist definition of philosophy and logic in negative terms: 'those sciences ... which are *not* empirical' (19). Sciences are simply different: just as empirical methods cannot deal with concepts, so also 'Events in space and time could not possibly be explained by mere conceptual analysis' (43).

By *empirical* Itkonen means 'spatiotemporarily testable'; and according this definition linguistics is not empirical: it deals with grammatical concepts, and 'concepts are not spatiotemporal entities' (18). Furthermore, 'Conceptual relations cannot exist in space and time, because the entities between which they hold, i.e. concepts or meanings, do not exist in space and time' (17). He argues that

> it is best to define 'empirical' as 'testable by (sentences referring to) what happens or obtains in space and time', with the following qualification: That, and only that, which happens or obtains in space and time can be observed, observation being an act separable, perhaps in more than one way, from theory. From this it follows, among other things, that intuition, for instance, is not a form of observation. To call all ways of gaining knowledge by the same name, i.e. 'observation', not only is uninformative, but... conceals important methodological differences. (3)

Robinson makes the same point: 'But what is it to 'observe' a sentence? If I say it has a main verb, this 'would be a grammatical definition, not an observation' (1975:32). A linguistic theory that is unclear about the nature of its object is bound to become incoherent. Itkonen observes further that

> the subject matter of (the sciences analysed by) hermeneutics is not as uniform as the measurable subject matter of natural science. As a purely informal characterisation, it might be said that hermeneutics acquires its data through understanding meanings, intentions, values, norms, or rules, and that the hermeneutic analysis consists in reflection upon what has been understood.

Another problem he points out is the failure to understand the place of value in language:

> Modern theoretical linguistics ... equat[es] "subjective" with intuition and "objective" with observation, and fail[s] to see that, taken in itself, observation too is a wholly individual and subjective process. Within a conceptual framework which defines the notions "subjective" and "objective" in the way indicated, the notion "social' must remain utterly incomprehensible. It is no accident, then, that within TG, for instance, the social and normative nature of language simply disappears from the view. (57)

Closely related to the need to be clear about what we mean by *empirical* is the need to clarify what we mean by *test*. Itkonen says

> It is in connection with testing, I think, that the difference between empirical sciences and normative sciences like grammar, philosophy, and logic becomes most evident. Each science makes use of some kind of testing, but empirical science tests its theories by confronting them, experimentally, with space and time, whereas normative science tests its theories by confronting them with concepts, or with (common) knowledge. (260)

5.3.4 The meaning of 'test' in linguistics

Hudson's first 'Issue' states that linguists 'try to make statements that are testable' (1981:335). But whether we can do this depends on what we mean by 'test'. We cannot prove the 'existence' of our theoretical constructs, because there are no experimental methods that can demonstrate the existence of a set of grammatical sentences, or even of a sentence: 'Sentences arrive with grammatical description, and that with grammarians' (Robinson 1975:36n.); they do not have some prior existence. We can claim that the concept 'sentence' is a useful and productive way to describe (written) language, but we cannot 'observe' one or 'prove' that it is or is not grammatical, because 'There is no way of testing a tree diagram experimentally'. The status of grammatical analysis

> is not that of an hypothesis in science. If one *denies* that "hit the ball" in "the man hit the ball" is a VP one will be wrong or crazy: but one can only use TG analysis to say as much to people who already know. This is not experimental proof of hypothesis; moreover TG analysis cannot be conducted like a properly defined experiment. (Robinson 1975:32-3)

The kind of test that *is* available to a grammarian is the familiar one referred to as a 'probe'. It is tempting to liken the grammarian's probe to a natural scientist's test, but the analogy is misleading. Rather, it is a process of checking how closely the features of the sample conform

to our definition of the category we are trying to identify, not of demonstrating the 'real existence' of the thing.

To take a trivial example, systemic functional grammarians might argue about whether *have* in *Have a nice day* 'is' a mental, material, or relational Process. From the point of view of the semantics, it might be classed as a mental Process. But in SFG the semantics is seen as inextricably bound up with the grammar: meaning has grammatical *reactances* (Whorf 1956), which, rather than being identifiable from immediate appearances, show up as patterns of displaced effects. The difference between a material and a mental Process shows up grammatically in the tense the Process typically selects to mean present time: present-in-present (to use Halliday's term for present continuous tense) in the case of a material Process: *I <u>am having</u> (*I have) a nice day*; simple present in the case of a mental Process: *I <u>think</u> (*I am thinking) I am having a nice day*. So from this point of view the Process seems to be material. From a third perspective, using intonation as the criterion, it might be seen as relational, an attributive possessive like *Peter has a piano*, because *have*, like other relationals, and unlike mental and material Processes, is typically non-salient, as can be seen by comparing *Peter had a nice day* with *Peter enjoyed his day* (Halliday 1994a:135).

We might be tempted to say the Process 'is' all these things, but such inclusiveness loses the focus we want in most of the tasks for which we might need a linguistic description, so we have to make a decision, and our decision in borderline cases will be influenced by the use to which we want to put the description. This is likely to provoke the accusation that linguistics is not 'scientific', if the purpose of the analysis can thus influence the analyst's decision. But if we accept, with Itkonen, that linguistics is an interpretive rather than empirical science, then this cannot be seen as a fault. The fault would rather lie in trying to deny the role of the analyst's own evaluations in coming to a decision.

To further clarify what kind of science linguistics is, it helps to be clear about how we can test it. The misunderstanding about testing results in part from the ambiguity of the word *test*. As well as its strict experimental sense of 'to examine (a substance, material or system) to indicate the presence of a substance or the possession of a property', to *test* something can also simply mean to 'try out': 'to ascertain (the worth, capability or endurance) of (a person or thing)' (*Collins Concise Dictionary*). In this second sense we can and should test our grammatical

concepts: by putting them to work and seeing how well they enable us to perform a variety of the tasks for which linguistics might be needed. Butler worries that 'the consumers of systemic linguistics will assume that the claims which have been made have been thoroughly tested' (1989:31). But a linguistic theory is not the same thing as, say, an inadequately tested drug. A linguistic theory grows *through* being used – and the test of its worth is how well it enables us to talk about language, in all the applications for which linguistics is needed. Butler says that we must 'test' it (in the natural sciences sense: to examine its properties) before 'testing' it (in the sense of trying it out). But there is no way to test it in the way he envisages *before* using it, as a scientist tests a drug. It is only *in* use that it can be tested: the theory cannot develop *other than* by being put to use. This is Halliday's view:

> we can evaluate [a grammatical theory] by seeing how far it helps in solving problems where language is centrally involved ... but we cannot test it for being right or wrong. (This point was made by Hjelmslev many years ago, as the general distinction between a theory and a hypothesis.) (Halliday 1996:19)

The belief that linguistic theory should not be unleashed on the consumer until fully developed and thoroughly tested is unhelpful for the discipline: it maintains the divide between the linguist and the consumer, and it ensures that the theory does not in fact get tested in the only way it *can* be tested.[8]

Testing the theory on other people's language problems is not the only way to test language in use; we can test it on our own use, by applying it to our own metalanguage. I refer here not to the Chomskyan notion of basing the analysis on the linguist's own 'native speaker intuitions', but to the Hallidayan notion of 'using categories of the grammar to generally "think with" about the grammar'. That this is a circular process should not be seen as a fault: once we have come to accept the self-reflexivity of linguistics as inevitable we find that circularity can be turned to advantage and be informative. This is discussed fully in Chapter Seven, below.

---

8 In what Brown refers to as 'the most frequently quoted statement in the language teaching profession', Chomsky states: 'I am, frankly, rather skeptical about the significance, for the teaching of languages, of such insights and understanding as have been attained in linguistics and psychology. ... It is difficult to believe that either linguistics or psychology has achieved a level of theoretical understanding that might enable it to support a "technology" of language teaching' (Chomsky 1966, quoted in Brown 1987:149).

5.3.5 The nature of linguistic entities

Mis-categorizing the object of linguistics is perhaps the primary source of confusion about the nature of linguistic theory. It is surprisingly difficult to get a grip on the reality of language. In this section I explore some ways of thinking about it. I refer first to the example that Sampson (2001) uses to argue that linguistics *is* an empirical science. This is his discovery that multiple central embedding, treated in orthodox linguistic theory as vanishingly rare – 'there was general agreement that multiple central embedding in some sense of the concept does not happen in human languages... the number of attested examples...can be counted on the thumbs of one hand' (2001:14) – turns out, as Sampson discovered on examining real data from a variety of genres, to be quite common.[9]

This case apparently contradicts Itkonen's claim that linguistics is not empirical, because what Sampson has found looks like something that is 'really there' in the corpus. But this is an illusion; what he has 'discovered' is (instantiations of) a concept, not a spatiotemporal entity. He has found patterns of words which conform to the grammarian's concept *multiple central embedding*. But these are not 'things' that are really 'there'; they are only 'there' when the grammarian knows what to look for. He can check each example to see whether it conforms to his concept of a multiple central embedding, but there is no spatiotemporal experiment that can demonstrate its objective existence. The grammarian has to know in advance what it is in order to find it. We might take the analogy of hunting for shells on the beach: the shells continue to be there when the shell-seeker is not there, but multiple central embeddings are not 'there' in the same sense when the grammarian is not there. The sound, or sequence of *phones*, [ʃɛɬ] *is* there when the phonetician is not there, which implies that phonetics *is* an empirical science: the sounds consist of disturbances in the air, and can be demonstrated experimentally using the empirical methods of acoustic phonetics. The letters, or *graphs*, s-h-e-l-l are independently there too: they consist of the marks on the page. These entities are empirically demonstrable; they are

---

9 Since Sampson does not distinguish between embedded and included clauses, and if we analyse its clauses as embedded rather than projected, the Gerry Adams example quoted in 4.1, above, counts as one of these. It will be noted that my decision to class this example as two embedded 'fact' clauses rather than as two projected clauses has been influenced by a desire to see it as a multiple central embedding, which illustrates my point that there is often no 'fact of the matter' when it comes to describing grammatical categories.

susceptible to the 'more empirically oriented methods' which Itkonen says may be combined with 'hermeneutic methods' (1978:20). But the grammarian's categories are not 'there' in the same sense.

One way of apprehending the difference between physical and semiotic entities might be to consider how difficult it is to see the entities the grammarian sees. There is a fair chance that a person who does not know in advance what a shell is (has no 'theory' of shells) will be able to see that it is not the same thing as the rest of the things on the beach. Careful observation will reveal it is different from sand and seaweed. But a naive informant who is requested to look at a corpus cannot merely by observation pick out multiple central embeddings from 'the rest of the things'. A person of some education can pick out verbs and adjectives and a few other 'things' he or she has been taught to recognize. An illiterate informant, or one looking at a foreign language in an unfamiliar script, will at most be able to identify letters (*graphs* being real objects and their presence therefore empirically demonstrable). To see what the grammarian sees takes an advanced understanding of grammatical concepts, to say nothing of an understanding of the language in question. No linguist can write a grammar of a language he or she does not understand; as Itkonen notes: 'It is a remarkable fact that no one has ever tried to describe a society or a language in purely observational terms, which is another way of saying that no one has ever tried to describe a society or a language which he has not understood (at all)' (Itkonen 1978:26). Spatiotemporal entities are those things we can apprehend with our senses; but there is no physical way we can apprehend a multiple central embedding. To 'discover' one we need a theory of grammar. Roy Harris, quoting Frege, says the linguist is not 'in the happy position of a mineralogist who shows his audience a rock-crystal: I cannot put a thought in the hands of my readers with the request that they should examine it from all sides' (Harris 1981:90). We cannot 'see' a grammatical structure to examine it without having first accepted the grammarian's 'thought', which is his concept of it. It might be argued that some of the objects of physics, nuclear physics and astronomy in particular, cannot be apprehended by the senses. They are, however, accessible through the use of sophisticated instruments, limited only by our ability to create such instruments, whereas there is no kind of physical apparatus that can enable us to see a grammatical category.

One reason why categories appear to be really 'there' in the data is that some of them would seem fairly easy to 'see': *words* and *verbs*, for example, or multiple central embeddings. These would

be the kinds of examples that would be pointed to as evidence of 'real entities' we can describe objectively. Yet even these apparently obvious concepts provoke disagreement. Morphologists experience difficulty in deciding what counts as a 'word': it is 'one of the most difficult and important problems in morphological theory' (Spencer 1991:41). A linguist who studies the English language and 'finds' only two tenses, past and present, may come into conflict with another who 'finds' there are twelve, or twenty-four or thirty-six (as in Halliday's three systems of tense in English, each having a different number of forms: *non-finite* (12 forms), *sequent* (24 forms), and *finite* (36 forms), 1994a:200ff.). These are arguments in which no one can be 'right', because the things the linguist is looking for are not 'there' in the data before the linguist looks for them; they are only 'ways of seeing'.[10] As Butt observes,

> Linguists and many 'consumers' of grammatical descriptions have failed to appreciate the relativity and indeterminacy inherent in describing a language. There is no star chamber or court of appeal that is anything more than the categories derived from a particular tradition and a particular natural language. Consequently there is no fixed notion of Subject or Nominative or Finite or whatever just as in the same way there is no inherent up or down in cosmic space. (Butt 1996:xxix-xx)

All this seems to suggest that we need a different way to talk about linguistic entities from the one that we use to talk about physical ones.

It is of course possible not to believe in entities at all. In a detailed study of what a language really is, Love asserts that

> To the extent that linguists describe structured systems of entities called "languages" with a view to laying bare the nuts and bolts of the mechanisms with which we communicate, they are in error. There are no such things as languages, in this sense, to be described. (1990:106).

---

10 Sampson says that when identifying multiple central embeddings 'Theorists differed about the precise nature of the structural configuration they regarded as unnatural' (2001:13). But it is not the fuzziness of grammatical concepts that militates against linguistics being considered empirical. Natural phenomena may also be hard to categorize precisely. Whether the categories are clear-cut or fuzzy makes no difference to their status vis-à-vis spatiotemporal objects.

Despite the undeniable truth of this, it is difficult to know how we are to talk about language at all if it is not in terms of entities, because of the difficulty (explored in 3.3.1, above) of talking about it in a more congruent way.

5.3.6 What the corpus means and does not mean for linguistic theory

A further source of potential error is the belief that the linguist's new tool, the searchable electronic corpus, makes linguistics an empirical science. Plainly we would not want to underestimate the advance the corpus represents for the discipline. Halliday comments that it 'will, or at least it should, transform the whole discipline, enabling us to get rid of some of the more mythical elements in our thinking' (1997:24). It should certainly get rid of a number of minor myths, such as the belief that multiple central embedding is an impossible form, and also some major ones, such as belief in the grammatical/ungrammatical distinction (as argued, for example, by Sampson, 2001:165ff.). However, it could serve to confirm the overarching myth: the belief that we are getting at the 'facts' of language, using the methods of the natural sciences. Language has deluded us into thinking it is an object ever since we have been able to record it, and the electronic corpus, in recording more, and providing search facilities that make the data seem almost tangible, might reinforce that delusion. We need to understand the nature of the transformation, and be clear about what it does *not* change. The following seem to me necessary cautions to keep in mind if we are not to become yet more confused about the nature of the linguistic enterprise.

(i) 'More language' does not mean 'all of language'

It is inclined to be overlooked that we are still nowhere near seeing 'the full picture' of language. For one thing, even a large corpus brings us nowhere near the whole of language: as several have cautioned: 'COBUILD's two hundred million words is no nearer to infinity than a single clause' (Halliday1997:24); '[The COBUILD corpus] is the widest coverage we have ever had of a language, though it is still much too small and partial in its reliance on public media discourse, which has special preferences about what it counts as 'newsworthy' (de Beaugrande 1997:58); 'A corpus of tens of millions of English word-tokens will exemplify only a tiny fraction of all the word-types used in the English language (Sampson 2001:105). A corpus remains a selection.

(ii) 'More data' does not mean 'different kind of data'

The fact of there being more data does not change the nature of that data. Just because it is a larger slice does not mean it is a slice of something different: it is still *language* that we are looking at. The linguist's concepts are more likely to be generalizable if he has checked them against data from a corpus, but they do not acquire spatiotemporal reality just because we can now count larger numbers of examples of them. Sampson comes close to saying this himself when he quotes Hoey as remarking that 'corpus linguistics is not a branch of linguistics, but the route into linguistics' (2001: 6). Nor does access to a larger *quantity* of data change the essential nature of the enterprise: it is the *kind* of data that determines the nature of a science. As R.A.Harris puts it: 'The object under investigation must be allowed to guide the analysis, and a syllable is not a quark. A meaning is not a molecule. A sentence is not a liver' (1993:11). No matter how many sentences we collect they are still sentences and we have to deal with them as language, not as physical entities.

(iii) 'Better data' does not mean 'different kind of data'

Sampson's argument that linguistics is an empirical science[11] is based on the availability of data from large electronic corpora. If the empirical method is defined as that which is based on observation of real data, then using a corpus looks tantalizingly like empirical science. But the analogy is misleading. The difference between a geologist observing a rock and a linguist 'observing' a sentence still needs to be recognized. Sampson states that 'Intuition is no fit basis for a science of a subject concerned with tangible, observable phenomena' (2001:4). His argument seems to run as follows:

1. Intuition is no fit basis for a science concerned with tangible, observable phenomena.
2. Linguistics is now a science concerned with tangible, observable phenomena.
3. Therefore intuition is no fit basis for linguistics.

11

'Linguistics has become an empirical science again, after several decades when it was preoccupied with speakers' hazy "intuitions" about language structure. ... Sampson gives an overview of some of the new findings and insights about the nature of language which are emerging from investigations of real-life speech and writing, often (although not always) using computers and electronic language samples ("corpora")' (2001: Back cover blurb).

It is the second premise that makes the syllogism invalid: we cannot assert that linguistics is concerned with tangible, observable phenomena just because we now have the corpus. The tangible, observable variety of linguistic data remains the same as it always was: it consists of the physical mechanisms and products of the act of speaking (vocal and auditory organs and disturbance of the air). The main component – that material which cannot be demonstrated by laboratory experiments but must be interpreted in terms of definitions and concepts – is also still essentially the same: the corpus provides more of it, that is all. And just because one set of data is language produced by the linguist for the purpose of examining it and another is language produced independently by other people for their own purposes it does not follow that this second kind of data is tangible and observable. It might be *better* data – for a variety of reasons – but it is not data of a different *kind*. It is still language. The conclusion makes sense, but it would be reasonable to maintain that intuition (alone) is no fit basis for *any* science. It is certainly a shaky basis for a linguistic theory, but for a number of reasons that have nothing to do with data being 'tangible and observable'; such as: the linguist's intuitions are likely to be based on ad hoc examples; native speakers' intuitions vary from speaker to speaker, and often do not match what a speaker actually does; native speakers when asked for a grammaticality judgement often do not understand what the linguist is getting at; and so on.

Sampson's argument convinces because of the strong contrast he draws between his kind of linguistics and the disfavoured, intuitive, variety. He opposes judgements about language based on a quantity of real evidence (which he calls 'empirical' linguistics) to judgements about language based on minimal data of the intuitive variety (which he calls 'generative linguistics', because 'to refer to it negatively as "unempirical linguistics" clearly would not do' – 2001:11). However, just because Chomsky's linguistics is demonstrably *not* empirical it does not necessarily follow that the new variety *is*. Too much is being made of the difference between the intuitive data of generative linguistics and data drawn from a corpus. Sampson refers to the corpus as 'the concrete empirical realities of language' (2001:22). In what sense is this data 'real'? The answer must be that it is 'real' because people other than linguists produced it in non-experimental conditions. But in what way is language produced naturally rather than in test conditions more 'real'? It is still not real in the sense of having spatiotemporal reality. *Real* in the sense of 'spontaneous' (as opposed to *elicited*) has been confused with *real* in the sense of 'concrete', 'physically real', like a rock or the weather (as opposed to *abstract*). The linguist's

invented example and the corpus sample are taken to be two different orders of reality: the ethereality of the former gives an illusion of corporeality to the latter.

(iv) Corpus data is still language out of context

Another reason Sampson's case for linguistics being an empirical science is convincing is that the segregational approach (Roy Harris's term)[12] allows the linguist to imagine that a piece of language extracted from its context remains the same thing. All language data available to the linguist, whatever its provenance, is inevitably language out of context, removed from reality to a greater or lesser degree. However, although we have to decontextualize language in order to talk about it at all, we deceive ourselves if we proceed as though this made no difference, claiming that we are describing language 'as it is'. Once again we need to remind ourselves that we are not dealing with physical entities; this is an illusion created by lifting language out of its context.

A rock lifted out of its 'context' does not become a different kind of thing: it retains its physical and chemical properties. But an instance of language is so dependent on its context for what it *is* that when we 'extract' it it is hardly the same thing at all. The rock's 'context' is its physical setting, which has nothing to do with value or meaning (i.e. it has no social or semiotic elements). The *context* of a piece of language, on the other hand, is a much more complex thing. It is not just its *setting*, which is its 'immediate material environment' (Halliday 1998:10), such as a classroom, perhaps, or its *co-text* on the page; the context of an instance of language is 'the one created by the language activity itself'. This is termed *context of situation* (*field, tenor* and *mode*) in Halliday's grammar, to keep it distinct from *context* in the sense of 'setting'. *Context of situation* is 'a theoretical construct for explaining how a text relates to the social processes within which it is located' (1998:10). Language, being a social activity and not a physical object, is related to its context in complex ways. A piece of language is one kind of thing in one context of situation and something else in another. To take an example, the sentence *I walked with a peculiar springing stride, like a pogo stick, which sometimes I looked behind me and saw a little*

---

12 'Twentieth-century linguistics thus became segregational linguistics, treating words and their combinations as constituting an independent domain for investigation' (Roy Harris 1997:242, and passim).

kid imitating,[13] is one kind of thing in the context of the original narrative, but another kind when re-contextualized for the purpose of exemplification and analysis, as it might be in a functionalist's discussion of 'context', or, to take a hypothetical case, a generativist's description of 'parasitic gaps'.

The theoretical construct *context of situation* represents language as social process: its social value is part of its meaning. A text becomes a different thing, acquiring different values for different observers, according to the use to which it is put. This may be why people get angry when their grammar is corrected in the middle of a conversation: the correcter is in effect changing the piece of language into a different kind of thing from what the speaker intended – meaningful language into metalanguage; 'friendly chat' into 'grammar lesson'. Similarly, in analysing a text, the linguist is changing its context of situation, and thus changing it into a different kind of 'object', with a different meaning and value.[14]

As an example of this, Halliday refers to his doctoral thesis (1955), an analysis of *The Secret History of the Mongols*, a thirteenth century Mongolian text about the life of Genghis Khan, which was translated into colloquial Chinese rather than the literary language, for the purpose of training Chinese-Mongolian interpreters, not as a work of literature. The text had often been copied and commented on and used as a source text by historians – and so it had often been recontextualised, and then was recontextualised again by Halliday as an illustration of points about the grammar of early Mandarin. As the instantiation of a particular language system it 'had a very low value as a discourse of literature but a very high value as a document in linguistics' (Halliday 2001). It became a different 'object' because of the linguist's attention to it, in the same way that an ordinary piece of conversation changes its nature when the linguist transcribes it and analyses it, 'finding' meanings in it that were perhaps not there in the original. (A dramatic demonstration of the different meanings linguists can find in a decontextualised conversation, depending on their theoretical bent, is Singh 1996d.) Linguists are subject to the observer's

---

13 G. Keillor, 1985, *Lake Wobegon Days*.

14 Sampson records an example of this kind (though not to make this particular point): he recounts how a sentence in a bedtime story would sometimes attract his attention as a fascinating point of grammar. His daughters had 'become resigned to their father's temporary reluctance to continue with the story while he scrutinized it' (2001:16).

paradox to a greater degree than other scientists: any undue attention paid to a text changes its meaning and value.

(v) 'The corpus does not write the grammar for us'

It seems to me misleading to talk about 'engaging with the concrete empirical realities of language' (Sampson 2001:22), because they are only the *grammarian's* realities:

> We do not know what the imperfect subjunctive passive is unless we are taught, nor conjunction and relativization, though we use the latter frequently. It does not follow that a language without a word for 'word' has no words – if the grammarian can see words he can say so if he chooses – but its naive speakers will then be incapable of discussing words until they are shown how. In this case it would be plain that even 'word' is a grammatical abstraction rather than a self-evident natural category. (Robinson 1975:69)

Believing that the facts will somehow emerge of their own accord from the data and that theory is somehow engendered automatically is to be trapped by the fallacy of 'atomism', described by Robinson as what 'the American-trained linguistician of the 1940s' claimed to be doing:

> the study of a language would begin with a complete collection of the facts. He would not ask how, in the absence of scientific as well as moral principle, one knows a fact when one sees it. He would make a number of tape-recordings or written notes, at some point would declare them to be a 'corpus', and would then take this body home in order to observe it objectively, in the sure and certain hope that the categories appropriate to an explanation of the facts would emerge from such observation. (1975:2)

Matthiessen and Halliday refer to the corpus as 'a treasury of instances that we can come back to all the time for renewal of connection' and 'the grammarian's essential data bank'. But they caution that it

> is not a substitute for a theory; it does not "contain all the facts", like hidden words buried in a jumble of letters. Facts, and the principles behind them, have to be construed; but they can be construed much more reliably on the quantitative foundation of a modern computerized corpus. (1997:22)

and Halliday points out similarly that

> the corpus does not write the grammar for us. Descriptive categories do not emerge out of the data. ... A "corpus grammar" will be (a description based on) a grammatics that is so designed to make maximum use of the corpus data available, maximising its value as an information source for the description. ... It is not a grammatics that is mysteriously theory-free. Not even the most intelligent computer can perform the alchemy of transmuting instances of a grammar into the description of a grammatical system. (1996:24-5)[15]

It puts the corpus in perspective if we consider that what it is most useful for is *counting things*. As Sampson says in his preface 'One of the commonest statistical operations needed in linguistic research is to estimate the frequency of linguistic forms of one sort or another' (2001:9). A regulative remark such as this is so much a part of academic writing that it hardly seems evaluative. Here it sets the reader up to pay attention to the instructional chapter on Good-Turing Frequency Estimation (2001:94ff.). However, 'estimating the probabilities of seen and unseen types in linguistic applications' (2001:118) is still *counting things*; no matter how complex the counting process, it is still not theory.

Perhaps Sampson underestimates the proportion of evaluation in our theories. Even when our sample texts are not invented they are still our own choice, and 'because the example has been chosen to illustrate a category, that is precisely what it does, clearly and unambiguously' (Halliday 1994a:xxxiii). One way linguists can keep themselves honest is by exemplifying as far as possible from authentic, unaltered texts, rather than using artificial sentences constructed to suit their own purpose, but even a list of samples from a corpus has to be sorted into those that are relevant for a purpose and those that are not, and individual assessments of relevance will differ. Sampson is not guilty of naive positivism; he himself makes a point of stressing that his assertions do not

> imply a naive belief in a realm of pure observation statements, uncontaminated by theoretical assumptions. Every report of observation carries some theoretical baggage; but, if empirical scientists believe that observations are being distorted by incorrect assumptions, they can bring other kinds of observation to bear on the task of testing those assumptions. (2001:4)

---

15 Although it can apparently *learn* a grammatical system. Shanks (1993), for example, referring to research by Rumelhart and McClelland in the mid-1980s, recounts how computer models designed to learn grammar by trial and error rather than by rules are 'challenging the theory at the heart of modern linguistics' (1993:26).

This view is nevertheless still problematic. It suggests that although we cannot achieve a purely objective description we should nevertheless work towards it as a desirable and virtually achievable goal. Sampson's language suggests that he envisages theory as a negative nuisance, mere 'baggage' and 'contamination', a source of errors. Yet it is possible to view theory as a source of strength, which would be Matthiessen and Nesbitt's position:

> theory is a semiotic resource for making meaning in description: description is given value through theory. Since theory is a system of meanings, it gives a higher-level organization to the meanings made in description. The richer the theory we have at our disposal, the richer we can make our description. (1996:67-8)

The statistical analyses Sampson describes might be seen as a 'parallel semiotic' to add to Halliday's list (1988a:47-49), mentioned above (5.2), and this limited kind of 'language-independent explanation of language' can be a basis for beginning to 'say sensible and useful things' about language: it is a taking-off point for the three stages of *analysis*, *interpretation* and, where appropriate, *evaluation* (Halliday 1994a:xv). However, it is easy for this preparatory stage to become centre stage, particularly in an academic climate that favours quantitative methods.

The above arguments represent, I believe, some of the thinking that needs to be done before attempting to apply a linguistic theory to real-life problems. We need a clear idea of what a linguistic theory is, and that depends on having a clear idea of what its object is. In the next section I look at what seems to me a clearer way of seeing the issues, and one which takes us closer to understanding the involvement of value in language and metalanguage.

5.4 Seeing language as semiotic system rather than as natural object

Horgan's examples of 'ironic science' (1998, discussed above) suggest that the lines between the sciences are blurring. If physicists can take a semiotic approach to their data, then it should be reasonable for linguists to take a physicist's view of theirs. But it is important to transgress boundaries in the right spirit. The ironic approach offers points of view and interesting opinions, but 'it does not converge on the truth' (Horgan1998:7). When ironic science turns solemn, it shades off into what Horgan describes as 'irremediably flakey... naive ironic science gone mad' (1998:281). In my view, inter-disciplinary borrowing can never amount to more than a kind of

game. If this is so, then Chomsky's insistence on treating language as a natural object (Chomsky 2000:106-133) condemns linguistics to mimicry and speculation. Analogy is indispensable but dangerous if taken too far, as a natural scientist has pointed out:

> At times gene language gets a bit tedious, and for brevity and vividness we shall lapse into metaphor. But we shall always keep a sceptical eye on our metaphors, to make sure they can be translated back into gene language if necessary. (Dawkins 1989:45)

In their borrowings from science, linguists have not always observed this elementary caution. To be taken seriously, linguistics needs a theory designed to describe and explain a social semiotic rather than a natural system. But when it comes to describing language it can be difficult to shake the conviction that language exists in space and time in the same way a rock does, because after all, a non-geologist has to be taught to distinguish a rock from a fossil, in (what appears to be) the same way as a non-grammarian has to be taught to distinguish a noun from a verb. And the orthodoxy's sidelining of meaning and value makes the illusion of physical reality still more difficult to shake off.

I believe the best way to keep a grip on language and remember it is not a rock is to recognize that physical entities do not *mean* anything, whereas language *is* meaning. Sounds or letters that do not mean anything are not language. Focusing on meaning brings out the differences clearly, as an incisive article in *English Today*, attacking the 'language gene' idea, explains:

> the study of examples of language is dependent on what we agree to be the meaning of those examples...; in this way it is unlike the study of natural phenomena, such as water molecules, planets and brain cells, which have no meaning. ... [and] more than merely to say that language is different from things like molecules and brain cells: language cannot possibly exist without our understanding it; one might even say that it *is* our understanding of it. (Bulley1998:48)

As a semiotic system, language also has *value*: 'Semiotic systems are social systems where value has been further transformed into meaning' (Matthiessen and Halliday 1997:509). Just as the forms of language cannot be studied adequately without taking their meaning into account, so also meaning cannot be studied adequately without acknowledging the values it expresses. Halliday has put this succinctly, 'An instance of a semiotic system carries *value*; instances of

physical systems do not' (2001). He uses the analogy of *weather* and *climate* to explain the difference, first observing what a physical and a semiotic system have in common:

> the analogy whereby language is to text as climate is to weather is useful to think with. It reminds us that these are not two different things, or rather what we call 'climate' and what we call 'weather' are the same phenomenon seen from different angles, or different moments of time, and so it is with *language* and *text* [which he also calls *system* and *instance*] ... much misunderstanding has been caused by counterposing these two terms, with language and text being treated as if they were different orders of reality. (2001)

and next what they do not:

> Like all analogies, it's very partial. It's an abstract tool for thinking with, not a strict proportion, because semiotic systems are not like physical systems. In particular, an instance of a semiotic system carries value; instances of physical systems do not. Of course, you may prefer one kind of weather to another, but that's got no relevance whatever to the status of an instance of that weather in relation to climate: it's just something to be observed and measured like any element. But a text has its own value, not necessarily, in fact, probably not usually, fixed and determinate. ... And the relation of the discourse value to the underlying system is in fact highly complex. I refer to this as the 'Hamlet factor'. (2001)

It is the point at which the analogy breaks down that is significant: the point of *value*. Like the system we call *climate*, the system we call *language* does not exist in itself but only in its moment-to-moment instantiation; functioning, according to Matthiessen, by 'creating instantial sub-systems, copies of itself with which to function as it goes along' (quoted in Halliday 1997:23). Again like the climate, it changes with each instance. But the mechanism that produces the change is different. Because an instance of a physical system has no meaning it has no inherent value. But language change is driven by value, not by physical processes. Impersonal physical agency changes the climate – it changes by itself, but human agency changes language – it does not change (or stay the same) 'by itself'. As Hutton puts it, 'Language is not an object that exists beyond individual and collective human control and understanding' (1998:191). A semiotic system is produced by people, and so change in that system is also produced by people, because 'Each time someone uses language, they are both activating the system (or rather part of it) and, to an infinitesimal degree, changing it' (Halliday in interview with Thompson and Collins, 2001:145n.13). Human preference or distaste for a particular kind of weather cannot

affect the climate, but our language likes and dislikes determine which instances of language get re-activated by other speakers/writers and prosper, and which ones suffer neglect and vanish. Because language is a system that allows choice from thousands of options, every instance must inevitably involve the language user's evaluations and these evaluations must drive the system. And evaluation of course also works to maintain it: 'Language is perpetual creation', as Roy Harris observes (1997:281), but it is creation moderated by normativity, otherwise there would *be* no system.

It is because the language system is so vast and each individual's part in changing it so minuscule that we are inclined to envisage it as a phenomenon that is separate from us and change in the system as a natural process. Most instances have the power to change the system only in minuscule, unobservable ways, but 'a single highly-valued instance may exert a disproportionate effect' (Halliday and Matthiessen 1999:555). Because changes in the system become observable when the instance is a widely valued text such as *Hamlet*, or Newton's *Opticks*, such texts are valuable to linguists: they give us a magnified view of processes of language change. Lexical change is easy to spot and is the focus of attention of prescriptive and anti-prescriptive language observers alike. Grammatical change receives less attention. One study of such change is Halliday (1988b), which explores the impulse towards nominalization in scientific, technical and bureaucratic English, from the scientific writing of Chaucer (whose 1391 *Treatise on the Astrolabe* he labels a 'proto-scientific discourse' 1988a:57), through the work of Newton (*Treatise on Opticks*, 1704) and Joseph Priestley (*The History and Present State of Electricity, with Original Experiments*, 1767), to the final emergence of 'an immensely powerful resource for the construction of reality' (1988b:64), as exemplified in the writing of John Dalton (*A New System of Chemical Philosophy*, 1827) and James Clark Maxwell (*An Elementary Treatise on Electricity*, 1881).

Paying attention to valued instances prompts the thought that the linguist's language also carries value; it is never 'just' terminology. In a small way we can see the 'Hamlet factor' in the sub-system of language that we call a *linguistic theory*. Again, the process will be most visibly influenced by valued texts within the sub-system. The expression *Deep Structure*, for example, has affected the lexis of metalanguage significantly.[16] Another example would be the special

16

The 'Deep Structure' instance has affected or been affected by sub-systems beyond linguistics:

meaning *prescriptive* has acquired in linguistics (as observed in Chapter Three). Instances of linguists' grammatical usage also have values that can affect the sub-system. A noticeable one is Halliday's intransitive use of the verb *mean* (as in '*learning how to mean*'). This has begun to affect the language sub-system 'linguistics', (beyond the sub-sub-system 'systemic functional linguistics'), showing up, for example, in Coulthard's metalanguage: 'one textualization might mean more or better than another' (1994b:1). Hodge (1988) observes other idiosyncratic Hallidayan uses of the grammar, such as the system of count and mass, which may also be beginning to change the system. Systemic functional linguists find themselves very readily referring to '*the*' *grammar* rather than just *grammar* (as I have just found myself doing in the previous sentence), to distinguish it from *grammar* in the traditional school grammar sense and to give it wider implications. The next step may be the adoption of Halliday's use of *the grammar* as Actor – *the grammar is creating a whole universe of virtual phenomena* (Halliday 2002), and even Sayer – *the grammar is saying I have to construe this phenomenon in relation to what it means* (Halliday 1994b), or Sensor – *the grammar wants to have it both ways* (Halliday1997:8) – all of which have the effect of personalizing the grammar and reconnecting it with the user. As linguists' values change, so the metalanguage will change.

The question arises as to whether the language of linguistics can affect language beyond the discipline. Generative linguists deny that it can: 'How the examples that occur in our technical writing might play even a miniscule [sic] part in that endeavor is not revealed in any of Harris's publications that we have had the opportunity to read' (Borsley and Newmeyer 1997:58-9). Such a remark demonstrates the narrowness of the view of language that this theory induces in its practitioners: plainly their theory – their metalanguage – does not count as language. Language is defined as the examples whose syntax they investigate, a very narrow range indeed.[17]

'Some environmentalists have begun to talk about "deep ecology" in recent years – about the idea that we must see the earth as a whole' (McKibben 1993:229). An effect may be short-lived if a sufficient number of instances having contrary values come into play: 'the distinction between deep and surface phenomena, so fashionable in today's academic discussions, appears entirely unconvincing' (Hasan1986:143).

17

De Beaugrande has pointed out that 'Only twenty-eight invented sentences in S[yntactic] S[tructures] and twenty-four in A[spects of the] T[heory of syntax] are analysed... One sentence ("sincerity may frighten the boy") and its alterations gets analysed and discussed over twenty-six pages in the two books' (1991:176). Thirty-five years later, in Chomsky (2000), there are thirty example sentences (by my count). They are all English sentences, of the variety: *John is too*

Aitchison says that 'Naturally, language changes all the time' (1997:2), but she might equally well have said 'Language changes naturally all the time', given that she persistently compares language change to natural processes, with the aim of convincing us that 'we need to understand language, not try to control it' (1997:19): 'Nature forces humans to weave the language web in a particular way'; 'Language... is maintaining itself efficiently'; 'changes... take hold... if the language is predisposed to move in a particular direction' (1997:2;14;15). The natural corollary of this belief is denial that the linguist's own language can affect other people's use of language. But I would argue that if language carries value then Aitchison's audience's worries about the possible effects of *her* language on *their* language were not foolish. Bulley points out that

> whereas those things that can be studied objectively by scientific investigation will be unaffected solely by our theories about them, attitudes to language and theories about its nature may affect language itself. That is to say, if we take language as the totality of the use and understanding of it and if an individual's use and understanding are influenced by a view about the nature of language, then the totality will be affected by that view. (1998:48)

If we include metalanguage as part of language, and accept that it works on the same principles as language, then it must follow that the linguist's metalanguage also has the potential to affect language itself, and to affect not only the language of the discipline but also the language of general use, particularly when that metalanguage becomes a valued instance. On this principle, I would suggest that an instance on public radio, in the form of the prestigious BBC Reith Lecture series, does have the potential to affect the language, though would of course be difficult to demonstrate specific tie-ups of cause and effect (just as it is difficult to pin down the origin of *any* instance of language change – although this difficulty does not deter 'folk' etymologists). Some linguists, unlike those who stand aloof from the problems of language in society, *are* concerned about what Chambard calls '*l'actuelle dévalorisation de la parole*' ('the current depreciation of words',1994:72). Roy Harris deplores linguists' lack of social commitment – 'a profoundly amoral view of language' – and regards modern linguistics, with its view of language as 'a biological tool available for purposes of communication' and its 'language machine paradigm', as no improvement on traditional grammar, which, however much we disagree with its authoritarian approach, had an 'essentially moral view of language' (1987:140-141).

---

clever to expect anyone to talk to X (27), or *I wonder who Mary expects to feed herself* (47), and all invented, apart from, atypically, a line from Milton (130).

To connect with language in society, linguistics needs a new understanding of the nature of linguistic theory, one that would include an understanding that it is not 'ideologically inert' (Harris 1987:141). As a step towards this, we need to examine the way language is involved in linguists' construction of their theories, and in particular the way value gets involved. It is likely we will find that even if, and perhaps even because, we avoid overt evaluation, our metalanguage inevitably carries value and confers value, in complex ways. To think differently about our language requires more than just lay methods of investigation and commentary: it requires technical discussion of that language, using the explicit terms of a theory that takes into account the full meaning of language, interpersonal and propositional and organisational meanings working together. This kind of linguistic analysis is what Halliday calls 'using the grammar to think about itself' (1992:32).

In Chapter Six I demonstrate one way of doing this, using the grammar of the Token-Value clause (the identifying relational Process)[18] to examine the way the value-conferring propensity of language seems to have been involved in the creation of Chomsky's linguistic theory. I have chosen this clause type because it is a resource which metalanguage cannot avoid using, and because it must be basic to our understanding of what language *is* (*Language is an instinct*; *Language is a social semiotic*), and thus of what theory can *do*. Halliday observes that

> The Token-Value structure is probably the most difficult to come to terms with in the entire transitivity system. It is also, arguably, the most important, in that it tends to dominate in certain highly valued registers (such as scientific, commercial, political and bureaucratic discourse) where the meanings that are being constructed are inherently symbolic ones. (1994a:126)

I would add that it must also tend to dominate in the purportedly objective language of linguistics, with important implications for how we construe language and grammar.

18

A similar investigation has been discussed in Chapter Two, Christie's analysis (1999a) of classroom indoctrination in terms of the grammar of the projecting clause. Another example of using clause grammar to analyse educational problems is Hasan's discussion (2002b) of alternative views of *teaching*, depending on whether we see it as material or as verbal Process.