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The place of context in a systemic functional model

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. . . 'context of situation' is best viewed as a suitable schematic construct to apply to language events . . . it is a group of related categories at a different level from grammatical categories but rather of the same abstract nature.

[J R Firth: 1957b:182]

1 Introduction

Some fifty years ago, any mention of the term CONTEXT was in effect an identifier of the kind of linguistics one professed. Today the situation is reversed: except for one or two restricted models, the word is currency in the discipline of linguistics. This does not mean, though, that meaningful dialogue between different models is now free of problems: despite a substratum of some commonly accepted meanings, the term continues to have different value in different linguistic models[1]. This chapter will be concerned primarily with an examination of the category of context in Halliday's systemic functional linguistics (henceforth, SFL),[2] where the concept has played a crucial role throughout the development of SFL from general linguistics to scale and category to system and structure to the model's present position as a systemic functional theory whose aim is to offer a scientific description of the nature and function of language. Inherited from Malinowski (1923, 1935) via Firth (1957b) at the general linguistics stage, context has been greatly elaborated since Halliday first used it in his early writings (1959; 1961)[3]. Perhaps the most decisive step was taken in Halliday, McIntosh and Strevens (1964), where the 'scientific study of language' was said to depend on an understanding of 'how language works' in the social processes of life. The authors theorized context of situation in terms of MODE OF DISCOURSE, FIELD OF DISCOURSE, and STYLE OF DISCOURSE – the last of which, following Gregory's (1967) suggestion, was later labelled 'TENOR OF DISCOURSE'; the authors related these contextual parameters to a kind of language variety, which they called REGISTER.

What was remarkable about this theory of context was not the abstraction of these three parameters from the referential domain of the word 'context' in its 'ordinary' usage[4] – some abstraction of this kind had already been made by Firth (1957b). Rather, *The users and uses of language* (1964: 75–94), the section of Halliday *et al* most relevant to this discussion, was remarkable for its methodical establishment of the relationship of what Austin (1962) called 'words and vocables' or Firth, 'bits and pieces of language' to each contextual parameter and for an explicit indication of their place in the ecology of text in context, suggesting that distinct varieties of text could be recognized by reference to variation in language use correlating with variation in values of these parameters. Equally clear was the implication that the authors' perspective on the context of culture and of situation is founded primarily on the centrality of discourse, i.e., on the process of 'language as text', a principle that holds true to this day: the SFL description of context has been overwhelmingly socio*linguistic* rather than socio*semiotic*[5] or socio*logical*. Partial accounts of some of the developments following upon Halliday *et al* (1964) may be found in (Butt 2001; Butt and Wegener 2007; Cloran 1994; Halliday 1973b; Halliday and Hasan 1976; 1985; Hasan 1985c; 1985d; 1995b; Martin 1999; Matthiessen 1993; 2007a). The aim of this chapter is to explore two major issues: (i) the place of context in the theoretical framework of SFL, and (ii) its descriptions in relation to the linguistic analysis of the uses of language.

2 The place of context in scientific linguistics

According to my understanding of SFL, the acceptance of linguistics as a scientific study of language implies that such a study will be comprehensive: not only will it offer a coherent and viable account of 'the architecture of language' as system (Matthiessen 2007a), but also the offered account will have the potential of making sense when confronted with the social practices whereby language is maintained – including both its phylogenetic and ontogenetic development (Painter, this volume) as well as language change, including both synchronic variation and diachronic change.

### 2.1 Context and the system and process of language

Context as a theoretical category is crucial to any coherent account of all the above aspects of the study of language, though its origins lie in its contribution to a principled study of PAROLE. *Contra* Saussure, when examined with reference to its context, parole provides irrefutable evidence of its orderliness.

A large number of studies[6] of naturally occurring discourse establishes beyond doubt that the well regulated nature of parole depends not on the whims of a single individual – Saussurean '*sujet parlant*' nor the Chomskyan 'ideal native speaker' – but on the exchanges of meaning between *ordinary* speakers as participants in some concerted social activity.

This finding should have put both language use and context centre stage in linguistics, but the dominance of the idea that 'linguistics proper' has to be concerned solely with *langue*, or worse still, with competence,[7] has led formalistic linguists to believe that in the words of Leech (1974: 80) they have 'a justification for ignoring as far as possible the study of context where it interferes with the study of competence'. One severe problem with this conception of 'linguistics proper' was to deny it the possibility of explaining coherently either synchronic variation or diachronic change, making the so-called 'linguistics proper' a rather undesirable framework for the comprehensive scientific study of language (Labov 1972b). It seems quite clear that for such an account of language, linguistics needs to take as its object of enquiry both the system and the process of language as had been suggested by Halliday *et al* (1964; 1971b) – in fact, we can claim quite confidently that there can be no comprehensive scientific linguistics without parole, and no study of parole without context: a viable linguistics needs to incorporate both. And indeed soon after Halliday *et al* (1964), the category of context, which had since Firth 1957b (appeared) as something of a surrogate for semantics, became recognized in SFL as a stratum in its own right in the theoretical linguistic framework.[8] Clearly, the integration of some category into a theory is not a magical single step affair: a category grows into an element of the theory as the understanding of its nature and function grows; and the justification for its integration lies in the work it does (Butt and Wegener 2007) – the explanatory and descriptive power it generates for the theory. Figure 1 presents a view of Halliday's integration of the categories of parole and context into SFL.

2.2 The relationship of language and context

Figure 1 displays four categories, and two relations, one on the vertical axis, called REALIZATION, the other on the horizontal, called INSTANTIATION. The four categories can be organized into two distinct sets by reference to each relation. Thus, set (1) consists of the members (a) CONTEXT OF CULTURE and (b) LANGUAGE AS SYSTEM (see the left column). Set (2) consists of the members (a) CONTEXT OF SITUATION and (b) LANGUAGE AS TEXT (the right column). The two members of each pair are related to each other realizationally, so that 1a is to 1b as 2a is to 2b. These same four categories can be re-classed by reference to the relation of instantiation: set (3) shown along the top line of the rectangle consists of the two members, (a) CONTEXT OF CULTURE, and (b) context of
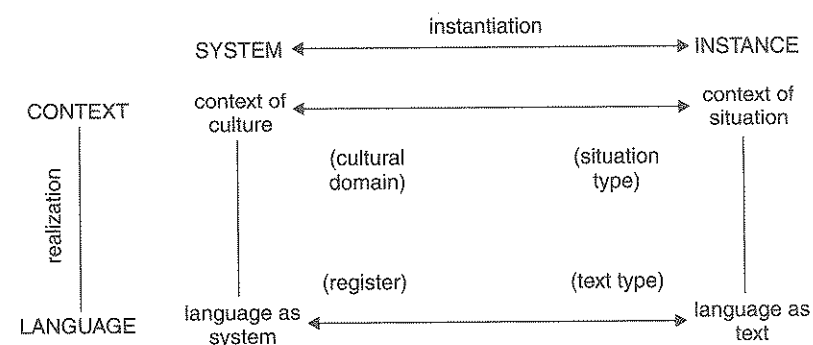
Note: Culture instantiated in situation, as system instantiated in text.
Culture realized in/construed by language; same relation as that holding between linguistic strata (semantics: lexicogrammar: phonology: phonetics).
Cultural domain and register are 'sub-systems': likeness viewed from 'system' end.
Situation type and text type are 'instance types': likeness viewed from 'instance' end.

FIGURE 1   Language and context: system and instance (Halliday 1991d, 2002–2007 volume 9: 275)[9]

situation, while set (4) shown along the bottom line of the rectangle consists of (a) LANGUAGE AS SYSTEM, and (b) LANGUAGE AS TEXT. The two members of each pair are related by instantiation, so that 3a is to 3b as 4a is to 4b. Thus each category enters directly into two relations, and also indirectly into some relation with the remaining other category. To understand the significance of this dense pattern of relationships it is necessary to understand the meaning of instantiation and realization, and what is implied by this mode of integration for the 'architecture of language' according to SFL.

Instantiation is the relationship between a potential and its instance, so in set 3, context of culture is the potential, i.e. the system, while context of situation is an instance of that potential. Halliday (1988b; 1992d; 1993c; 2008) points out that instance and system are not two distinct kinds of phenomena: they are in fact the same thing viewed from different time depths. Instance is what is immediate and experienced; system is the ultimate point of the theorization of what is experienced and imaginable by extrapolation. System thus takes shape through the distillation of the relations among the significant properties of instances: the system of culture is not simply an inventory of all its situations; it is an organization of the possible features of all possible situations in all their possible permutations, where 'possible' means socially recognizable – something that the acculturated can interpret, act on and in, and evaluate[10]; in addition, both system and instance are sensitive to perturbations in each other's properties. What this means is that anything new entering the system of culture will enter only through variation in the properties associated with some context

of situation, i.e., cultures change through human social practices. The same observations apply, *mutatis mutandis*, to the categories of set 4, i.e., language system in relation to its instance, language as text. One reason 'linguistics proper' is unable to account for language maintenance and language change is its banishment of language use; this logically prevents it from recognizing any category comparable to that of instantiation. If systemic change and innovation depend on language use, then in such models language system cannot claim access to the resources of parole, which is where texts manifest their properties maintaining the existing patterns and innovating new ones. There exists a dialectic between language system and language use: the system furnishes resources towards the formation and interpretation of the process, and the process furnishes resources towards the system's maintenance, innovation, and change.

The realization relationship is inherently semiotic: its roots lie in the nature of the sign itself, which being a union of CONTENT and EXPRESSION (Hjelmslev 1961) is necessarily stratified. The concept of realization refers to that relation whereby the stratified phenomena are calibrated permitting language in use to be subjectively experienced as a seamless flow where meaning, wording and sound work together (Halliday 1992d; Hasan 1995b; in press; Matthiessen 1995b; 2007a; Butt 2008). SFL recognizes five strata: context is the 'highest' stratum in the theory, and it is language external. The remaining four strata are language internal: SEMANTICS and LEXICOGRAMMAR are the elaboration of what Hjelmslev called content, and PHONOLOGY and PHONETICS, that of expression. The most important to the present discussion are the first three strata in the theory, viz., context, semantics and lexicogrammar: the functioning of realization[11] across these strata is critically different from that across the last two. At these three higher strata – context, meaning and wording – realization functions as a dialectic: looking from above, contextual choices ACTIVATE semantic choices activate the lexicogrammatical ones; looking from below lexicogrammatical choices CONSTRUE semantic choices construe contextual ones (Hasan, Cloran, Williams and Lukin 2007; Hasan, in press). To put it simply, to explain why anyone says anything one must appeal to the context which exerts pressure on the speaker's choice of meaning; and to explain why these patterns of wordings appear rather than any other, one must appeal to the meanings which, being relevant to the context, activated those wordings: semantics is thus an interface between context and linguistic form.[12] This activation-construal dialectic does not extend to the strata below lexicogrammar: one may claim that lexicogrammar activates phonological choices, but it would be clearly wrong to claim that phonological choices construe lexicogrammatical choices: they simply signal them, which is in keeping with their status as an aspect of expression; the status of the category of wording which is signalled by the sound is known by reference to its relation to other categories at the level of lexicogrammar, as is evident from examples such as *a whiting couldn't possibly be singing.*

2.3 Context, language system and linguistic theory

The implications of this mode of integrating context of situation and parole into the linguistic theory are substantial. Briefly, the recognition of the instantiation relation opens a legitimate avenue for the description of practices that contribute to language maintenance, the two faces of which in a living language are stability and change, regularity and variation.[13] SFL anticipated Weinreich, Labov and Herzog (1968), in recognizing systemic variation as an inherent attribute of language system (Halliday *et al.* 1964). Thus one face of language maintenance is presented in language use as an overwhelming endorsement of systemic regularities, and the other, as selective departures from them. These departures do not simply take the shape of replacement of this signal by that as usually documented in diachronic phonetic changes: very much more important are the phenomena we might describe as 'expansion' or development. Two processes significant for language development are (i) 'semo-genesis' (Halliday 1992d; 1995c) and (ii) variation be it 'user based' i.e., dialectal or 'use based', i.e. diatypic. Context is pivotal to the study of both kinds of variation: it is the locus of variant occurrences, and speakers are located by reference to context within their social world. At the same time, being an instance of culture, it carries the potential of tracing the work that varieties of a language do in the maintenance and change of cultural patterns of life. The pay off for the integration of context thus allows an opening into the valuable field of the sociology of language as a natural step in the theory.

Seen in this light, register variation gains a central position both in the life of a language and that of the speaker as well as her speech community. Based on the range of social processes in which the individual participates, her register repertoire is a significant indicator of her SOCIAL POSITIONING (Bernstein 1990) and her social positioning is at least partly a function of her register repertoire (Hasan 1999a; in press): register repertoire is in fact a cog in the social wheel of what Bourdieu (1990) used to call 'structured structuring structures'. It follows that what is true of the individual, is also true of the speech community, whose socio-political positioning vis a vis other communities is indicated by a comparison of their respective register repertoires, as even a cursory enquiry into the current political situation of the world will quickly show: it is not an accident that international/world languages have always been languages of powerful speech communities, certain segments of which logically participate in considerably wider range of social processes. While the potential for development is identical across the languages of the world, their actual state of development can and does vary: communities with less developed languages[14] are also communities with fewer material resources.

The varieties of language begin life as acts of parole, but through the working of instantiation and realization, they eventually end up enriching the system

of language. Nowhere is this more obvious than in the functional character of language. Since the early 1970's Halliday (e. g. 1970b; 1971b) has drawn attention to the fact that the contexts of language use leave their indelible impression on the inner structure of language: the structure of language is as it becomes in meeting the demands its speakers make on it, the functions it is made to serve in their life. Simplifying, in SFL, the arguments for the recognition of the metafunctions rest on what is revealed by the analysis of language use in natural context. In this examination, the tripartite structure of the context of situation is significant; it emphasizes the nature of talk as a form of social action. The parameters are in fact the three most obvious aspects of linguistic action. Thus field of discourse refers to the nature of social action, apropos of which language is being used. Tenor of discourse refers to the nature of social relationship amongst those involved with the action – not which specific individual, but how the individuals are socially positioned vis a vis each other, since this is what will impinge on the production and reception of the messages. Mode of discourse refers to the mode of contact for the actors in the discourse event, since clearly the nature of the message will be different for a co-actor in absentia compared with that for the co-present interactant. As the last comment shows, the nature of the message changes as the values of the contextual parameter change: this is what it means to claim that language in use suits itself to the speaker's socio-semantic needs.

It follows that given a substantial quantity of naturally occurring use of language in context, and given a viable method of analysing this data, the question can be meaningfully raised: is there any specialization of meanings in relation to the three different contextual parameters? It would clearly be impossible to give an answer in terms of specific meanings of lexemes or syntagmatic structures: the former is too sensitive to variation in contextual values; the latter, very much less so. But if the question is answered in terms of classes of meanings, and if paradigmatic analysis provides a viable ground for the classification of those meanings – as it does in SFL – then the answer to the question may be given in a meaningful way. Figure 2 is borrowed from Halliday (1973c, 2002–2007 volume 3: 353); it is a schematic representation of the results of one such finding.

As the legend in Figure 2 shows, the first column represents raw data of text as language in use, the second represents the situation types relevant to some specific group of texts – the instances of text types/registers: from each bundling of texts in some situation type radiate three lines representing each of the three vectors of tenor, mode and field in that order. The formal resources of worded meanings that realize the features of each vector have been identified by specific labels in Figure 2: tenor is associated with INTERPERSONAL worded meanings, mode with TEXTUAL and field, with IDEATIONAL ones. These are the labels Halliday uses for the three metafunctions of language recognized in SFL.
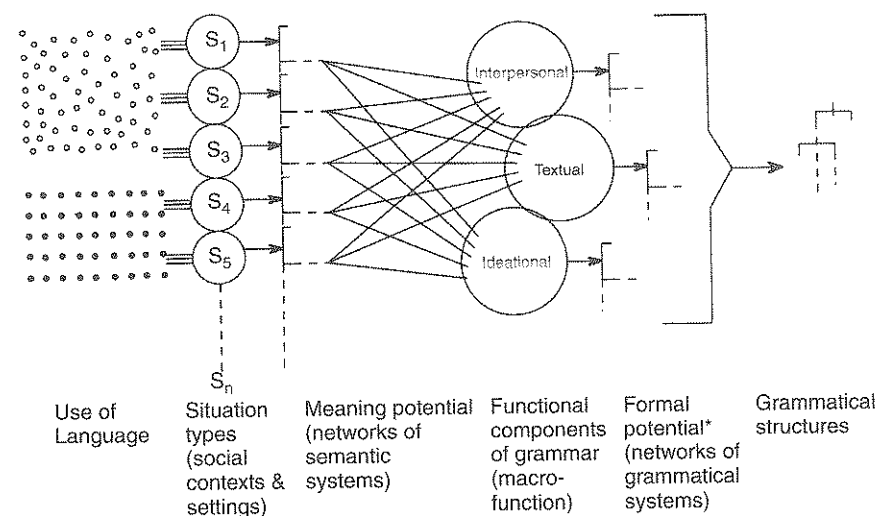

FIGURE 2 language use, situation types, and metafunctional specialization of linguistic form

The remaining columns in the Figure represent the paradigmatic resources of the language system at the stratum of meanings and wordings, which the hearer encounters as syntagmatic structures: the latter are represented in the form which, in the 70's, was overwhelmingly employed to represent such structure.

This analysis cast a new light on the work being done in the 1970's in the description of lexicogrammar: it became obvious that, seen in a paradigmatic perspective, the lexicogrammar that construes interpersonal meanings forms itself into a complex of system networks, options within which are closely related to each other by dependency and simultaneity – these are the systems of MOOD, MODALITY, PRIMARY TENSE, EVALUATION and GENERAL QUANTIFICATION. By contrast, the lexicogrammar which construes textual meanings organizes itself into another complex of system networks, options of which are similarly closely related to each other by dependency and simultaneity within the complex but show relatively fewer relations to other complexes – the systems in question are such as those of THEME, INFORMATION FOCUS, PHORICITY and KEY. The same is true *mutatis mutandis* regarding the ideational lexicogrammatical resources, which are called upon for the construal of ideational meanings – such as those of TRANSITIVITY, REFERENCE, EXPANSION, PROJECTION, and TENSE. Halliday has suggested that this characteristic organization of the semantic and lexicogrammatical resources, whose internal organization is shaped in response to each of the three contextual vectors, can be interpreted as a validation of the hypothesis (see also Halliday 1979b) that (i) the form of human language is necessarily

functional, and (ii) that this functionality of form has arisen in response to the evolution of human language as a resource for acting semiotically in social contexts. Functionality in language thus resonates primarily throughout the strata of context, semantics and lexicogrammar; albeit, traces of functionality are found also at the stratum of phonology where segmental phonology is overwhelmingly ideational, while the prosodic is overwhelmingly interpersonal and/or textual. All said, the metafunctional resonance is clearest at the higher three levels which, as pointed out earlier, enter into realizational dialectic. This appears reasonable since the postulate of functionality in language does depend to a large extent on the dialectic of realizational relations linking context, meaning and wording mutually. Before leaving this discussion, it should be added that here, as also in the preceding paragraphs, the focus has been on the analysis of situated language use, but what the analysis has revealed is the way in which parole in context contributes to the shaping of the resources of the system. As Halliday (1971b, 2002–2007 volume 10: 62. italics original.) says

> The image of language as having a 'pure' form (*langue*) that becomes contaminated in the process of being translated into speech (*parole*) is of little value . . . We do not want a boundary between language and speech at all, or between pairs such as langue and parole, or competence and performance—unless these are reduced to mere synonyms of 'can do' and 'does'.

2.4 An appliable theory for the study of language in its social context

This section has attempted to provide an account of the space that Figure 1 opens up for the exploration of the category of context: it has presented what Dawkins (2006) might describe as 'mutually buttressed evidence' in favour of the SFL modelling of language and the need to integrate context and parole in linguistic theory; without this inclusion a comprehensive scientific description of language is not feasible. The integration is critical to the conceptualization of functionality in language, and makes possible a coherent description of not only the inner structure of language – its semantic and lexicogrammatical organization – but also of the system's maintenance and development: diachronic change is an important aspect of these processes. Language development is supported by the relations of realization and instantiation which link language and society, system and instance: they allow an evidence based account of ontological development, and help us understand the significance of patterns of language development in the community, especially their relevance to the community's social positioning vis a vis others. The cogenetic relation between language and society is in fact the foundation of a viable discipline of sociolinguistics, which needs not only naturally occurring data; it needs also the appropriate theoretical apparatus for perceptive interpretation (Hasan, in press). The appliability of linguistics depends on this open-ended view of language and society,

system and instance, semiosis as social practice. Formalistic linguists have sometimes deridingly described SFL as 'applied linguistics': an alternative view is that the explanatory and successful application of linguistics to a wide range of social practices demonstrates the probity of the theory's modelling of language. Just as the exploration of space would have been impossible without a good modeling of the earth in its physical context, so also successful applications of linguistics would be impossible without a good modeling of language in its social context.

3 Describing context in textual processes

This section attempts to discuss issues in the description of context in SFL: how is context described, with what implications for understanding its nature, and, for expanding its potential for application to discourse analysis. According to SFL, there exist two possible perspectives for the description of context, which can be identified by reference to figure 1: the description may be from the point of view of instance, or from that of system. The former is concerned with what is going on here-and-now as language is being used on some specific occasion; the latter, with a description of context in any case of language use whatsoever, i.e. with the potential of context. A good deal of ink and energy were deployed in SFL in the 1980's in praising the former, and downgrading the other as incapable of describing instances (Martin 1985b). With hindsight, it seems clear that both perspectives have to work together: to demand only the dynamic perspective is to say by analogy that the lexicogrammar – which after all is a description of the system – is incapable of describing the linguistic patterns in the instance, the text; further, it is to deny, by implication, the possibility of a theoretical basis for discourse analysis (Hasan 1995b). In the event, the dynamic approach did not remain truly as dynamic as first mooted; and the synoptic was never entirely as synoptic as was implied. In actual practice, in the work of all SFL scholars, the description of context has *always* straddled the two perspectives. The reason for this inheres in the system-instance relation: an orderly description is a step toward 'system-ization'; and linguistics is about orderly descriptions. The dual perspective has been beneficial to the study of context: it has, in a manner of speaking, enabled the description to be 'tested' by patterns in large scale studies of instances, thus contributing to the understanding of both system and instance.

3.1 Concept 'relevant context'

Both Firth and Halliday began with the system perspective and – one might say – moved too quickly to the instance – a necessary step, perhaps, because that's where the immediately visible pay-off is. Firth explicitly built in the attribute of

'relevance' thus implying that there was somewhere in the environment something that might not be relevant. His categories for context description were worded as follows (Firth 1957: 182; emphasis added):

A. the *relevant* features of the participants: persons and personalities.
   (i)   the verbal action of the participants.
   (ii) the non-verbal action of the participants.
B. the *relevant* objects.
C. the effect of the verbal action.

However, it was not clear how relevance was to be established: relevant for whom or to what. Halliday *et al* (1964) clarified this issue by suggesting that their vectors of field, mode and tenor are relevant by virtue of the fact that they would always leave a 'trace' in the text: what is relevant in the context of situation would be illuminated by the language of the text. In both cases, parameters of context were offered as 'abstractions' from situation; but the relationship of the contextual parameters to what there was in the situation remained shrouded in mystery.

These uncertainties – and many others – were foregrounded for me in the late 1960's, when I was faced with a mass of running prose, which represented transcribed stories produced in the oral mode by children for one of the research projects conducted by Bernstein's Sociological Research Unit[15]. The children had responded to a request to tell a bed time story to 'this teddy bear' about 'this sailor, this boy, this girl, and this dog'. What was one to describe as the relevant features of the context? who were the relevant participants? What could be anticipated about the children's language use if one took the requesting researcher and the responding child as the relevant interactants? Were the sailor, the boy etc relevant participants/objects? If not what were they doing in the children's stories? How was it to be established that the children had really told stories? Was everything they said part of one story? What intersubjectively objective recognition criteria could one offer for the resolution of any of these issues to those research assistants who were to actually help in the analysis of the data?

In Malinowski's ethnographic descriptions (1935) narrative function and its dual context had been highlighted: the fact that the language of the story 'referred to' a separate context – one, an imaginary one of the story itself, and another one relating to the actual process of telling the story to someone. With hindsight, I recognize that the solution to some of my research problems was achieved by putting together Malinowski and Halliday *et al*. The latter implied that 'context' refers to selective phenomena in the total speech environment; and the traces of these selective phenomena are found in text as language instance. The former suggested the simultaneous operation of two contexts, which though related were yet distinct. It appeared reasonable to suggest

(Hasan 1973c) that the IMMEDIATE CONTEXT of discourse has two aspects, viz., a MATERIAL SITUATIONAL SETTING (MSS) and a RELEVANT CONTEXT. I referred to the material situational setting as a 'dormant' force. Elements of this dormant force enjoy the possibility of impinging on the ongoing parole (discussion below). By contrast, relevant context refers to that frame of consistency which is illuminated by the language of the text.

This conceptualization of relevant context immediately raises certain issues: (i) are the elements of a relevant context referred to by the language of the text always materially present in the speaker's speech environment? The answer is 'no': for example we do produce written instructions, where the address is physically absent – so, how should the theory interpret the everyday word 'environment' or 'situation'? (ii) if relevant context is recognized only by reference to 'the text', then what are the recognition criteria for the boundaries of a text? Unless we know what source of evidence is, we can hardly use it to recognize that which is made evident by the source; and (iii) what exactly is going on when two distinct relevant contexts are operating simultaneously, as in children's story telling data? Are the two contexts related? And if so, how? The first two issues are briefly addressed below;[16] for the last issue see Hasan (1971; 1985a; 1999b), Halliday (1977b).

3.2 Relevant context and material environment

Hasan (1973c) and Halliday and Hasan (1976) had suggested that a register is known by the meanings that are at risk in it: a register is what meanings in text are supposed to instantiate.[17] If relevant context is that which is based on the interpretation of the language of the text, then, clearly, it is something 'made by (worded) meanings', which is to say that it is a SEMIOTIC CONSTRUCT. It is this semiotic construct that is being abstracted from other elements of the situation and it need not consist merely of those elements of the material situation, that may be present here and now as the process of text is occurring. The tripartite structure consisting of field, tenor and mode is assigned to this semiotic abstraction: it cannot sensibly be assigned to 'the material situational setting', which consists simply of material objects, person(s) – but not personalities, which always form part of the relevant context – and their attributes. The language of a text may or may not contain any traces of these situational existents – whether it will do so depends on other features of the relevant context. If traces of elements of the material situational setting are encapsulated in the text, then such tracing semantic elements become part of the relevant context.[18] So the elements of the material situational setting are a 'dormant force' precisely in this manner: they are capable of impinging on a certain class of relevant contexts – though 'conditions apply'! for this to happen[19]. If and when they do impinge, they might lead to change(s) in the context: these changes are primarily relevant to the production of sub-texts, i.e. they are in some way connected to the text

already in progress; or they function as an independent, parallel text, which in the end acts as an interruption of the text already in progress (Cloran 1999a; Hasan 1999b),[20] though there are registers where the global structure of the text moves via what might be called 'associative movement', as for example in informal conversations between friends, where 'one thing leads on to another'.

3.3 Relevant context

The clarification of the relationship between material situational setting and relevant context proves helpful in providing an orderly way of describing the 'unexpected', encountered under certain conditions. It can also be used to suggest a viable classification of relevant contexts: relevant contexts may be

(i) capable of being perturbed by their material situational setting, informal conversation being a quintessential example; or
(ii) not subject to such perturbation – except in serious emergency – the production of verbal art, or the presentation of speech at a Convocation being quintessential examples.

Taking language in use as verbal action in service of some social activity, the three parameters place a grid on the space occupied by its relevant context: the space may be seen as exhaustively describable in terms of the three parameters called field, tenor and mode of discourse, on which the description of relevant context depends.

Relevant contexts differ from each other by virtue of the values of the three named parameters. Each parameter is, in effect, treated as a reservoir of 'values'. From this perspective, the make up of a specific relevant context consists of all the values 'selected' in each of the three parameters that 'apply' to the text responsive to the context: such a set of values specific to a relevant context has been referred to as a CONTEXTUAL CONFIGURATION (Hasan 1978) (acronym CC). An indicative account of some values ascribed to each in SFL is provided below.

3.4 Relevant context and contextual configuration

Beginning with field, which concerns the nature of social ACTION, we might think of the many different actions we undertake using language, such as shopping, teaching, telling a bed time story; playing a board game; giving someone a bath; attending to a patient; making appointment for consultation; supervising a child eating food, and so on. Clearly, there are an enormous number of actions, any of which could be unfolding: the only condition for the linguist's interest is that the action must necessarily involve some use of language. The GOAL or PURPOSE of action is quite often mentioned in the CC. Here too one

might elaborate on the kind of goal as, say, visible/invisible: for example, when giving a bath, the mothers talk to their children: describing the context of such talk we might note that the visible goal is to engage/entertain the child; however, a number of such verbal actions over time lead to 'socializing' the child in a particular way of being, doing and saying, and this could be treated as an invisible goal. Parents are often aware of this happening. The recognition of goal/purpose as separate from the action itself often poses problems: for example could you be engaged in pedagogic action of lecturing with the goal of exchanging commodities? As work on discourse analysis continued, higher level generalizations were also made, e.g., 'service encounter' which could be instantiated by buying food, or stamps, or tickets for a trip etc.; or, say, 'pedagogic action' which would 'cover' teaching, revision, discussion, testing and what not.

Tenor, concerned with social RELATION, lent itself to descriptions of ROLE. Thus such roles as mother-child; teacher-young pupil; lecturer-adult student; customer-vendor, doctor-patient; friend-friend were used as implying a certain kind of relationship between the interactants. Contact with Bernstein's work brought further details such as ASCRIBED roles and ACHIEVED roles; further, SOCIAL STATUS was introduced though selectively to handle symmetrical/asymmetrical discourses: examples of values would be PEER or HIERARCHIC; in some cases the vector of hierarchy was further elaborated. DEGREES OF FORMALITY have also been used as an attribute of relation. SOCIAL DISTANCE, introduced in SFL early (Hasan 1973c), attempted to capture the interactive biography of the specific interactants, as this acted on agentive and semiotic roles. The character of their interactive biography – how often they have interacted; how many different kinds of social processes they have participated in together; and what social status they carry vis a vis each other – all are essential to how the interactants are likely to relate to each other.

Mode of discourse, concerning CONTACT, was seen as a two part affair: MEDIUM and CHANNEL. The values of channel refer to how 'the said' was to be accessed. Two obvious values were AURAL or VISUAL. Medium referred to what 'language was doing', and the early examples consisted of such values as SPOKEN, WRITTEN; DIALOGUE, MONOLOGUE; WRITTEN-AS-IF-SPOKEN; (e.g. in drama; novel etc) WRITTEN-TO-BE-READ-ALOUD, such as sermon; EXTEMPORE e.g. informal conversation or PREPARED e.g., a paper presented at a conference; ANCILLARY language used as an instrument for assisting material action e.g. directing arrangement of furniture in a room, or CONSTITUTIVE. (e.g., seminar discussion or writing a paper, where the activity is primarily conducted by languaging). Clearly, 'what language is doing' was an informal description and as such, was subject to one's interpretation. In time, mode began to include labels of genres e.g., discussion, moral fable, humour, and so on.

What is interesting in the above description is its vagueness, the absence of 'checkable' criteria, and the reliance on 'common sense'. It is as if, other than

Table 1   A partial account of an imaginary contextual configuration

VARIABLES	VALUES OF THE VARIABLES
Field	professional consultation: medical; application for appointment . . .
Tenor	client: patient-as-applicant and agent for consultant: receptionist; maxim social distance . . .
Mode	aural channel: minus visual contact; telephone conversation; spoken medium . . .

the context's tripartite division, its description has no underlying regularities, and no reasoned framework to work with: the assumption seems to have been that being acculturated persons the linguists would know what they were talking about, just as one might assume that native speakers 'know' the grammar of the clauses they are producing and comprehending. So faced with a text already there, the SFL linguists have largely been doing what any ordinary speaker of language would do, i.e., construing from the language of the text what the text is all about – who was doing what to/with whom and why, when and where. And conversely, when it came to predicting an example of the relevant context for an *imaginary* language use – a text not yet there – one did the same, supposedly, in reverse. As an example of the description of such an imaginary context, consider Hasan (1978:231) summarised in Table 1:[21]

The account in Table 1 is highly selective, guided solely by the imaginary text I wished to analyse. In this description of relevant context, the only items that have the status of a theoretical category are those in the left column. They alone have 'the same abstract nature' as the 'grammatical categories' (see Firth quoted p. 166); the others are intuitive, based on (the memory of) experiences. I am not implying that such descriptions are *ipso facto* incorrect; or that partial descriptions are unacceptable: simply that such descriptions are not based in any consciously and carefully prepared framework for what, for want of an established term, one might call CONTEXTUALIZATION. What has been attempted so far by way of contextualization is a common sense account: if the same conventions were applied to 'doing the description of a clause', by analogy a description *without* grammatics, then the linguist would be reduced to simply identifying the 'doer', the 'doing' the 'when', the 'how' etc. by way of 'doing transitivity'. Naturally systemic linguists would not approve of this practice – and they do not, when it is used, as often, in some educational sites.

There is much in this situation to cause discomfort. More recently efforts have been made to find perhaps better alternatives. The following section is a brief exploration of what is involved in such an effort.

3.5 Is a systemic description of the contextual configuration possible?

Given the discussion of Figure 1, it is tautological to say that linguistic descriptions are made from a system perspective. For example, the lexicogrammar

in SFL is unquestionably a grammar of the language seen from the system perspective.[22] When it comes to describing the grammar of an instance, this same lexicogrammar functions largely adequately as a resource.[23] This is not surprising: system and instance are not two totally different kinds of phenomena, and the very effort to move towards an orderly description is a move toward the system perspective (Hasan 1995b; Halliday 1999). It is also to be noted that, although the distinction between grammatics and grammar is valuable, grammatics, if it is to account for how hearers understand and how speakers say, must strive to a state of close iconicity to grammar. The same has been taken to be true *mutatis mutandis* for the other strata in the theory – there is however one exception and that exception is the level of context: SFL linguists have in general treated context description qualitatively differently from description at other strata, for example, that of lexicogrammar.

There are two possible reasons for this: first, perhaps there is no agreement with Firth's (1957b:182) suggestion that 'context of situation' is best viewed as a . . . schematic construct to apply to language events . . . it is a group of related categories at a different level from grammatical categories but rather of the same abstract nature'. Although no one has so far explicitly disputed the Firthian claim, there have been suggestions that discourse analysis is indeed a very different kind of thing from doing grammar (Martin 1985b). However, no proof has been forthcoming that context is more different from meaning than meaning is from grammar, or grammar from phonology. The second reason for the reluctance to create a systematic framework might lie in a feeling that as an instance of the system of culture, the description of context of situation is probably better provided by sociology or anthropology. Certainly this is the object of enquiry for those two fields, and they do describe them but not from the perspective of language. SFL, on the other hand, does attempt to describe instances of registers, which it defines by relation to relevant context. And since a register's structure potential is the realization of its contextual configuration, it seems important to be able to provide a theorized framework for the description of the prime mover in the shaping of the discourse. It is important to remember also that although relevant context may in specifiable cases be linked through reference to phenomena located in the material situation, it is itself a semiotic construal, and as such it should be within the descriptive orbit of linguistics. Relevant context refers to a semiotically mediated universe; and it is one important function of SFL as a social semiotic theory of language to throw light on this construct. As it is, there are hardly any system networks in SFL concerning contextualization. In fact, partial contextualization system networks comparable to the lexicogrammatical ones are in a nascent stage; so far only three such have appeared in print (Cloran 1987; Hasan 1999b; Bowcher 2007)[24]; the most exhaustive set of contextualization system networks remains in mimeo form (Butt, 2003). These contextualization systems have the distinction that instead of taxonomising realized meanings, they actually systemize the realization-activating contextual features and attempt to relate context to wording via

meaning which acts as the interface between the two. In so doing they are building on similar efforts by Halliday in Halliday and Hasan (1985: 34ff; and elsewhere). There have also existed partial system networks with reference to the features of the contexts of some specific genres (Martin 1992a; Ventola 1987). To actually create a substantial contextualization system network of all three parameters with realization statements that reach lexicogrammatical choices via the semantic ones is a huge enterprise requiring a lifetime of work: what I want to do here is to give some example that might indicate (i) that a paradigmatic description of the relevant context is possible; and (ii) that its options can be shown to be realizationally related to lexicogrammatical choices via semantics.

3.5.1 The point of origin for contextualization system network

The set of contextualization system networks is as represented in Figure 3a. The point of origin is relevant context: this is what the contextualization system networks are meant to describe. This allows entry into three simultaneous system networks, relating to the three parameters already mentioned, and additionally, a fourth system, called ITERATION which allow a recursive set of choices leading to context and text (=con/text) conjunction such that the integrity of the original alpha-context is maintained; the vector will also account for con/text disjunction, where either a parallel or interrupting discourse occurs (for illustration see Hasan 1999b).

3.5.2 Field of discourse

The first parameter in Figure 3a refers to the field of discourse. Figure 3c is one tentative display of the vectors and their primary systems which pertain to the FIELD OF DISCOURSE; it is in effect a revision of some parts of field system
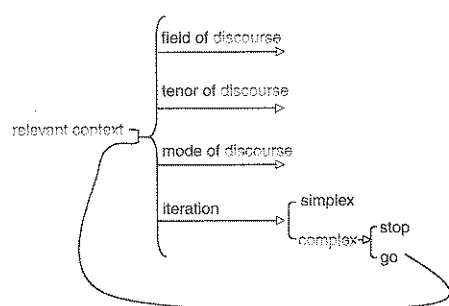

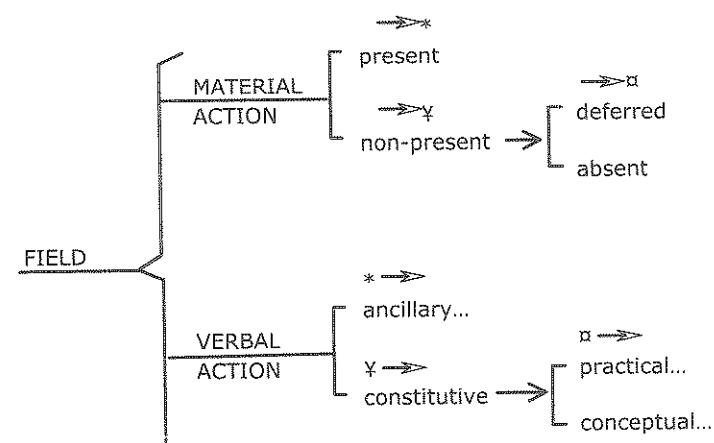FIGURE 3a   Parameters of systemic options in relevant context

FIGURE 3b   Primary systems of FIELD MK 1: (from Hasan 1999b: 279)
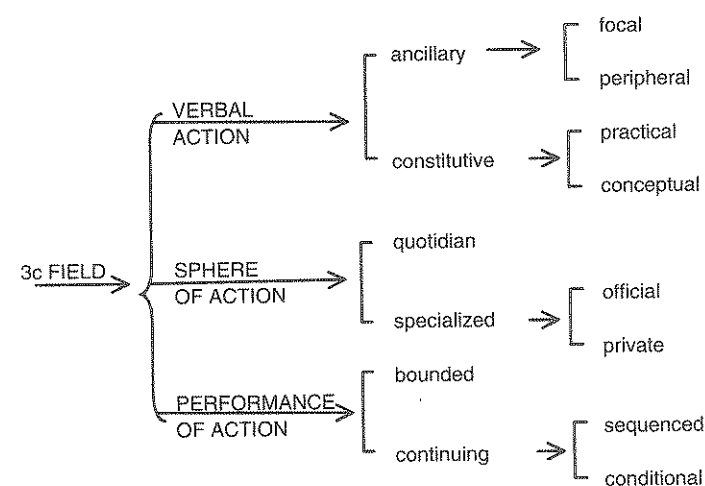

FIGURE 3c   Primary systems of FIELD MK 2: a tentative suggestion

in Hasan (1999b: 279), referred to here as 'FIELD MK1', which is reproduced as Figure 3b. As will be noted field-mk1 puts material action and verbal action on par as two vectors. This makes it necessary to build in a large number of constraints on the possible combinations of choices from these two vectors. As pointed out by Halliday,[25] this is less than desirable.

Figure 3c presents a tentative system network for field, called here FIELD MK-2. In this figure, only the vector of VERBAL ACTION is brought into the network; the

second vector is called SPHERE OF ACTION; the primary options of which are shown as SPECIALIZED and QUOTIDIAN. The third field vector is PERFORMANCE OF ACTION, with options BOUNDED or CONTINUING; the latter allows entry into a more delicate system SEQUENCED and CONDITIONAL. Time and space will not allow any detailed discussion, but a brief word on each of the field vectors of choice.

For the linguist the importance of material action is subsidiary to the verbal one: a non-verbal/material action becomes relevant only if it is encapsulated in the field of discourse by linguistic realization. The primary options in VERBAL ACTION remain as ANCILLARY or CONSTITUTIVE as shown in Figure 3b above. If verbal action is ancillary, the prediction would be that reference to some elements of the material situation is mandatory; these must include speaker, addressee, and the processes in which they are engaged while using language. If verbal action is constitutive, material action may or may not be present in the MSS; if it is present, its traces may be found in language use; however, there will be no direct reference to it except as interruption of some kind. Figure 3c shows ancillary and constitutive verbal action as mutually exclusive, and so they are, in general; there are, however, occasions of language use where quite regularly, ancillary verbal action will occur sporadically in the midst of overwhelmingly constitutive verbal action: consider for example, a classroom presentation of information where the teacher may say things such as 'take a look at this map' or 'find page 16 in your book'. These sayings contribute to the ongoing activity, and the issue that one faces is what importance to attach to such sporadic 'shifts': at what point does it become necessary to say that the context has changed. This issue has been discussed sporadically in SFL literature.

The primary options of SPHERE of action are called specialized or quotidian. This systemic contrast makes a distinction between such actions as cooking, bed-making, bathing the child, buying a bus ticket, shopping for food and so on, which are all quotidian actions, and specialized actions which typically entrain participation by 'trained' personnel. They tend to be institutionalized, which implies that such actions are culturally expected to keep to a certain routine. The variation in the degree of specialization is reflected in the option official v. private. The former are more ritualized e.g. court proceedings; medical procedures, police interrogations; by contrast, actions in the private sphere will have a relatively relaxed routine within a framework of fixed expectations: consider for example the daily national news, the TV interview, the newspaper feature articles, and so on. Together with the options that depend on conceptual constitutive verbal action, they will account for a large number of actions for which we use language. The third field system is called PERFORMANCE: its primary options are shown as bounded v continuing. A bounded action will by default complete in one spatio-temporally located interaction, for example shopping for fruit, bathing the child, getting the child a snack and so. By contrast, continuing performance of action will call for intermittent actions, each of which requires a distinct spatio-temporal location; for example, buying a car or a house is a different kind of action from that of buying vegetables; it will require different occasions for different so called 'stages' of activity, and some stages may occur recursively each on a different spatio-temporal site; the culmination of such separate but related actions will lead to a final state of accomplishment. The continuing action could be either sequenced as in buying cars or conditional as for example, a certain repeated effort and physical presence of the pupil form a condition for entry into final test; the revision action in the classroom presupposes that earlier an action of presentation of concepts/information has occurred.

The problem in constructing a system network of this kind is to keep in mind on the one hand the large variety of instances of language use, and on the other, the need to specify which contextual options will 'go with which other', what dependency and simultaneity relations there might exist among the various social practices in a community. For example, how realistic is it to say that verbal action in court proceedings could be ancillary? In other words much thinking has to be done to successfully describe the possible combinations and permutations of these features.

This last point is worth making: at no point could one have made the kind of objection to any feature entered in Hasan's (1978) contextual configuration in table 1. In fact disagreement with anyone's description of context presented nonsystemically is possible only if we have the language use in front of us and there is disagreement on the referential value of some linguistic pattern. Systemizing the possible relevant features of context makes the claims explicit, puts the relevant environment 'on line' and raises the options to the conscious level as an object under description. Thus the description can become a focus of discussion, and objections can be made as they were with regard to the description represented in field mk-1 (see Figure 3b). For such discussion, a text does not have to be present; simply the calibration of the options will point to problems if there are any. Naturally the problems are recognized on the basis of acculturation; if the analyst is not familiar with the context of culture, the nature of the situation will not be familiar either. Much more elaborate field networks with several realization statements will be found in Hasan (1999b) and in Butt (2003). For work such as this to proceed, discussions such as for example Bowcher's (2007) are essential. I would be so bold as to add that, incomplete and defective as the 1999b field network is, it is not any worse than the MOOD system networks drawn in the early 1960's SFL. It was the continued use and discussion of the network that led to today's versions.

3.6 Contextual configuration and text structure

The role of relevant context and particularly of the contextual configuration is central to the analysis of text in Halliday's SFL (Halliday 1977b; 1985, and elsewhere). Hasan (1973c) had already argued that the frequency of lexical

and grammatical categories might not be helpful in the recognition of a register; attention to the patterns of meaning prove more useful in this enterprise. Based on further research Hasan (1978; 1979; 1985 etc) later argued that recognition of a register depends on the range of possible structural shapes of texts that are seen in the community as instances of that particular register. Any text has one ACTUAL GLOBAL STRUCTURE (AGS) or what the formalists called schematic structure (Schank & Abelson 1977); but any one register enjoys a range of AGS, such that they have certain distinctive patterns in common. It is this distinctive pattern that is contained within a GENERAL STRUCTURE POTENTIAL (GSP). Discussion of how the selection of contextual features will result in the alteration of the AGS is found in Hasan (1978; 1979; 1985). She also suggested two different kinds of elements of GSP; (i) the OBLIGATORY elements that are always to be found in any complete instance of a register; and (ii) the OPTIONAL ones which realize contextual features that are not central to the definition of that specific register, and might in fact be responsive to some element of the MSS; in addition, the elements may have a FIXED order in sequence or they may be MOBILE within limits (Hasan 1984b). The critical register-identifying part consists of obligatory elements and their order in sequence, while the optional elements and optionality of order in structure is indicative of the range of variation within one register.

No two texts belonging to the same register are expected to be exactly alike – a feature that many scholars have commented on. When do the differences between two texts become such that they have to be seen as instantiating distinct registers? The onset of systemic description of contextualization, and conscious search for the relation of those features to the semantic level, suggests that the contextual features most relevant to the GSP – the recognition criterion for some specific register – are options that have primary to mid degree of delicacy. As we move further to the right end of the network, the options lose this power; instead they become critical to the texture of the text, emphasizing its unique instantial nature. Putting it simply, the register of two texts will not be different if in one case the speaker is buying potatoes in a retail store and breakfast cereal from another such store: but with potatoes weight and quality count and must be specified, whereas with breakfast cereal the default situation is to look for brand names and package size. It is elements of meaning such as these that will enter into texture, creating some kind of cohesive harmony pattern which will be unique to each text, though generalizations can be made about the text on the basis of the cohesive harmony patterns. However, attempts to decide on a common-sense basis, the purchase of which objects will form part of the same CC, thus predicting which register the CC pertains to, are likely to prove a futile exercise. It is not the object itself but the density of contextual relations that surrounds the object that will determine the matter. There is from a common sense point of view much in common between buying a blouse

and a length of some fabric, but an examination of the GSP of the two will most probably put them in different categories.

4 Concluding remarks

This chapter has perhaps contained more questions than answers. Certainly I am aware that the systemic description of context did not receive the kind of attention it deserves. There is no CC simply consisting of field: all three parametric choices must be seen together. Another important issue is the ways in which two or more context might combine – i.e., context conjunction – or they might form two or more distinct contexts within an interaction that is taking place between the same interlocuters in the same spatio-temporal location, i.e. disjunction of relevant contexts: is such conjunction and disjunction of context 'un-describable' from the system perspective? The arguments about the relationship of language and context and of system and instance suggest to me that this is not the case. In fact such descriptions have been provided for a long time (Goffman 1974; Cross 1979; Cloran 1994; 1999a; Hasan 1995b; 1999b). Some of the most interesting areas of study are how and when an ongoing text and its context can be subverted? Cloran (1982) in her research involving a range of different contexts demonstrated that it is in fact very difficult to achieve such change with an established context. In view of this, the reputed changes of conversational discourse stand in need of very close attention from the point of view of the relevant context. Is there a register change here or is there simply a con/textual serialization?

Notes

[1] This is also true of what Fawcett (1999) calls 'dialects of SFL', which explains the indefinite article in the title.

[2] The other two prominent models of context in SFL are those of Martin (1985b, 1992a) and Fawcett (1980; 1999); both are appreciably different from Halliday's theory of context. It goes without saying that the interpretation of the theory is mine. Readers might compare other authors' interpretations of both, e.g., Matthiessen 1995b; 2007a; Martin 1992a; 1999, and Fawcett 1999.

[3] As is well known, Halliday 1961 is the foundation of the Scale and Category model.

[4] Before Malinowski's appropriation of the term to refer to the cultural-situational phenomena in semiotic environments, 'context' had referred to 'environment' in general or to the linguistic environment in a text, i.e., to today's 'co-text'.

[5] The situation is changing with interest in multimodality; see for example Bowcher (2007).

[6] Even within the limits of SFL, this literature is too extensive to be referenced here in the traditional form in a publication of this scope. Beginning with scattered observations by Firth (1957b), followed by Mitchell (1957), and a large scale study by Huddleston, Hudson, Winter and Henrici (1968), and Halliday and Hasan (1976), text analysis really took off after Halliday (1977b) and Hasan (1978). By now a large number of scholars have made valuable contributions. Any bibliography of SFL publications will indicate very clearly the outstanding names in the field.

[7] Saussure had offered only two reasons for the elevation of langue as the only legitimate concern of 'linguistics proper': (i) that parole needs langue to achieve the desired effects; and (ii) that the study of parole is unfeasible due to its irregular nature. He undermined the strength of the first in granting that ultimately langue has its origin in parole; the second reason loses its force once context is integrated into linguistic theory. The autonomy of Chomsky's competence from everything social (at least in its initial appearance) makes the exclusion of performance from linguistics qualitatively different: it is impossible to support or refute the hypotheses about competence, since the scope of the concept has never been clear enough to be debated in any detail.

[8] The reader is invited to compare the figure representing 'the complete framework of levels for linguistic description' in Halliday et al (1964:18) with later figures which show context, semantics, lexicogrammar and phonology as linguistic strata.

[9] The first version of this figure was in Halliday 1991d; the second version in Ghadessy ed. (reprinted 2007) is the most explicit.

[10] I am not implying that such comprehensive description of any system is currently available in any approach, simply that the cultural and semiotic systems must be inclusive rather than exclusive, allowing for variation and change, characteristics that pertain to both language and culture systems.

[11] I have often commented (e.g., in my presentation to EESFLW, Gorizia 2006, and elsewhere) that realization is one of the hardest working concepts in SFL; it has been used for interstratal relations; also for the relation between system and structure; and of course as an interstratal relation it is both a dialectic, as at the higher three levels strata, and works as 'true' content expression where phonetics and phonology in relation to the content strata are concerned.

[12] For the concept of meta-redundancy, see (Lemke 1985; 1992d).

[13] Although Marie Smith Jones, the last speaker of Eyak, died barely a month ago (Guardian Weekly, 8/2/08 P28-9), her language actually died with the death of her sister in the early 1990s, because that is when the avenues were closed for the language system to develop and to change.

[14] The idea of 'less developed languages' has been anathema to linguistics, but this reaction is not based on careful thinking. To say that a language, such as English, was less developed in ancient times than it is today is not to imply that it lacked the potential to develop. In fact, so long as we do not think that the system of language is hardwired in the brain, we allow the possibility of growth and decline.

[15] These stories have been discussed in Hasan 1984a and 1984b, as well as in Hasan 1973a, b mimeo.

[16] The account of the developments described were brought about by a large number of colleagues; important amongst these to me was the work of Halliday, my immediate research students such as Butt, Cloran, Cross, Bowcher, Armstrong, and a wider community of colleagues such as Kress, Martin and those led by Michael Gregory in Toronto. My own work has foregrounded the role of meaning/semantics in identifying register varieties and in the realization of contextual features, as is evident from my attempts (Hasan 1973c; 1980).

[17] The term 'genre' was borrowed into SFL from Bakhtin by Martin (1985b and thereafter). Genre had been consciously avoided because like the term 'style' it carried connotations from its use in literary studies that did not fit the concept of register (hence also Bakhtin's modification by 'speech' in the term he used 'speech genre'). Genres in literary studies were innocent of Firthian-Hallidayan conceptualization of context; they were recognized purely by the global arrangement of their form. There was no reasoning for linking a literary genre and its instance, except literary conventions.

[18] We do not have adequate language of description for the relations I am describing here. Reference being experiential is particulate; it will concern elements of material situational setting, but the latter is capable of impinging in a non-referential way. Try helping your child solve a mathematical problem while engaged in cooking a complex dish – there will be hesitations, pauses, repetitions because the material situation is 'dividing' speaker attention. The language of the text might then bear traces of MSS, without there being any reference to any specific element of the MSS.

[19] These were listed in Hasan 1980, and were validated in an empirical research (Cloran 1982).

[20] Martin had begun referring to these as 'genre combination'; there are some obvious problems in this nomenclature (Hasan 1999b); I have preferred 'con/text integration/disjunction'.

[21] Many examples may be found, for example, in Vol 2 of Halliday's collected works.

[22] Attempts to produce consistent 'dynamic' i.e. instance based or pro-spective descriptive frameworks have typically fizzled out. The concept of pro-spective grammar was introduced by John Sinclair; for an example see (Ravelli 1995).

[23] Certainly there are problems especially in oral language use e.g. the *ums* and *ers*, the incomplete clause, the mid-clause changes in structure, the unmotivated repetitions, and sometimes an innovative pattern; but these have not been found to militate against either comprehension or analysis.

[24] Strictly speaking, Bowcher offers valuable critique of Hasan 1999b and attempts to extend that field network to cover multimodal phenomena; I am informed that Butt (mimeo) is being 'trialled' by researchers at Macquarie.

[25] I thank Michael Halliday who pointed out in a personal discussion that on the level of grammar or semantics this representation of constraint for choices across two simultaneous vectors would be considered 'ill-formed'. The issue is not simple and calls for a detailed discussion; but 3b offers field-mk2 as an attempt to correct this situation by exploring the possibility of building in material action through realization. A strong justification for this would be that material action is itself not in 'field': what is in field is reference to or traces of material action in the language of the text. Nonetheless it is important to say that the modifications built in 3c raise other serious problems. The problem is under investigation by a group of researchers at Macquarie University.