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CHAPTER 2

Modelling context

A crooked path of progress in contextual linguistics

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Abstract

In this paper I will try and review, hindsight permitting, the development of the research on text/context relations with which I have been involved in and around the Department of Linguistics at the University of Sydney over the past twenty years. This work has focused mainly on English texts, and has for the most part been funded with educational objectives in mind — reflecting the genesis of these ideas in my attempts to teach a course on functional language variation to MA students in our Applied Linguistics program. For recent accounts of this research see Egging and Martin (1997), Christie and Martin (1997), Martin and Veel (1998).

1. Inherited dialogism

My own undergraduate training had involved extensive work on text and context as part of Michael Gregory's English program at York University in Toronto. There I was introduced to Gregory's scaffolding for context (field, mode, personal tenor and functional tenor; Gregory 1967; Gregory and Carroll 1978). In Sydney, I usually taught students who had completed a course in functional grammar with Halliday (later documented in Halliday 1985/1994), many of whom would have run into his alternative three term scaffolding (field, mode and tenor; e.g., Halliday 1978). The differences between these models often worried students, who found them unsettling at this early phase of their studies.

So debate about modelling context was always in the air (from at least 1978 when I first began lecturing in the program).

It was through this teaching that I first met Frances Christie and Joan Rothery, who got me interested in the applications of systemic functional linguistics (hereafter SFL) in education, especially literacy teaching. I worked closely with Joan Rothery on student writing from this period. Joan was interested in a model of context that could be used with teachers to inform literacy teaching, and our collaboration with Christie led to the development of Australia's distinctive genre-based literacy programs in primary and secondary schools, alongside adult ESL and tertiary EAP programs developed by colleagues trained in the same Applied Linguistics program (Christie 1992; Martin 1993a; Cope and Kalantzis 1993; Hasan and Williams 1996; Rothery 1996; Hyon 1996; Martin 1998). During the early 80s Joan and I worked closely with postgraduate students in the Department, most of whose concerns lay outside education (Suzanne Egging, Chris Nesbit, Guenter Plum, Lynn Poulton, Cate Poynton, Anne Thwaite and Eija Ventola); we met weekly over a period of two years, looking at ways of modelling a range of registers, including casual conversation (Egging and Stade 1997), spoken narrative (Martin and Plum 1997) service encounters (Ventola 1987), doctor/patient consultations and so on. Early on, then, educational concerns had a much smaller registerial impact than might appear in retrospect.

Nevertheless, in was partly in the context of worrying about how to model context for teachers that Joan and I, in consultation with Guenter Plum, made our first attempts to reconcile the Gregory and Halliday positions. Their context variables are outlined in Table 1, alongside an earlier framework by Halliday, and work by Ure and Ellis (1977) and by Fawcett (1980); clearly the tension between a three and four term framework was widespread in SFL models of the period (Young 1985).

Table 1. *Some alternative SFL models of context*

Halliday et al. (1964)	Gregory (1967)	Ure and Ellis (1977)	Halliday (1978)	Fawcett (1980)
field	field	field	field	subject matter
mode	mode	mode	mode	channel
style	personal tenor	formality	tenor	relationship purpose
	functional tenor	role		pragmatic purpose

One of our main concerns was the apparent practical utility of the concept of functional tenor, reasoning from the perspective of context — as opposed to the lack of a distinctive metafunctional correlate for functional tenor in language, once the paradigmatic and syntagmatic organisation intrinsic to language was taken into account. Gregory's model, in order words, did not mesh as nicely with metafunctions as Halliday's did. Halliday's suggestion (e.g. 1978) that metafunctions correlate with contextual variables (in the proportions interpersonal is to tenor, as ideational meaning is to field, as textual meaning is to mode) is outlined in Table 2 (for discussion see Martin 1984a, 1991). In short, the notion of global purpose seemed to give us a nice handle on text, which couldn't be easily reconciled with the intrinsic functional design of language as developed by Halliday.

Table 2. *Linguistic metafunctions in relation to contextual variables*

	reality construal	contextual variable
INTERPERSONAL	social reality	tenor
IDEATIONAL (logical, experiential)	'natural' reality	field
TEXTUAL	semiotic reality	mode

2. Towards stratification (Martin and Rothery 1980)

Our first attempt at reconciliation came in Martin and Rothery (1980), a working paper reporting on the first phase of our literacy research. This involved treating functional tenor as a variable unlike the others, and placing it in a underlying position with respect to field, (personal) tenor and mode — through which context variables it was realised. This seemed to us to have the advantage of consolidating Halliday's suggestion that field was naturally related to ideational meaning, tenor to interpersonal meaning and mode to textual meaning while at the same time making room for a variable that ranged across metafunctions in terms of realisation and could be used talking globally about a text's social purpose. This move is outlined in Figure 2.

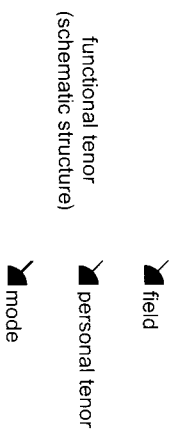


Figure 2. *Functional tenor as a superordinate variable*

During this period (1980–1982) we were also very much concerned with text structure, drawing on work by Mitchell (1957/1975) (on service encounters in Morocco), Hasan (1977, on appointment making) and Labov and Waletzky (1967) on narratives of personal experience. It seemed to us that functional tenor, because of its concern with global text organisation, was the appropriate contextual variable to associate with text structure (which we referred to as schematic structure, as in Figure 2). Later we renamed the underlying functional tenor variable genre, to avoid confusion with personal tenor (the latter tenor) and to consolidate the association with text structure. By 1982 our presentations used the term genre to refer to staged purposeful social processes, modelled at a deeper level of abstraction than field, mode and tenor variables (e.g., Martin's 1982 presentation to the International Systemic Functional Congress in Toronto, published as Martin 1985a); and the term register came to be used as a cover term for field, mode and tenor variables.

By 1982 the nature of the relationship between genre (functional tenor) and field, tenor and mode had been further specified in relation to work by Hjelmslev (1961) — in particular his comments on connotative semiotic systems whose expression plane was another (i.e., denotative) semiotic system. This seemed to us an apt characterisation of the relationship between contextual variables such as field, mode and tenor, which following Halliday (1978) we saw in social semiotic terms, and language (Martin 1984a, 1985a, 1986a). We began at that time to draw the relationship between connotative and denotative systems as outlined in Figure 3, with language as the expression plane of the social semiotic systems of register — with register as language's content form.¹

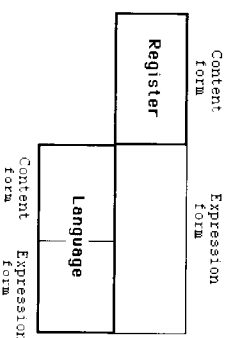


Figure 3. *Language as the expression plane of register (i.e., field, tenor and mode)*

At the time, of course, we did not anticipate the range of misunderstandings this Hjelmslevian reading of SFL might incur (cf. Hasan 1995). For the record it may be worth clarifying a few issues:

- following Halliday (1978), we were as far as possible trying to model context as a semiotic system rather than something material or mental; thus the attraction of Hjelmslev's notion of a connotative semiotic.
- it seemed to us that the realisation relationship between context and language was unlike that across strata within language in that context manifested itself by skewing probabilities in linguistic systems (a symbiotic relationship as we thought of it at the time); thus the attraction of a “stepped” diagram which distinguished the realisation relationship between register and language from realisation across strata within language.
- in terms of genesis the model re-reads aspects of Firthian and Hallidayan theory from the perspective of European structuralism (Saussure via Hjelmslev — and early Barthes).
- the term register was preferred to context of situation in part of because of our concern to get away from the materialist (i.e., non-discursive) readings the term context invites.
- the model was not intended to be different from Halliday's as far as the realisation relationship between field, mode and tenor and language was concerned (probabilistic realisation as noted above; Plum and Cowling 1987; Nesbitt and Plum 1988); where Halliday uses the term context of situation, we used register (which term Halliday restricts to the realisation of context of situation in language) — this difference is purely terminological.
- we did not intend the register to language realisation relationship to be read as arbitrary (on the model of expression form to content form in language), probably because we didn't see the relationship between lexicogrammar and

phonology in SFL as arbitrary, preferring a Firthian model in which meaning is made at all levels; from Martin (1986: 226), written in 1984, ‘Following Firth (1968: 174) it [i.e., the model] views each level as contributing a layer of meaning to text’; indeed I objected over the years to Halliday’s practice of stripping the phonology of meaning by moving some of its key meaning making systems to lexicogrammar² (e.g., tonicity interpreted grammatically as information structure, or tone interpreted grammatically as key).

— finally, the concern with synoptic and dynamic modelling announced in Martin (1985a) grew out of work on exchange structure and genre structure, and was not to our mind a motivating factor as far as the layered model of context in Figure 4 below was concerned (cf. Hasan 1995 who sees the issue of contextual strata and synoptic/dynamic modelling as closely related).

Once the Hjelmslevian modelling was introduced, it seemed natural to extend it to the relationship between genre (formerly functional tenor) and register — leading a model with genre and register as layered connotative semiotics. In this stratified model of context, genre and register are social semiotic systems realised through language. Turning this around, language functions as the expression plane of register, which in turn functions as the expression plan of genre (as in Figure 4).³

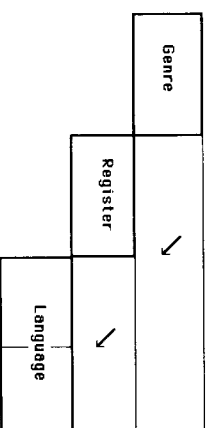


Figure 4. Register (and thus language) as the expression plane of genre

Our ambition, not yet consummated, was to map culture as a system of genres — with genre described in terms of ‘how things get done, when language is used to accomplish them’ (Martin 1985a: 250, written 1982), as ‘staged, goal-oriented purposeful activity’ (Martin 1984b, written 1983) or as ‘staged goal-oriented social process (Martin 1986: 246, written in 1984). Over the years I think I have lost sight of how challenging it was to adopt a social as opposed to a cognitive perspective and to reconstrue language as a resource for making meaning rather

than a conduit for expressing thoughts and feelings. As far as our education work was concerned we had to accomplish this reorientation to have a voice — for language to matter to teachers in terms we could deal with. As linguists we were looking for a model of context that could be used to explore the functionality of language in relation to how it is used. The notion of genre as a connotative social semiotic system gave us the handle on context we needed to pursue these concerns.

3. Stratifying register and genre (cf. Martin 1992: 504–507)

Our stratified model of context as register and genre turned out to be one of the more controversial aspects of our work, so much so that over 1/3 of Fries and Gregory (1995, one of Halliday’s three Ablex Festschrift volumes) is devoted to a 100 page article critiquing it. Over time, the advantages of a stratified model have appeared increasingly compelling to me, on theoretical and thus practical grounds. I’ll raise just seven points of discussion here, each of which could be expanded into a paper; to date, only the sixth point has been so expanded, as Martin in press.

(i) *the need for a multi-functional characterisation of genre* — since it seemed to us impossible to associate the accomplishment of genres as staged goal-oriented social process with any one metafunction (ideational, interpersonal or textual) or correlating register variable (field, tenor or mode). Here we were explicitly resisting Halliday’s association of genre with mode, e.g., ‘mode covers roughly Hymes’ channel, key and genre’ (1978a: 62; for discussion see Martin 1992: 499–501). For us genre redounded simultaneously with field, tenor and mode, and thus with ideational, interpersonal and textual meaning (see also Gregory and Carroll 1978: 44–45 rejecting Halliday’s association of genre with mode).

(ii) *the desire to strengthen field, mode, tenor and metafunction solidarity* — since without this solidarity the field, mode and tenor triumvirate proposed by Halliday seemed undermined (in relation to say Hymes 1972 SPEAKING grid). More seriously, without this solidarity the elegance of SFL as an explanation of why language is the way it is in terms of how language is used seemed to us to be seriously compromised (Martin 1991). We were also keen to facilitate quantitative studies of register, which might in part be used as evidence for register and metafunction solidarity — drawing on methodology pioneered in Horvath (1985) and Biber (1988) (cf. Plum and Cowling 1987; Nesbitt and Plum 1988; Horvath

and Eggins 1995). It seemed to us that a relatively strong hypothesis about the association of register variables and metafunctions was a better place to start this research, and that removing notions of rhetorical mode, pragmatic purpose, role, rhetorical mode, genre, functional tenor and so on from the field, mode and tenor plane and consolidating them as a more abstract level of genre was the best way to strengthen the hypothesis.

(iii) *the importance of accounting for the combinations of field, tenor and mode variables a culture recurrently exploits* — since if they are proposed as simultaneous social semiotic systems, then field, tenor and mode options willily overgenerate the meaning potential taken up by a given culture. Register, in other words, is not like grammar, where at clause rank experiential, interpersonal and textual options combine relatively freely (Mathiessen 1995). We were interested in what a culture does in relation to what it doesn't do. In our stratified model, the plane of genre was responsible for specifying just which combinations of field, mode and tenor options were regularly phased into social processes. To put this in terms of an aspect metaphor, register constrained by genre represents reality activity — what we have done that we still do; register unconstrained by genre represents irrealis activity — what we may have stopped doing and/or might one day do. Genre states the meaning potential that is immanent in a culture; register allows for what could be. In this work we were influenced by Lemke's notion of disjunctions (e.g. Lemke 1995), which he described to us as systematic gaps in a culture's meaning potential — gaps upon which the uneven distribution of power in a culture in part depends.

(iv) *the question of handling variation in field, tenor and mode from one stage to another within a genre* — since it was clear to us that field, mode and tenor values may shift from one stage of a genre to the next, as part of the accomplishment of a social process. The coherence which derives from texts being 'consistent in register' (Halliday and Hasan 1976: 26) does not mean they are the same in register throughout, but simply that register values complement each other as a genre moves from one phase to another. This logogenetic focus on text development reflects our interest in dynamic modelling of genre and exchange structure at the time (Martin 1985a; Ventola 1987); we were particularly influenced by Rothery's unpublished work on register shifts in doctor/patient interviews — from initial consultation to examination to diagnosis.

(v) *a concern with the distinction between activity sequences (field time) and generic structure (text time)* — since in our work we had to deal with texts in

which the unfolding of a text matched the unfolding of the institutional activities construed (e.g., procedures, sequential explanations, recounts, most narratives — Martin 1985b), as well as texts in which the development of the text did not match the chronology of the events implicated (e.g., expositions, news stories — Christie and Martin 1997), or in which institutional activity was not really foregrounded (e.g., reports, descriptions — Martin 1993b). For us a given field was defined as a set of activity sequences oriented to some global institutional purpose, alongside the participant taxonomies and nuclear relations involved in these sequences (Martin 1992); this meant that when institutional activity was not responsible for shaping the unfolding of a text, this development had to be specified elsewhere. Genre was made responsible for determining the phased unfolding of text, which might reflect more or less closely the activity sequences of a field. The degree to which a text reflected field time was by and large determined by mode — with language in action texts more isochronous than language as reflection ones (Halliday and Martin 1993, Chapters 2, 10, 11).

(vi) *the formalisation of trans-metafunctional valeur* — as part of our ambition to map a culture as a system of genres, we were concerned to show how the combinations of field, mode and tenor variables a culture regularly phased into social processes were related to each other. Obviously they were related in terms of field agnation, tenor agnation and mode agnation, as the plane of register would describe. But beyond this we were asking how kinds of story were related, or kinds of exposition, procedure, report and so on. In other words we wanted to know not just how a genre like recipe was related through the field of cooking to other domestic tasks and more general hospitality industry functions, or through the tenor of apprenticeship to other pedagogic relationships, or through the mode of writing to other spoken or electronic modalities; but in addition we wanted to know how recipes were related generically (as a bundle of regularly recurring field, mode and tenor selections) to other procedural genres (instruction manuals, scientific procedures, furniture assembly directions etc. — Rose et al. 1992) and beyond this to other regulating genres (rules, laws, administrative directives etc. — Iedema et al. 1994). This concern with generic intertextuality (Martin 1991), and the notion of genre as system it entails, seems to me the most compelling factor motivating a stratified model of context. For more detailed discussion and exemplification see Martin in press; for seminal work on resources for specifying genre relations see Lemke in press, Martin and Mathiessen (1991).

(vii) *the problem of contextual metaphor* — by which I mean the use of one text type to stand for another. We ran into this phenomenon quite commonly in our education research, since during the 80s progressive educators were pushing the notion of language across the curriculum — by which they meant the use of subject English genres across the curriculum (i.e., story writing in science, poetry in maths etc.; see Martin 1990). A good example of contextual metaphor is Carle's (1974) story *The Very Hungry Caterpillar*, which tells the story of a very hungry caterpillar who eats and eats and then builds a cocoon and turns into a beautiful butterfly; on another level the story functions as a scientific explanation of metamorphosis. The point of using the narrative is to make the explanation more digestible for children (I think they certainly enjoy the story, though I don't accept the childist ideology motivating this use of narrative in primary and secondary school; Martin 1985b). The advantage of a stratified model of context is that we can say that on one level (register) a story like *The Very Hungry Caterpillar* by and large reflects the phasing together of field, mode and tenor choices we recognise as narrative, but on a deeper level (genre) the story functions as well as an explanation, normally realised institutionally through a complementary selection and phasing of field, mode and tenor variables (of course for this to work there must be signals in the text that it is to be read metaphorically, on two levels, with the point of the text having to do with the tension between the two; for further discussion of contextual metaphor see Martin 1997a, b). I am developing the term contextual metaphor here, and the notion of stratal tension, by analogy with Halliday's (e.g. 1985/1994) work on grammatical metaphor as tension between wording and the meaning the wording represents.

4. Modelling stratification

It is probably fair to argue that in 1981/1982 we lacked some of the resources we needed for clarifying our perspective on genre in relation to register and language. For one thing we were just coming to terms with Lemke's (1995) notion of metaredundancy (the notion of patterns of patterns of...) and how it could be applied to interstratal relations. For another, Halliday's grammar was still growing beyond the 15 page hand-out stage, and so our appreciation of the significance of the Token/Value relation in relational clauses as a tool for thinking about layers of abstraction was inadequate. Beyond this we were probably unhelpfully vague about the distinction between realisation as an

inter-stratal or inter-rank relationship and instantiation (also called realisation) as the manifestation of system in process (of systemic potential in textualised actual). This may have masked for us the way in which Halliday was managing the relationship between context of culture and context of situation at the time, which he saw as related by realisation, meaning instantiation; whereas when our educational colleagues talked about context of culture (i.e., genre) realised in context of situation (i.e., register) they meant inter-stratal realisation, not instantiation. I can remember an unresolved discussion at a seminar in 1982 during which Eija Ventola, who had done her MA with Hasan at Macquarie University, raised this issue — which remained less than resolved pending the publication of Mathiessen (1993).

In 1981/1982 we were also just beginning to use images to construct and model theoretical relations — and weren't sufficiently aware of how images might colour other's readings of our work. Later on, largely as a result of more contact with Mathiessen and his concern with representational issues and grammar as a resource for theory building (e.g., Mathiessen 1989, 1991), we adopted the co-tangential circles imaging designed by Halliday for inter-stratal relations. A sample of this imaging is presented in Figure 5, for the relation between language and social context (denotative and connotative semiotics in Hjelmslev's terms). In modelling of this kind, linguists' reality begins in the lower right hand corner, anchoring their perspective in phonic or graphic substance, with layers of abstraction added towards the upper left of the diagram. Circles are used to symbolise the fact that we are dealing with naturally evolving systems, not technologically designed ones. In Figure 5 I've included a two-headed arrow to represent the two-way dialectic of realisation relating language to social context — since language construes, is construed by and, over time, reconstructs and is reconstructed by the social. This realisation relationship involves metaredundancy, with social context modelled as a pattern of linguistic patterns. We end up with an image that presents language as base, and context as a more abstract level of sociosemantic superstructure — a functional linguistic inversion of traditional Marxist analysis.

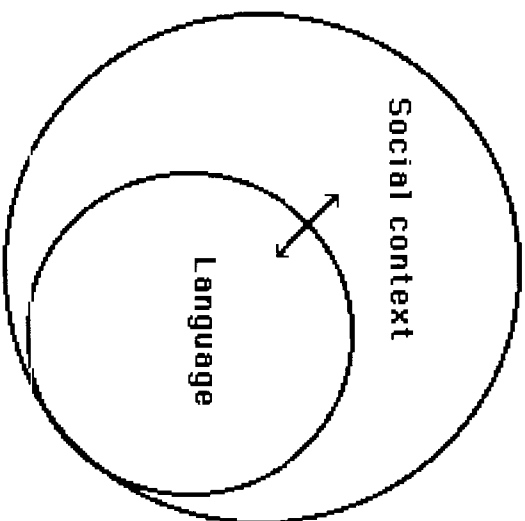


Figure 5. *Social context metarerounding with language*

This kind of modelling seemed to me to be quite compatible with our earlier representations, noted in Figures 3 and 4 above — and nicer to look at, so I took it up (with Matthiessen's help; e.g., Martin 1991; Martin 1992). Halliday's projection of intrinsic onto extrinsic functionality can be added to the imaging as in Figure 6 — which has both language and context organised by metafunction (as designed for Halliday and Martin 1993).

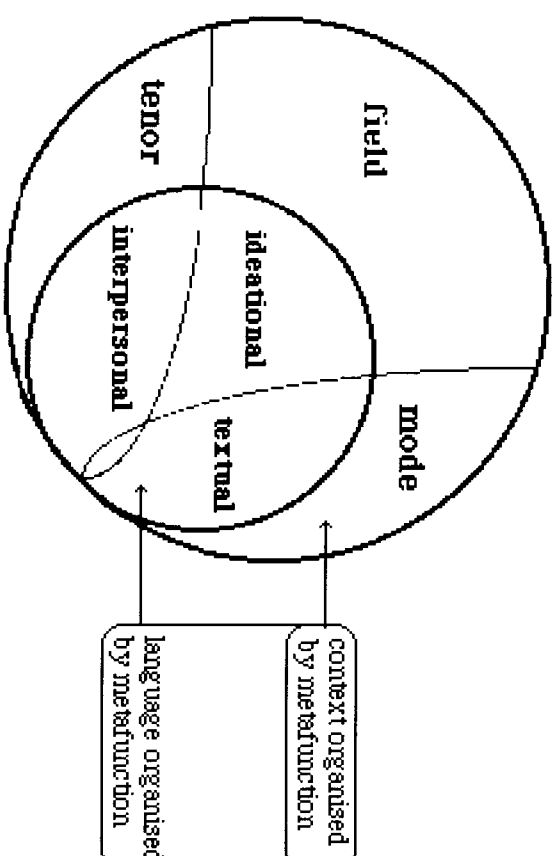


Figure 6. *Language and social context partitioned by metafunction*

The same resources were used by Halliday and Matthiessen to model stratal relations within language, along the lines of Figure 7 below — which however uses my term discourse semantics for the third stratum, by way of emphasising the fact that the unit of analysis we are considering in functional semantics has to be the text, not the clause (Gleason 1968; Halliday and Hasan 1976). I've thickened the line around phonology/graphology in Figure 7 to symbolise the line of experiential arbitrariness one finds in language as far as the solidarity relations between morphemes and segmental phonology is concerned. Although I have misgivings about putting too much emphasis on the arbitrariness of phonology with respect to lexicogrammar, since rhythm, intonation and phonaesthesia are all meaning-making phonological resources, the fact of some degree of experiential arbitrariness (cf. Kress 1997) does give us pause to consider to what extent the move from phonology to lexicogrammar is like or unlike that from lexicogrammar to discourse semantics. Halliday has preferred to describe the lexicogrammar to semantics move as natural, as is the move from language to social context (Halliday and Matthiessen in press), in opposition to the phonology to lexicogrammar move which he treats as arbitrary. I think the important point here

is that form a functional perspective there is a general tendency towards naturalness across levels. Note in relation to Hjelmslev that SFL stratifies his content plane.

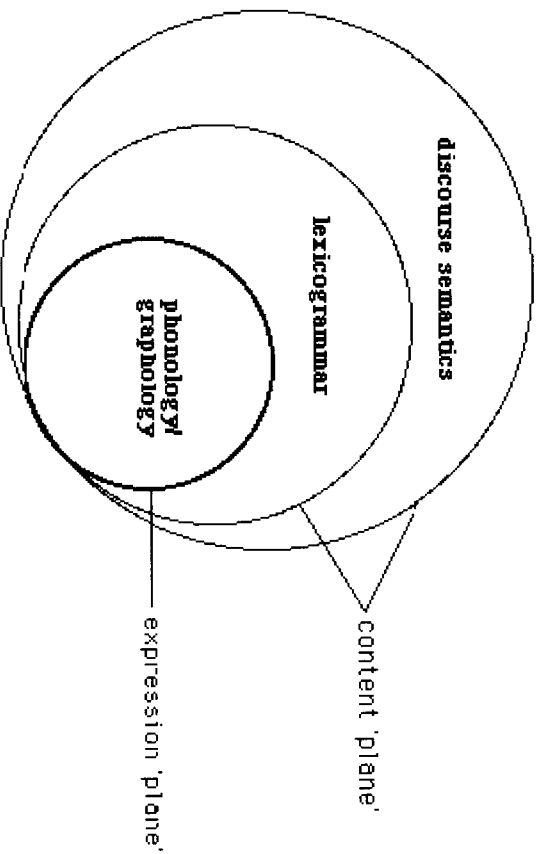


Figure 7. *Linguistic strata, including a stratified content plane*

In a similar way our model of register and genre stratifies language's content plane — dividing social context into levels of register and genre. Figure 6 is elaborated along these lines as Figure 8 below (subsuming the language levels specified in Figure 7 above). In this model genre metaredundancy with register which in turn metaredundancy with language; in other words, genre is a pattern of register patterns just as register represents patterns of language patterns. Register offers a metafunctionally diversified perspective on context, while genre affords an orientation that transcends any one metafunction — posing the issue of inter-generic relations as a fundamental descriptive concern.

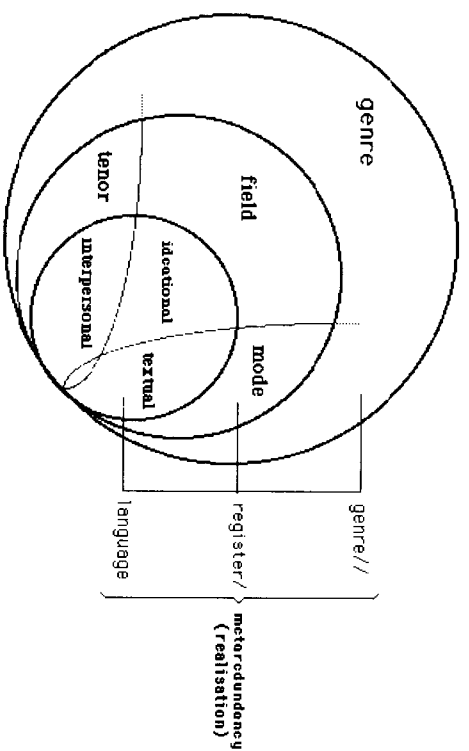


Figure 8. *Language and context, with a stratified content plane*

One of the difficulties with metaredundancy modelling of this kind is that it makes the realisation relationship across each stratal frontier look the same. And from the point of view of metaredundancy theory the relationship is the same — a pattern of patterns. However, as noted here and there above, the probabilistic realisation of register through language is a different kind of relationship to the partly arbitrary realisation of lexicogrammar in phonology; and the relationship of lexicogrammar to discourse semantics is different yet again (see especially Martin 1992 for discussion of the stratification of textual and interpersonal meaning, and Halliday and Mathiessen in press for a stratified account of ideational resources). By 1993 I had begun to wonder if it might not be helpful to complement the co-tangential circles metaredundancy modelling of Figures 4–8 above with an adaptation of the stepped box imaging used earlier — in order to focus attention on the different kinds of realisation across levels, alongside their similarities. This adaptation is outlined as Figure 9 below, and suggests a proportionality between the realisation of genre in register and the realisation of discourse semantics in lexicogrammar. Genre and register in this imaging represent complementary perspectives on context (language's content plane), much as discourse semantics and lexicogrammar represent complementary faces of the meaning making resources constituting language's own content plane (Martin 1977a, in press).

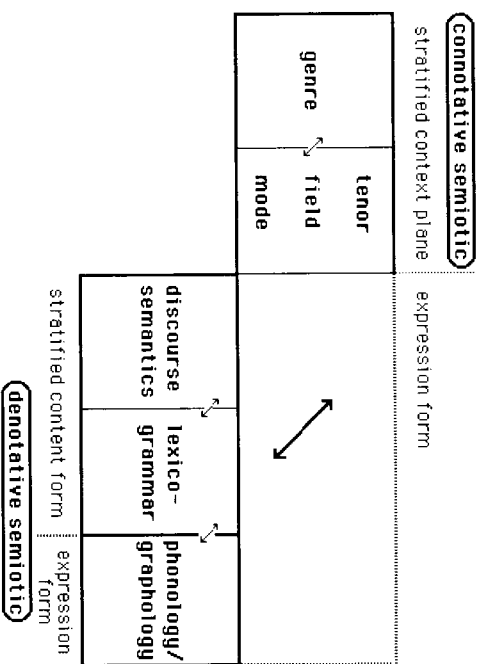


Figure 9. *Stratified content planes — for context and language*

Complementarity at the level of social context has to do with whether or not one adopts a metafunctionally diversified perspective; complementarity at the level of language has to do with whether one takes the text or the clause as point of departure for describing meaning making resources. Complementarity at the level of context can also be read in aspectual terms, as noted above — as realis practice (genre) in relation to possible futures (as overgenerated by register). From this modelling flows the analogy between contextual metaphor and grammatical metaphor introduced above.

5. A note on genre agnation

As noted above, we were interested in mapping culture as a system of genres — as a set of agnate⁴ social processes. We felt at the time that Hasan's notion of generic structure potential (hereafter GSP) would be an inadequate resource for this task since it was limited to accounting for variation among text types which shared obligatory elements of structure; we were in addition interested in relationships among genres with distinctive obligatory elements. We also considered that the generative power of her structural formula notation would not be adequate for our purposes and that we would be better served by drawing on

the full axial power of a system/structure realisation cycle such as that designed by Halliday and his colleagues in the 60s (Halliday and Martin 1981) and elaborated by Matthiessen in the context of computational research (Matthiessen and Bateman 1991).

The deployment of system networks to model genre relations is explored in Martin (1992, 1993b, in press), drawing on the inter-generic relations first documented in Martin (1985b). Consider for example four genres:

– personal recount (3 examples), from infants school; texts with a first person narrator, specific participants and action processes organised around sequence in time:

(1) I went to the Easter-show last Monday I got the Rainbow-Bag My little brother got Supper-Wheels Bag and my step-mother baot the Agros Lolly-Bag that we ate when we got to eat when we got home.

(2) in the School Holidays I went camping and I got robbed while I was asleep and I went to the beach.

(3) I went to Mossy Point. and my little brother my dad and me went fishing but we didn't catch anything. and when we went down to the creek I went across the creek on my Boogie Bord. and my step mother boght me...

– historical recount, from secondary school history; texts written in the third person, with generic and some specific participants (the great men of history) and action processes organised around setting in time:

(4) Mao knew that the Taiping rebel Shi Dakai was defeated by Qing forces because he waited too long to cross the river and he was determined to cross quickly. On 24 May Mao's troops captured a bridgehead at Anshunchang ferry crossing. But after three days battling the rapids, exposed to Nationalist bombing, it became obvious that the red Army would be caught by pursuing Guomindang troops unless another crossing were found.

In an incredible march, a Communist regiment under Yang Chengwu covered 145 kilometres in twenty-four hours along the precipitous west bank of the river. But the Nationalist forces were waiting for them. The Nationalists had removed the horizontal planks from the 100 metre suspension bridge, which was about 12

metres above the turbulent river. A crucial situation had developed. With Chiang's troops closing in, the Red Army would be trapped and exterminated unless the bridge were taken.

Under covering fire from rifles and machine guns, an assault team of twenty-two under Liao Dazhu began what appeared to be a suicide mission. With guns and broadswords strapped across their backs, they swung like monkeys from chain to chain. Four were hit and dropped into the raging torrent below, but the survivors reached the flooring that had been left on the northern bridgehead and, using their grenades, routed the defenders. Within two hours the town was captured and the Red Army again escaped Chiang's trap. Having eluded the enemy the Long Marchers steeled themselves to face the barrier of the Great Snowy Mountains. [Buggy 1988: 233]

– description, from a contemporary novel (in translation); texts written in the third person, about specific participants, with mainly relational processes not sequenced in time:

- (5) He lead us through the restaurant. It's a large round room with a dance floor in the middle. In the background there's a long, dimly lit bar. On a raised platform a jazz quartet is playing, soft and anonymous. The tablecloths are pale yellow, the walls cream coloured, the bar stainless steel. All the walls are decorated with rivets, and the door frames are a metre thick and furnished with bolts. The whole thing is designed to resemble a safe, and it's solid, expensive, and as oppressively cold and alienating as an end-of-season dance in a bank vault. Part of one wall has windows facing the water. Beneath the windows you can make out the grey ice floes along the frozen shore. [P Hoeg *Miss Smilla's Feeling for Snow*. London: Flamingo. 1994. (translated from the Danish by F David)]

– report, from primary school teaching materials; texts written in the third person about generic participants, using relational processes for description and material processes for behaviour, not sequenced in time:

- (6) Dolphins
Dolphins are sea mammals. They have to breathe air or they will die. They are members of the Delphinidae Family.
Dolphins have smooth skin. Only baby dolphins are born with a

few bristly hairs on their snouts. These hairs soon fall out. They have a long tail and the fin on the top of their back keeps the dolphin from rolling over. The female dolphins have a thick layer of fat under their skin to keep them warm when they dive very deep. The dolphin's front fins are called flippers. They use them to turn left and right. Dolphins grow from 2 to 3 metres long and weigh up to 75 kilograms.

Dolphins hunt together in a group. A group of dolphins is called a pod. They eat fish, shrimps and small squid. They live in salt water oceans. Dolphins can hold their breath for six minutes.

When dolphins hear or see a ship close by they go near it and follow it for many kilometres. Dolphins can leap out of the water and do somersaults. Sometimes they invent their own tricks and stunts after watching other dolphins perform.

Dolphins are very friendly to people and have never harmed anyone. They are playful animals. [Macken et al. 1989: 21]

By comparing and contrasting genres along these lines we move from a conception of genre as a kind of text (with stages) to a conception of genre as a system of texts — from which we select according to our social purpose. This is the notion of genre as a resource for meaning — a meaning potential. The relations outlined above can be tabularised in a paradigm — a two-dimensional display of their agnation (Table 3 below).

Table 3. *Intertextual relations among four genres*

	particular	generalised
activity focused	personal recount	historical recount
thing focused	description	descriptive report

As we complicate the picture, however, drawing more genres into the picture, the two-dimensionality of the paradigm quickly saturates, and the descriptive power of a system network is more appropriate. Suppose for example we wish to build procedural texts into the picture:

- procedure, from secondary school science (Veel 1992); imperative texts about generic participants, with action processes sequenced in time:

- (7) *Title/Goal* Seed experiment
Steps Collect 2 petri dishes.
 Place a thin layer of soil in one dish and some cotton wool in the other dish.
 Label the dish with soil "soil" and the other dish "no soil".
 Next, place about 20 seeds in each petri dish.
 Spray each dish with water until it is damp to touch.
 Finally, put the dishes in a warm sunny spot in the classroom.

These texts seemed closest in meaning to historical recounts, in that they consist largely of temporally organised action processes involving mainly generic participants; the main difference seems to be one of mood — historical recounts are declarative (macro-propositions), whereas procedures are imperative (macro-proposals). The possibility of this generic selection is introduced into the account in Figure 10 (which incorporates the agnation outlined in Table 3).

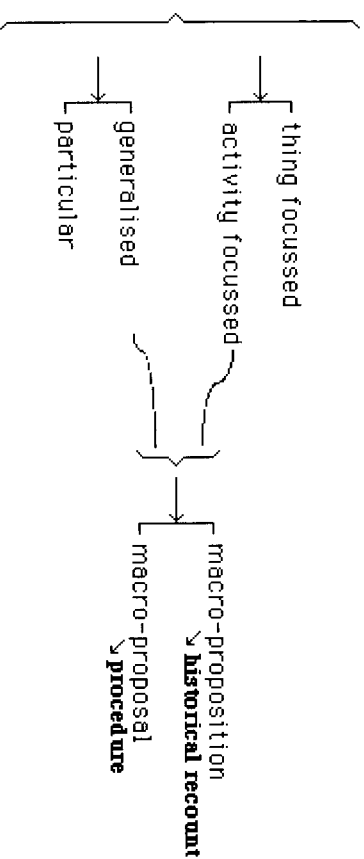


Figure 10. *Genre topology — system network notation*

This approach to modelling genre relation is ultimately based on the Saussurian notion of value — choices are opposed categorically in systems, and any text instantiating the systems has to be categorised as manifesting a given feature or not. Technically this approach to agnation is known as topology. This is complemented theoretically in SFL by the notion of topology (Lemke, in press, Martin and Matthiessen 1991), which we drew on extensively in our later work. Lemke describes topology as a set of criteria for establishing proximity among categories; the best known example of this approach to agnation is the front cover of the (1994) edition of Halliday's *Introduction to Functional Grammar* which

displays a topology of English process types, with degrees of proximity symbolised by a spectrum of colour. The topological perspective on agnation allows us to deal with gradience when modelling genre relations, and also with the notion of what are sometimes called mixed genres (see Martin 1991 for discussion).

The issue of gradience can be illustrated with respect to a cline of recounts from personal through biographical to historical reconstructions of the past. Text 8, from an interview with Halliday (Hasan et al. 1992) involves an auto-biographical text. The time frame considered is longer than is typical of personal recounts (often just a few hours or a day or two long) but shorter than for historical recounts (less than one life-time, as opposed to multi-generational history writing); the participants are more of a mix of specific and generic ones; the temporal organisation involves both sequencing in time (via conjunctions) and setting in time (via marked Theme circumstances of location in time):

(8) RH

MAKH

But when did you make your real contact with linguistics, Michael? When is it that you actually began to feel that linguistics has a possibility for providing answers?

Well, it was through language teaching. When I left school, it was to take the services' language training course. They took us out of school about eighteen months before we were due for national service, to be trained in languages. I was just seventeen when I left school and joined this program. Now those courses were being run at SOAS. During those eighteen months we certainly heard the name of Firth and we heard that there was such a thing as linguistics. But I don't think I learned anything about it. The initiative had originally come from Firth at the beginning of the war, who said that there was obviously going to be a war in the Far East and in Asia and it was time that they trained some people in Asian languages. They shelved this for a while but eventually they got the thing going. The first thing I encountered was a language aptitude test designed by Firth. So when we went from school we were all called up to London for two or three days and we were given these tests and interviews. This test had two parts: one was a general language aptitude, to find out if you could code made up languages and it was very, very good. Then, there was part of it which

was language specific. There were four languages in the program: Chinese, Japanese, Turkish and Persian. I remember one of the things you had to do was to recite from memory an increasingly long list of monosyllables on different tones. Now I had in fact wanted to do Chinese anyway and I came out alright on the ones which favoured Chinese so I got my choice. But I presume that if somebody had put Chinese first and it turned out that they couldn't hear a falling tone from a rising tone, they'd have switched them into Persian or some other language.

The issue of so-called mixed genres can be illustrated for reports and explanations. In the following text there is a marked shift from reporting to explaining (organised around sequence in time), at the point where the text takes up its description of how the race is run — after which the report resumes.

- (9) *Dog Racing*, also called *greyhound racing*, is a sport in which greyhounds compete on an oval track. The dogs chase a mechanical lure that resembles a rabbit. The lure moves around the track on an electric rail. Dog racing developed from *coursing*, an ancient sport in which two dogs chased a live rabbit over an open field. A mechanical rabbit is also an effective lure because greyhounds chase by sight rather than by scent.

Most dog-racing tracks are 1/4 mile (0.4 kilometre) in diameter. Eight greyhounds compete over a distance of 7/16, 3/8 or 5/16 of a mile (0.7, 0.6 or 0.6 kilometre). Champion greyhounds run faster than 40 miles (64 kilometres) per hour.

Before each race, the greyhounds are put into individual stalls in a starting box. The lure is then started around the track. When the lure is opposite the starting box, the doors of the stalls are opened, and the dogs are released. During the race, the lure is kept several yards ahead of the leading dog. The lure is moved out of sight of the dogs after they cross the finish line, and they stop running.

Dog racing is a popular sport in parts of the United States and several other countries. Fans bet on the grey-hounds through the pari-mutuel system. This system is also used in horse-racing (see HORSE RACING [Betting]. In the United States, bets on dog races total more than \$1 billion yearly. George D. Johnson, Jr. [*The World Book Encyclopedia D* Volume 5. Chicago: World Book, Inc.]

To complement a typological orientation to agnation with a topological one, it is necessary to rework oppositions as parameters, and use two or more of these parameters to define a semantic region. This kind of space is outlined in Figure 11 below, using parameters derived from the systemic oppositions in Table 3 and Figure 10 above. Once the region is established, genres such as the biographical recount in text 8 can be positioned appropriately between the personal and historical recount genres. Similarly, the region can be used to model mixed instantiations like text 9 as straddling the entry focused to activity focused parameter, towards the generic participant end of the scale. Topological description of this kind complements through fuzziness the categorical agnation normally associated with system networks and paradigms, and in our education work has proved especially useful in curriculum design (Martin in press).

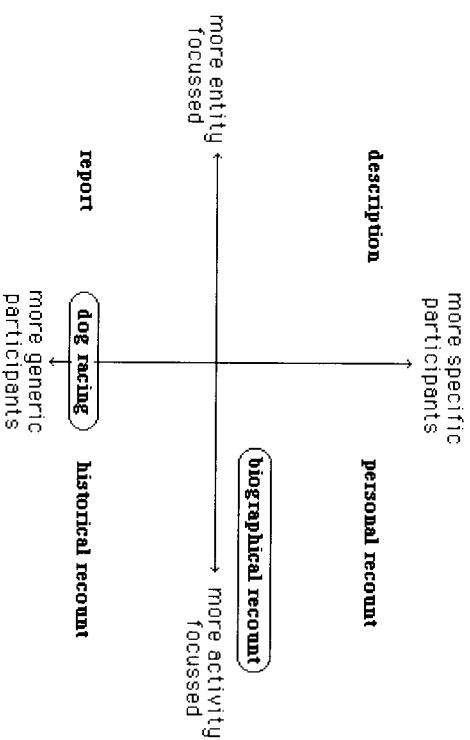


Figure 11. *Genre topology — gradient semantic space*

For further discussion of genre agnation see Christie and Martin (1997), genres in science industry, the print media, primary and secondary school science, secondary school history and English), Eggin and Slade (1997; on conversation), Rose et al. (1992; on procedural genres), Iedema et al. (1994; on media genres), Iedema (1995; on administrative genres), Rothery (1994) and Martin (1997b; on narratives), Ventola (1987; on service encounters).

6. A note on genesis and ideology

Limitations of space preclude a satisfactory discussion of genesis (change) and ideology (power) in relation to genre. In our early work I drew on our interest in synoptic and dynamic perspectives on instantiation, which we had developed in connection with our work on exchange and genre structure — where we were exploring the limitations⁵ of system/structure realisation cycles in relation to the unfolding of discourse as dialogue and as social process (Martin 1985a, 1992; Ventola 1984, 1987, 1989). Our work on dynamic modelling was pursued in a computational context by colleagues concerned with explicitness in text generation (Bateman 1990; Mathiessen and Bateman 1991; O'Donnell 1990; Ravelli 1988, 1995). Martin (1986, delivered 1984; see also Martin 1985b, 1992) suggests establishing a plane of ideology at a further level of abstraction underlying genre. From a synoptic perspective, ideology might then be conceived as the system of coding orientations (after Bernstein) that position social subjects in a culture: a complementary dynamic perspective was suggested to deal with texts explicitly contesting power, where social change was implicated in the resolution of tensions.

Our concern with ideology was in part inspired by our interest in the critical linguistics of the East Anglia school (Fowler et al. 1979; Fowler 1987) and also by Cate Poynton and Anne Thwaite's work on gender relations (Poynton 1985/1989). This interest, alongside our work on genre, opened up some fruitful dialogue with critical theorists, especially those influenced by Bakhtin (Christie 1991; Christie et al. 1991). Questions of meaning, change and power were the focus point for two discussion groups in Sydney in the late 80s, one more theoretically oriented (the Newtown Semiotic Circle — initially comprising Cranny-Francis, Kress, Martin, Muecke, Nesbit, Thibault, Threadgold and van Leeuwen) and one more educationally oriented (LERN, the Literacy and Education Research Network — initially comprising Callaghan, Cope, Kalantzis, Knapp, Kress, Macken, Martin, Noble, Rothery and Stade). From these discussions the distinctive Australian fields of social semiotics (e.g., Hodge and Kress 1988; the journal *Social Semiotics*, currently edited by David Birch) and genre-based literacy pedagogy (e.g., Cope and Kalantzis 1993) were born.

By the 90s Halliday and Mathiessen (Halliday 1993; Halliday and Mathiessen in press) had developed a more sophisticated perspective on semiotic change than we had access to in our earlier work. For relatively short time frames such as that involved in the unfolding of a text, they suggest the term

logogenesis⁶ (Mathiessen mimeo); for the longer time frame of the development of language in the individual, they use the term ontogenesis (Painter 1984); and for maximum time depth, phylogenesis (as in Halliday's reading of the history of scientific English; Halliday and Martin 1993). This framework is summarised in Table 4.

Table 4. *Framing semiotic change*

logogenesis	"instantiation of the text/process"	<i>unfolding</i>
ontogenesis	"development of the individual"	<i>growth</i>
phylogenesis	"expansion of the culture"	<i>evolution</i>

In a model of this kind, phylogenesis provides the environment for ontogenesis which in turn provides the environment for logogenesis; in other words, the stage a culture has reached in its evolution provides the social context for the linguistic development of the individual, and the stage this development has reached in the individual provides resources for the instantiation of unfolding texts. Conversely, logogenesis provides the material (i.e., semiotic goods) for ontogenesis, which in turn provides the material for phylogenesis; in other words, texts provide the means through which individuals interact to learn the system, and it is through the heteroglossic aggregation of individual (always already social) systems that the semiotic trajectory of a culture evolves. Language change in this model is read in terms of an expanding meaning potential, a key feature of semiotic systems as they adapt to new discursive and non-discursive (physical and biological) environments.

Semogenesis: kinds of change

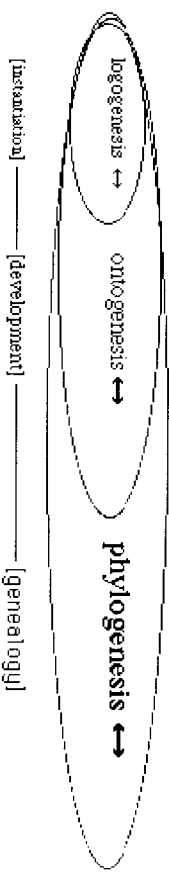


Figure 12. *Time frames and semogenesis*

Read from the perspective of critical theory, phylogenesis might be glossed in terms of a concern with the evolution of discourse formations (as explored in Fairclough 1995), ontogenesis with the development of social subjectivities (e.g., Walkerdine and Lucey 1989) and logogenesis with the de/naturalisation of

reading positions (e.g., Cranny-Francis 1996). Glossing with respect to Bernstein (1996), phylogenesis is concerned with changes in a culture's reservoir of meanings, ontogenesis with the development of individual repertoires (or coding orientations — Hasan 1990); logogenesis is concerned with what in SFL is referred to as the instantiation of system in text (or process if a more dynamic perspective is preferred).

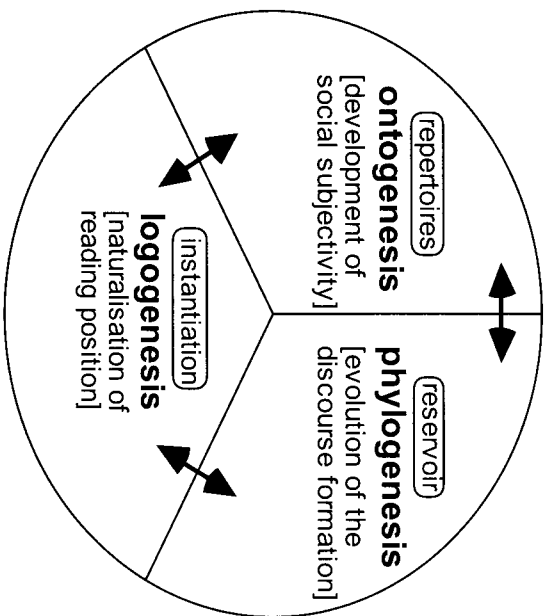


Figure 13. *Semogenesis in relation to critical theory*

Halliday (1994) and Matthiessen (1995) use the term projection to refer to the meaning whereby mental and verbal processes launch metaphenomena (ideas and locutions), anchoring them in time and attributing them. So if we say *Bakhtin argued that creativity depends on mastery of the genre*, then the projecting clause *Bakhtin argued* projects the locution *that creativity depends on mastery of the genre* through the verbal process *argue*, places the locuting in the past (*argued*) with respect to *if we say*, and sources the locution to Bakhtin. The projecting clause in other words provides a frame for interpreting its projection. By analogy, we might argue that genesis projects language, register and genre by framing valeur with respect to the unfolding of a text, with respect to interlocutors' subjectivities and with respect to the meanings at risk in the relevant discourse formations. Along these lines, configuring language, register and genre as system

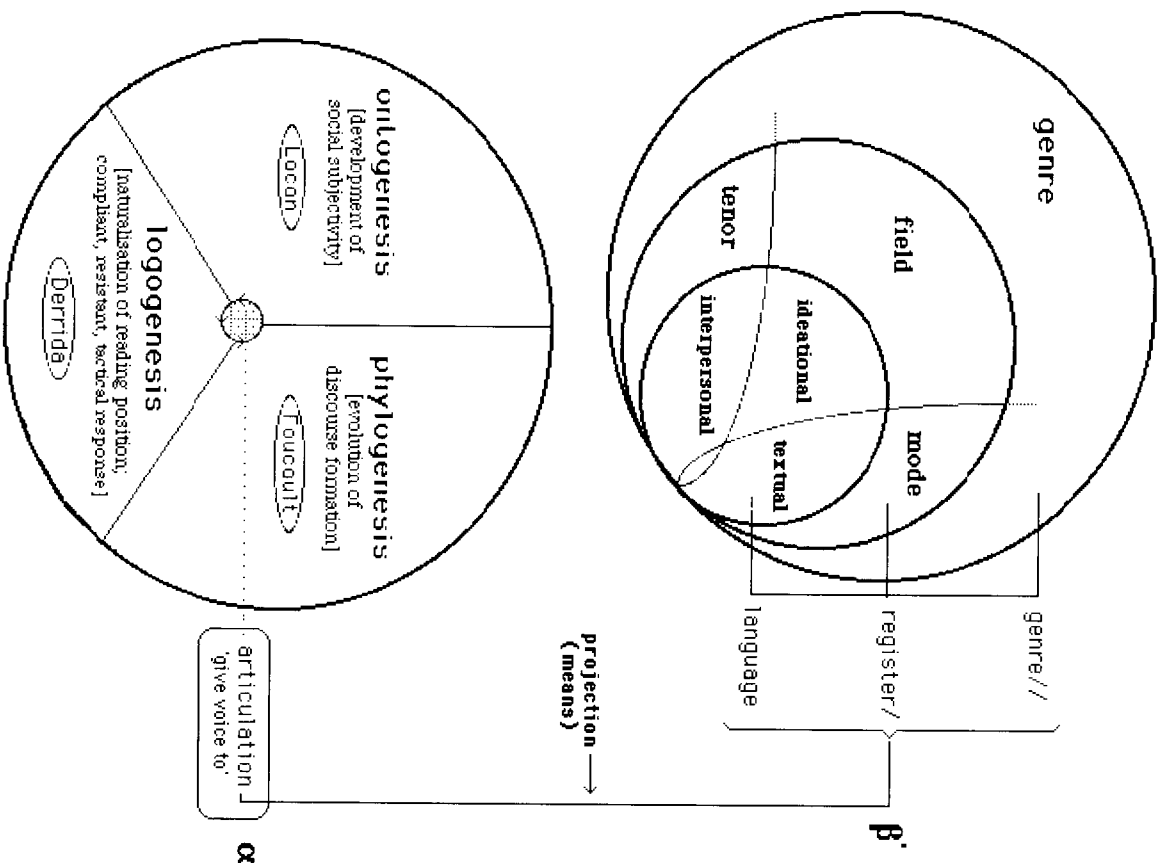


Figure 14. *Language, register and genre as the projection of their semohistory — across time frames*

amounts to mapping the reservoir of meanings that are immanent as a result of the meanings that have been or could have been made in the past and are still relevant. Of these meanings, repertoires are distributed across subjects according to their socialisation. And of these meanings, arrays of choices are negotiated through unfolding text. This notion of time giving value to meaning is outlined in Fig. 14. To this diagram I have appended the names of the French "masters" who have inspired a great deal of the more relevant critical analysis: logogenesis (Derrida), ontogenesis (Lacan) and phylogenesis (Foucault). Halliday's (1985/1994) α ' β notation for projecting clause complexes has been borrowed to represent one of the senses in which history (i.e., semogenesis) gives meaning to synchronic (albeit always changing) semiosis.

One of our main concerns in pursuing questions of language and ideology has been to open up dialogue with theorists who are trained to read texts (and so can interpret meaning beyond the clause) and who are trained to read critically (and so can deconstruct). Giblett and O'Carroll (1990), Christie (1991) and Christie et al. (1991) document some very productive negotiations. In our meanings we have however trodden on several toes. My current reckoning is that looking at meaning from the perspective of social change, as Figure 14 inclines the analyst to do, might further facilitate dialogue — perhaps in relation to Critical Discourse Analysis (Fairclough 1995) as it develops around the world. But I have been wrong before; extravagant linguistics is not always the company that critical theorists choose to keep.

7. Dialogism

Hasan (1995:283) suggests that clarification of my position on a stratified model of context may help to improve the usefulness of genre-based work — with respect to both theory and application. Perhaps I have achieved some small measure of that here. What concerns me more is to begin to open up a metatheoretical space in which different registers of SFL can be considered and compared, though I am probably too close to this work on context to accomplish for register and genre theory what I attempted for case relations in Martin (1996b). In my experience critique and repartee is not the most effective way of promoting understanding in a metatheoretical region of this kind, where what is required is a clear exposition of alternatives, and some sense of which kinds of consumers might find which alternatives attractive. My intention from the beginning was to

add theoretical space to SFL, so that the theory could be a more effective ideologically committed form of social action than it was, without compromising what had already been achieved. In terms of Hasan's own work one might read our model as asking how it was that her generic structure potentials were related to each other in the culture; and in answering that question we didn't want to be limited to any one metafunction, but tried to explore where genre agnation might lead us if Halliday's prism of functional diversity were set aside, for a moment, in one corner of the model of life, the universe and everything we were trying to build.

I think in retrospect that complementing field, mode and tenor analysis with a layer of genre was a resource expanding move of just this kind. It has certainly been proved consumable, so at the very least it was good to eat! Nourishing too, since it gave us a handle on context comparable in organising power to the clause in grammar or the syllable in phonology, and opened up dialogue across disciplines (e.g., linguistics, education and critical theory; Martin and Veel 1998) in a way register analysis alone had not been able to achieve. According to chaos theory we can look back down this crooked path of progress and make sense of what has happened — tell a grand narrative or two; whereas looking forward we are next to blind. Perhaps the idea that we don't know where we're going should give us pause, and offer some modicum of comfort to our critics... but I don't think it will.

Notes

1. A similar move had been made by Barthes (1967), and developed in his work on mythologies (1973), as Chris Neshitt later pointed out to me.
2. I have never found the argument that the meaning of *roné* has to be interpreted with respect to mood compelling, since it is always the case that the meaning of a choice on one stratum has to be read with respect to choices it is realising; e.g. the meaning of interrogative depends in part on whether it is realising a command or a question, just as the meaning of tone 2 depends on whether it is realising declarative or interrogative.
3. In Martin (1984b:25), writing for an audience of student teachers, I suggested a correspondence between Malinowski's context of culture and genre, and between his context of situation and register; this correlation was taken up in a number of educational materials (e.g. Derewianka 1990). It is important to distinguish this explanatory gloss from Halliday's practice of using context of culture to refer to field, mode and tenor as system and context of situation to their instantiation as a specific context (see Mathiessen 1993 for discussion).
4. The term agnation is introduced by Gleason (1965) to refer to affine interrelations among grammatical structures, which at the time were captured in formal linguistics through mutation rules (i.e. transformations).

5. I should perhaps comment in passing that this work confirmed our reservations about the inadequacies of structural formulas such as those used by Berry for the exchange, or Hasan for genre: if the generative power of a system/structure cycle was turning out to be inadequate, then structural formula were certain to fail.
6. Along this dimension Halliday and Mathhessen are refocusing a long standing SFL interest in the dynamics of text as process (Martin 1985a; Bateman 1989).
7. These materials (and Jedema et al., Rose et al. and Rothery below) can be ordered from the State Equity Center, Cnr Bridge and Swanson Streets, Erskineville, NSW 2043, Australia.
8. Available Common Ground Publishing, 6A Nelson St, Annandale NSW 2038.
9. This journal in functional linguistics, semiotics and critical theory is published by Certfax.

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