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Special Issue

Editors

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This special issue compiles papers from the 48th Systemic Functional Congress (ISFC48 organised in March 2023 by the Systemic Functional Linguistics Association of Tunisia (SYFLAT) and the Laboratory of Approaches to Discourse (LAD-LR13ES15), under the auspices of the Faculty of Letters and Humanities at the University of Sfax. This special issue, which explores the theme of power and empowerment in relation to language and systemic functional theory, is divided into two volumes. The contributions in the first volume provide some reflections on SFL notions, which can empower both the theoretical apparatus and its application to different types of discourse. The papers in this second volume showcase how SFL language descriptions can empower pedagogical practices.

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A picture less 1000 words: Mapping feeling

Jim R. Martin

Abstract

This paper looks critically at a selection of infographics involved in the construal of knowledge about APPRAISAL in Systemic Functional Linguistics (SFL). It draws on recent work by Martin & Unsworth (2024) on infographics in secondary school science to explore the complementarity of verbiage and image in appraisal infographics and accompanying text. The discussion focuses in particular on the use of paradigms to present descriptions of affect and diagrams implicating semogenic processes (ontogenetic and phylogenetic). The problem of including too much or too little information in infographics opens up the challenge of *developing theory and description in relation to SFL's cline of instantiation and* ***the syndromes of coupling and commitment that effectively distribute meaning within and across modalities***.

Keywords

APPRAISAL; infographics; coupling, commitment; convergence; multimodality

1. Infographics

Martin & Unsworth (2024) draw attention to the complexity of infographics in science education, focusing on degrees of technicality and abstraction – including the affordances of infographics as far as synoptic aggregations of uncommon sense meanings are concerned. These 'eyefuls', as they note, may be accompanied or not by co-text which supports their interpretation to varying degrees. To date, their modelling has not been applied to the production of knowledge. In this paper, I will open up this application of their work by focussing on key infographics in Martin & White's (2005) description of evaluation in English (their APPRAISAL framework). A critical examination of selected infographics and related accompanying text highlights the essential complementarity of verbiage and image in knowledge production. As this paper will show, this complementarity has the potential to foster both insight and misunderstanding – especially when a description such as APPRAISAL is taken up, applied, critiqued and revised across a range of disciplines, some far removed from the Systemic Functional Linguistic (SFL) theory informing its original genesis.

2. Macro-groups

Inspired by work by Hiippala et al. (2020), Hiippala & Orekhova (2018), Martin & Unsworth (2024) distinguish between micro-groups (imagic and/or verbal segments in a 'gestalt' relation to one another) and macro-groups (configurations of micro-groups). Their model of macro-group resources is outlined in Figure 1 (Martin & Unsworth 2024, 106); for system network conventions see Appendix.[1] The DESIGN system allows for groups organised in various ways:

i. in line (vertical and/or horizontal or something in between)[2]
and/or[3]
ii. as a branching tree
and/or
iii. as a network (with nodes potentially connected to two or more other nodes)
and/or
iv. as a circle (including various subtypes)
and/or
v. as a picture.

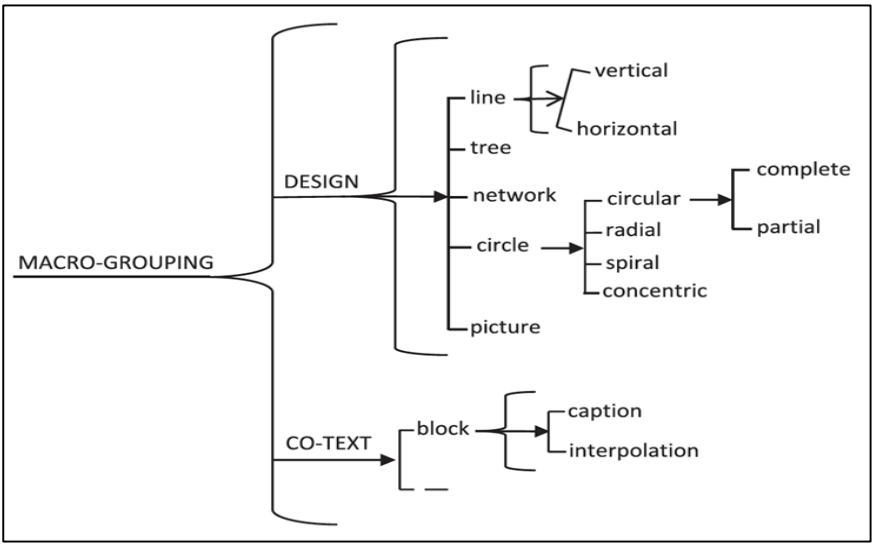
The CO-TEXT system allows text blocks to be included as captions and/or as interpolated parts of macro-groups. Basic DESIGN options are illustrated in Figure 2 (following their introduction as i., ii., iii., iv. and v. above).

[1] Comparable groupings are explored in Martinec & van Leeuwen's (2009) work on non-linear design.

[2] The square bracket opposing the [vertical] and [horizontal] options in Figure 1 is slanted to indicate that the system is a cline (i.e., lines can be more or less vertical or horizontal, thus diagonal).

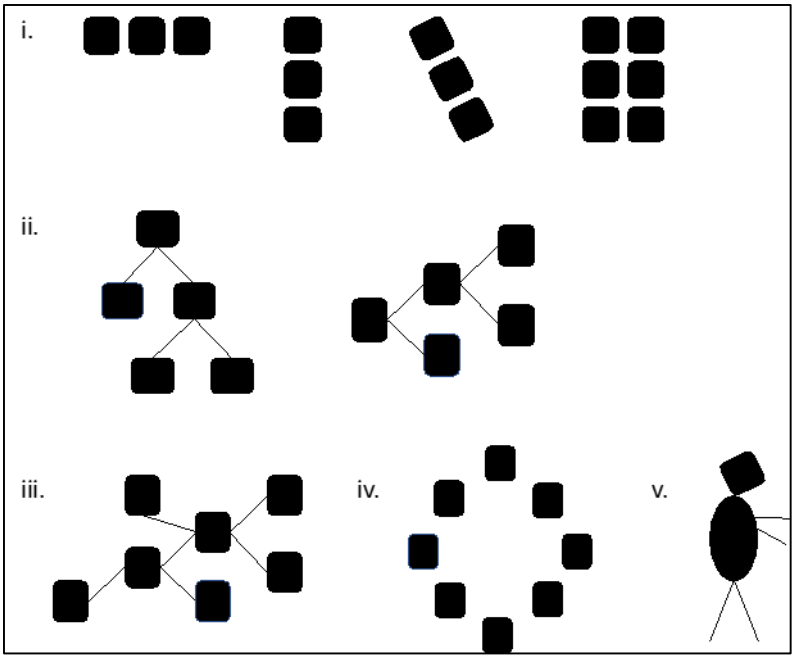
[3] The 'and/or' relation is represented by the combination of a brace with a square bracket in Figure 1 (e.g., the 'and/or' brace + arrow plus square bracket organising DESIGN options).

Figure 1: Macro-groups



(Source: ***Martin & Unsworth 2024, 106***)

Figure 2: Types of macro-group



Of particular interest for this paper are line (including the 'grid' formed by choosing both vertical and horizontal lines) and network (i.e., multiply connected nodes) options. These macro-groups are regularly deployed for the production and re-production of knowledge in SFL, where they are used among other things to formalise semiotic 'valeur' as paradigms and system networks respectively (Martin et al. 2013) and design diagrams of various kinds. To take a simple example, English demonstrative determiners are presented as a system network in Figure 3. The braces therein represent 'and' relationships and the square brackets 'or' ones. So the network describes this set of determiners as [singular] or [plural] and as [near] or [far]; and the left-facing braces (i.e., 'gates') bring together the features realised as ***this, that, these*** and ***those***. Figure 4 uses a table (organised as a grid) rather than a system network to formalise these relations, with vertical columns labelled for number and horizontal rows labelled for proximity; the determiners realising these options are positioned in their respective cells.

Figure 3: A system network for English demonstrative determiners

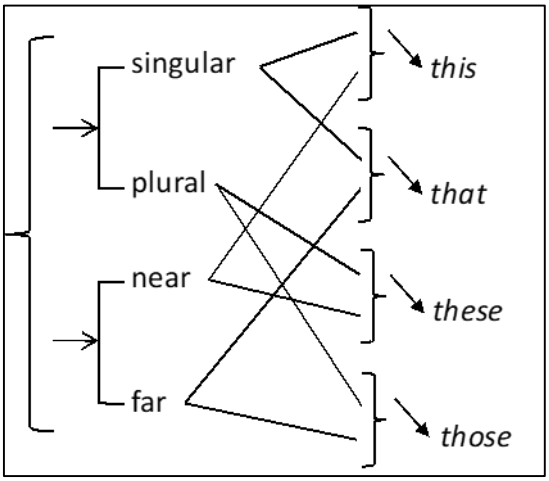


Figure 4: A paradigm for English demonstrative determiners

	[singular]	[plural]
[near]	***this***	***these***
[far]	***that***	***those***

A paradigm is arguably a more easily digestible eyeful than a system network – as long as a paradigm is restricted to two systems of valeur. However, once multiple dimensions of contrast are introduced (e.g., mood, person, number and tense for Romance verbal groups) the basic bi-dimensionality of a paradigm makes it an unwieldy tool. Adding a third dimension is possible (e.g., the front cover of Halliday & Matthiessen 2004); but the intersections among three dimensions are awkward to label and draw; and if they were labelled and drawn, they would be very difficult to view.[4] System networks on the other hand have no such limitation, since systems can easily be added to cross-classify phenomena with respect to any number of dimensions (cf. the nominal group and verbal group systems for English, Spanish and Chinese in Martin et al. 2023). In spite of this challenge Martin & White (2005) relied on paradigms to present its description of attitude relations – believing they would be more accessible to a non-SFL trained readership. Aspects of the cost of this decision are explored in Section 3 below.

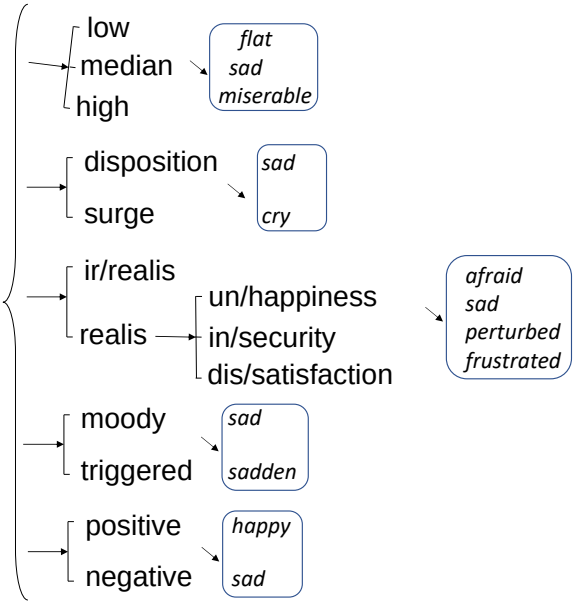
3. Modelling affect

Martin & White (2005) categorise emotion along five dimensions. Their model describes AFFECT as relatively low, median or high (e.g., ***flat/sad/miserable***), as a disposition or surge of emotion (e.g., ***sad/cry***), as irrealis (i.e., fear/desire) or realis

[4] For this reason viewers are usually expected to imagine intersections along a third plane (viz the implicitness of the stratification and metafunction dimensions along the instantiation cline on the front cover of Halliday & Matthiessen 2004).

happiness, security or satisfaction (e.g., ***afraid/sad/perturbed/frustrated***), as moody or triggered[5] (e.g., ***sad/sadden***) and as positive or negative (e.g., ***happy/sad***). This description is formalised as a system network in Figure 5 alongside the exemplary realisations introduced in parentheses above. As the network shows, cross-classification is not an issue for system networks; the brace makes room for however many dimensions of analysis are proposed.

Figure 5: Affect systems (and some exemplary realisations)



As noted above however, the basic two-dimensional nature of paradigms severely compromises the presentation of multi-dimensional analyses. Martin & White (2005) did not propose a paradigm for all five systems in Figure 5. They did however use a paradigm to present their descriptions of irrealis fear/desire, and realis happiness, security and satisfaction one by one. Their paradigm for happiness is presented as Figure 6, following the formatting published in ***The Language of Evaluation*** (2005, 49;

[5] This opposition was referred to as [mood: 'in me'[and [directed: 'at you'] in Martin & White 2005; I am updating the terminology here to clarify the discussion.

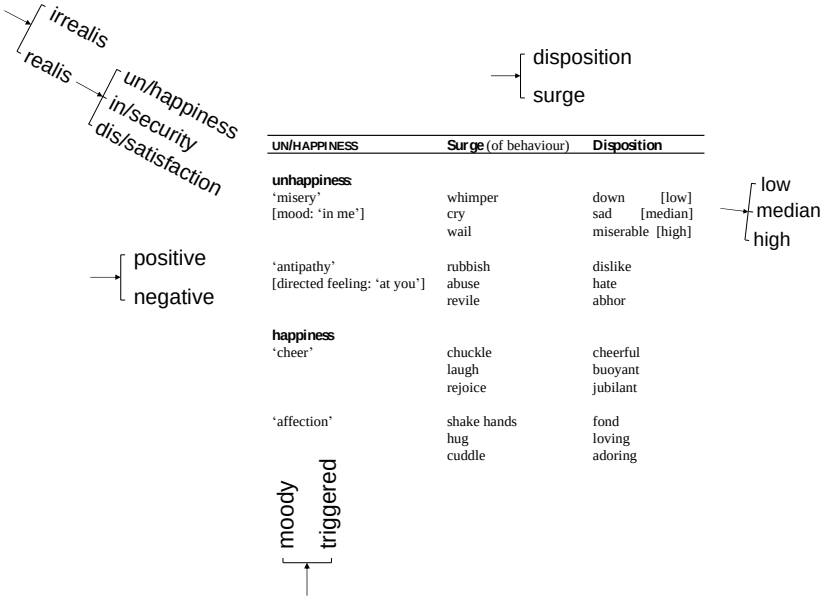
Table 2.2). With respect to the systems in Figure 5, the [low/median/high] cline is labelled once (for ***down/sad/miserable*** realisations); the [surge/disposition] system is organised as columns 2 and 3 and labelled as such in bold; the relevant selection from the affect type system (i.e., (happiness]) annotates column 1 as a heading in bold small caps (**UN/HAPPINESS**); the [moody/triggered] system is organised as rows, and labelled once for **unhappiness** in square brackets (as [mood: 'in me'] and [directed feeling: 'at you']); and the [positive/negative] system is organised by rows, labelled **unhappiness** and **happiness** in bold. As this account reveals, formatting is doing a lot of work to distinguish oppositions. In addition the [low/median/high] grading system is left implicit for 7 of the 8 sets of examples for which it is relevant; and the [moody/triggered] opposition is left implicit for 4 of 8 sets of examples. A rough guide to the relation between the systems in Figure 5 and the formatting and organisation of rows and columns in Figure 6 is presented as Figure 7.

Figure 6: Paradigm for happiness

UN/HAPPINESS	**Surge** (of behaviour)	**Disposition**
unhappiness:		
'misery'	whimper	down [low]
[mood: 'in me']	cry	sad [median]
	wail	miserable [high]
'antipathy'	rubbish	dislike
[directed feeling: 'at you']	abuse	hate
	revile	abhor
happiness		
'cheer'	chuckle	cheerful
	laugh	buoyant
	rejoice	jubilant
'affection'	shake hands	fond
	hug	loving
	cuddle	adoring

(Source: ***Martin & White 2005, xx***)

Figure 7: Paradigm for happiness (in relation to AFFECT systems)



UN/HAPPINESS	**Surge** (of behaviour)	**Disposition**
unhappiness		
'misery'	whimper	down [low]
[mood: 'in me']	cry	sad [median]
	wail	miserable [high]
'antipathy'	rubbish	dislike
[directed feeling: 'at you']	abuse	hate
	revile	abhor
happiness		
'cheer'	chuckle	cheerful
	laugh	buoyant
	rejoice	jubilant
'affection'	shake hands	fond
	hug	loving
	cuddle	adoring

The paradigm in Figure 6 also includes some non-technical cover terms, in single quotes – i.e. 'misery' for [negative/happiness/moody/surge or disposition], 'antipathy' for [negative/happiness/triggered/surge or disposition], 'cheer' for [positive/happiness/moody/surge or disposition], and 'affection' for [positive/happiness/triggered/surge or disposition]. These were intended to help readers find their way around the paradigm and possibly function as a kind of short-hand for text analysis. Unfortunately, this seems to have made it even harder for some readers to distinguish categories from example realisations (e.g., the **happiness** category realised as ***chuckle, laugh, rejoice, shake hands, hug, cuddle, cheerful, buoyant, jubilant, fond, loving, adoring***) and to distinguish technical terms (e.g., surge/disposition) from non-technical short-hand (e.g. 'misery', 'cheer'). These non-technical shorthand cover terms are summarised in Figure 8. They are not, formally speaking, part of the description; rather, as noted above, they were intended as scaffolding for interpreting the paradigms. For [in/security] this has led to confusion, as the cover term 'surprise'

has been mistaken for both a technical term and for a canonical lexical realisation (for discussion see Martin 2017, 2020a).

Figure 8: Non-technical cover terms for attitude

		[positive]	[negative]
[irrealis]		'desire'	'fear'
[realis: happiness]	[moody]	'cheer'	'misery'
	[triggered]	'affection'	'antipathy'
[realis: security]	[moody]	'confidence'	'disquiet'
	[triggered]	'trust'	'surprise'
[realis: satisfaction]	[moody]	'interest'	'ennui'
	[triggered]	'pleasure'	'displeasure'

(Source: ***Martin & White 2005, xxx***)

In retrospect it probably would have been wise to complement the affect paradigms with the system network of oppositions presented above as Figure 5. In addition, the paradigms might well have been clarified by formatting semantic features in bold, formatting example realisations in italics, making the grading more explicit and removing the orienting cover terms in Figure 8. A paradigm for un/happiness, revised along these lines, is presented as Figure 9. This is still a lot of information to include in a single infographic and a revised presentation would be well advised to include some detailed accompanying text steering viewers through each attitude paradigm.

Figure 9: Revised paradigm for un/happiness

		surge (of behaviour)	**disposition**	
negative	**unhappiness**:			
	[**moody**: 'in me']	*whimper* *cry* *wail*	*down* *sad* *miserable*	**[low]** ↑↓ **[high]**
	[**triggered**: 'by you']	*rubbish* *abuse* *revile*	*dislike* *hate* *abhor*	↑↓
positive	**happiness**			
	[**moody**: 'in me']	*chuckle* *laugh* *rejoice*	*cheerful* *buoyant* *jubilant*	↑↓
	[**triggered**: 'by you']	*shake hands* *hug* *cuddle*	*fond* *loving* *adoring*	↑↓

In doing so, particular emphasis would need to be placed on the distinction between discourse semantic attitude categories and the exemplary lexical items realising them. Martin & White (2005, 51) did emphasise this point by including a long list of lexical items realising unhappiness. In retrospect they would have been well-advised to do this for insecurity as well to help allay the misunderstandings addressed in Martin (2017, 2020a). Emphasis could then have been placed on the range of lexical items realising 'perturbance' (to re-name the problematic cover term 'surprise' in Martin & White, 2005); e.g., ***disturbed, startled, shattered, shocked, unsettled, stunned, astounded, shaken, rattled, shattered, thrown, taken aback, bowled over, caught unawares, caught napping, caught*** *off one's guard, jolted, dazed, surprised.*

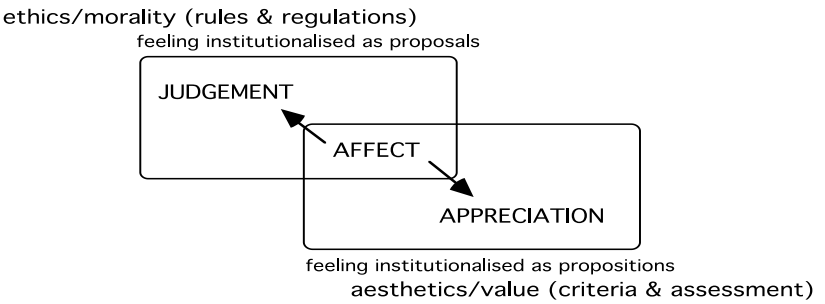
Summing up, more respect could have been shown to the limitations of paradigms – by accompanying attitude paradigms with

alternative infographics (especially system networks) and scaffolding them more explicitly with accompanying text.

4. Technicalising attitude

As part of their modelling Martin & White (2005, 45) suggest a genetic perspective on types of feeling, with JUDGEMENT positioned as an 'institutionalisation' of AFFECT as norms for behaviour and APPRECIATION as an institutionalisation of AFFECT as values of phenomena (the socialisation of infants into family life in other words). The diagram they use to aggregate these suggestions is presented as Figure 10. Its macro-group involves 7 text blocks – i. ethics/morality (rules & regulations), ii. feeling institutionalised as proposals, iii. JUDGEMENT, iv. AFFECT, v. APPRECIATION, vi. feeling institutionalised as propositions, vii. aesthetics/value (criteria & assessment) – organised along a diagonal line (top left to bottom right). Inside there are two micro-groups ('JUDGEMENT/AFFECT' and 'AFFECT/APPRECIATION') which are boxed together and connected by arrows. And there are two further micro-groups – 'ethics/morality (rules & regulations)/feeling institutionalised as proposals' and 'feeling institutionalised as propositions/aesthetics/value (criteria & assessment)' – vertically aligned with one another. In relation to these pairs of segments, Martin & White (2005, 45) comment that some judgements "get formalised as rules and regulations administered by church and state" and some appreciations "get formalised in systems of awards (prices, grades, grants, prizes etc.)".

Figure 10: Institutionalisations of AFFECT as JUDGEMENT and APPRECIATION



(Source: ***Martin & White 2005, 45; Figure 2.1***)

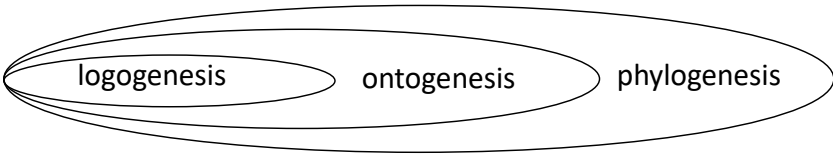
As the co-text indicates Figure 10 is aggregating suggestions about both ontogenesis (i.e., "taming the wild will and voracious tastes" of children) and phylogenesis (i.e., the formalisation of judgement as regulations and appreciation as scales of value). This was clarified in part in later work by Martin & Zappavigna (2016b) and Zappavigna & Martin (2018, 172) in research on diversionary justice, New South Wales Youth Justice Conferencing in particular. As part of conferences, Young Persons have to admit their offence – for example stealing. As they explain, strictly speaking there is no attitude inscribed in such admissions and suggest the term 'axi-tech' for such axiologically charged technicality:

> Admitting to an offence is a technical activity in legal discourse (i.e., pleading guilty to breaking a rule of law); the function of legal discourse after all is to ideationalize the arbitration of behaviour that might otherwise explode as feeling driven contestation. The critical distinction here is between the technicality of the legal system and its categorization and definition of offences (such as murder, manslaughter, rape, assault, battery, burglary, arson vandalism, embezzlement, forgery, libel, etc.) and everyday attitudes towards bad behaviour (as deceitful, deceptive, manipulative, unfair, mean, cruel, rude, greedy, selfish, and so on). The criminal terms certainly invoke negative judgements, and as axiologically charged technicality ('axi-tech' we might say) could be coded as such. But they are not direct expressions of feeling per se. (Martin & Zappavigna 2016a, 110)

Drawing on Halliday & Matthiessen (1999, 18) in retrospect, it might have been helpful to include a diagram organised along the lines of Figure 11 to help clarify the different scales of genesis involved. The basic co-tangential circles in a macro-group of this kind could be supplemented by text blocks annotating logogenesis as 'instantiation in text', ontogenesis as 'development in an individual' and phylogenesis as 'evolution of a culture' – perhaps with additional text blocks and arrows addressing the co-tangential circle motif and specifying phylogenesis as the environment for ontogenesis (in turn the environment for logogenesis) and logogenesis as the material for ontogenesis (in turn the material for

phylogenesis). However, extended (cf. Halliday & Matthiesseen 1999, 17-18), the infographic would need to be carefully scaffolded with accompanying text dealing with these complementary perspectives on semohistory and their relevance to the interpretation of the development and evolution of attitude in Figure 10.

Figure 11: Types of language change



Summing up, the challenge being illustrated here is not so much that of an infographic trying to do too much work (as with the over-loaded attitude paradigms discussed in Section 3) but rather infographics that are under-specified with respect to the information they are aggregating. In both cases some kind of balance needs to be struck – in relation to inclusion and arrangement of verbal and imagic segments in infographics and their elaboration in accompanying text. Hindsight and the misunderstandings of readers make us wise, in retrospect. But we need to get wiser in prospect too. This means developing our understanding of the complementarity of verbiage and image within infographics and between infographics and accompanying text well beyond anything we have to draw on at present – on a field specific basis in relation to the knowledge we are attempting to construe. Martin & Unsworth (2024) includes some suggestive discussion in relation to secondary school science infographics which could be taken as point of departure for such research.

5. Iconising attitude

As noted for Figure 10 and its accompanying text in Martin & White (2005), ***The Language of Evaluation*** included some preliminary gestures towards thinking about attitude and language change. Virtually all of the detailed analysis in the book in fact dealt with logogenesis – i.e., the analysis of evaluation as it unfolds in a selection of focus texts. In Chapter 2, this analysis was set out in tables like that in Figure 12 (organised as a grid), with columns for

i. appraising items, ii. appraiser, iii affect, iv. judgement, v. appreciation and vi. appraised and rows for the text segments inscribing attitude. This infographic was designed to encourage analysts to consider attitude in relation to its ideational source (i.e., whose feeling) and its ideational trigger or target (i.e., what is being appraised).

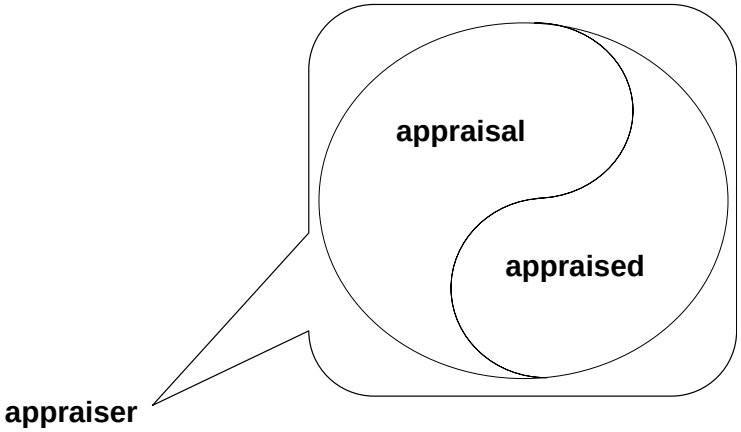
Figure 12: Analysing attitude

Appraising items	Appraiser	Affect	Judgement	Apprec'tion	Appraised
∞ … *not to … kiss*	Dad	neg aff.			Bub
my feelings can't …	Dad	(various)			Bub
my heart hurt	Dad	misery			Bub crying
wanting	Dad	desire			come in
wanting	Dad	desire			hold Bub
I couldn't take it	Dad	displ.			Bub crying
I'm sorry	Dad	misery	−prop		visiting
kisses	parents	∞affect			
glad	Dad	cheer			Bub settled
wish	Dad	desire			explain
especially wish	Dad	desire			explain …
scares	Dad	disquiet			how far to go
wouldn't want	Dad	neg des.			life
have to suffer	Dad and Bub	disquiet			settling

(Source: ***Martin & White 2005, 81***)

In retrospect the tables and their accompanying text were not explicit enough about discouraging 'sentiment' analyses that focuses on numbers and types of attitude without taking appraiser and appraised into account. An infographic such as that in Figure 13 might have helped encourage a full analysis, bringing appraisal together the relevant ideation in the interpretation of texts. Therein a yin/yang circle is used to reinforce the coupling of appraisal with what is appraised (after Hood 2010; Szenes 2017) and a call-out is deployed to couple that coupling with its appraiser. Once again, in relation to implicitness, two infographics (i.e., both Figures 12 and 13) might have been better than one.

Figure 13: Coupling appraisal with appraiser and appraised



More recently Carr (2023) has added another dimension to the semogenesis of attitude – showing that alongside technicalised attitude (axitech) we need to bring iconised attitude into the picture. In doing so she is drawing on a tradition of work on iconisation pioneered by Stenglin (see especially her 2022 survey article) and Tann (2013) and extended in Zappavigna & Martin (2018). As introduced in Martin (2010) iconisation is a semogenic process that foregrounds interpersonal meaning and backgrounds ideational meaning. This process is easy to recognise in idioms (Chang 2004); we know for example that ***stabbing someone in the back*** or ***losing one's touch*** are not meant to be taken literally, but are rather to be interpreted attitudinally as judging someone's behaviour. Stenglin (2008) documents this process for the 2000 Olympic Games in Sydney, focussing on the torch relay and Olympic flame. The focus there is on what she calls bonding icons (bondicons), around which people rally in communities of shared values – see also Stenglin (2012) on Croata (ties from Croatia), Martin & Stenglin (2007) on a New Zealand museum exhibition promoting reconciliation and Martin & Zappavigna (2013), Zappavigna & Martin (2018) on ceremonial redress in Youth Justice Conferencing. The basic idea here is that iconisation involves an attenuation of ideational meaning as interpersonal meaning is charged – as texts unfold, as people bond and as cultures evolve.

In her work on sex education in secondary school, Carr (2023) demonstrates that iconisation is also relevant to attitude; it is not just ideation that gets iconised. She illustrates her point with respect to the ontogenesis of the meaning of ***respect*** in classroom discourse – which begins as an inscribed attitude but over time gets further charged with a range of feelings (affect, judgement and appreciation) in relation to an ever more weakly classified set of triggers/targets and appraisers. So alongside technicalised attitude (e.g., ***consent*** in Carr's study) we have iconised attitude (***respect***) – i.e., axiologically charged attitude we might refer to as axicons. Well-known examples would include the ***Black lives matter*** slogan inspiring recent protest movements around the world or the familiar ***Liberté, Fraternité, Égalité*** motto of the French republic. Precisely because of their iconisation, axicons are very difficult to categorise in terms of types of attitude. ***Black lives matter*** for example does not simply involve an appreciation of the importance of black people's lives; a judgement about racist behaviour and an indignant affectual reaction are also instilled in the phrase. And over time the triggers and targets of the feelings have become more weakly classified, as the axicon is taken up to rally protests in relation not just to Americans of African heritage, but Indigenous Australians, First Nations Peoples around the world and possibly others. Concomitantly the sourcing of the feelings has broadened, as people from a range of ethnicities, including privileged groups, get involved in the movement. In short what we are looking at here is a process whereby axicons are hyper-charged with feeling at the same time as both appraisers and appraised become more weakly classified. Carr's (2023) consolidating perspective on technicalised and iconised ideation and attitude is outlined in Figure 14.

Figure 14: Carr's (2023) perspective on technicalised/iconised ideation/attitude

	technicalised	iconised
ideation	**technical term**	**bondicon**
	judge, juror, lawyer, trial, verdict…	I can't breathe; Me too
appraisal	**axitech**	**axicon**
	homicide, murder, manslaughter, euthanasia…	Black lives matter; Liberté, Fraternité, Égalité

6. Complementarity

In this paper I have focused on the complementarity of verbiage and image in selected infographics and between these infographics and accompanying verbiage. Martin (2010) suggests that relations of this kind need to be interpreted from the perspective of instantiation – in terms of coupling and commitment. Coupling refers to the systematic co-patterning of meanings as texts unfold (e.g., a type of affect with a specific emoter or trigger). Commitment refers to degrees of explicitness of meaning and its distribution across modalities (i.e., invoked affect in the caption of a picture but inscribed facial expression in the accompanying image). Both concepts are developed for children's picture books in Painter & Martin (2012) and Painter et. al (2013) and for Youth Justice Conferencing in Zappavigna & Martin (2018) and Zappavigna et al. (2008, 2010) Ngo et al. (2022, 21) draw on the picture book work in their modelling of the relation between language and paralanguage. They use a table to aggregate the metafunctionally organised model of coupling referred to by Painter et al. (2013) as convergence (i.e., degrees of coupling and commitment). Thus in Figure 15, degrees of ideational convergence are referred to as concurrence, degrees of interpersonal convergence as resonance and degrees of textual convergence as synchronicity. This is then adapted for language and paralanguage coupling in Ngo et al. (2022). Martin & Rose (2020)

and Martin & Unsworth (2024) draw on these ideas in their discussion of secondary school science infographics in relation to the meanings that are made explicit and those which depend on accompanying verbiage (print, electronic or aural) to make their meanings clear.

Figure 15: Convergence and metafunction

Verbiage	***convergence***	**Image**
ideational	***concurrence***	ideational
interpersonal	***resonance***	interpersonal
textual	***synchronicity***	textual

(Source: ***after Ngo et al. 2022, Table 1.3***)

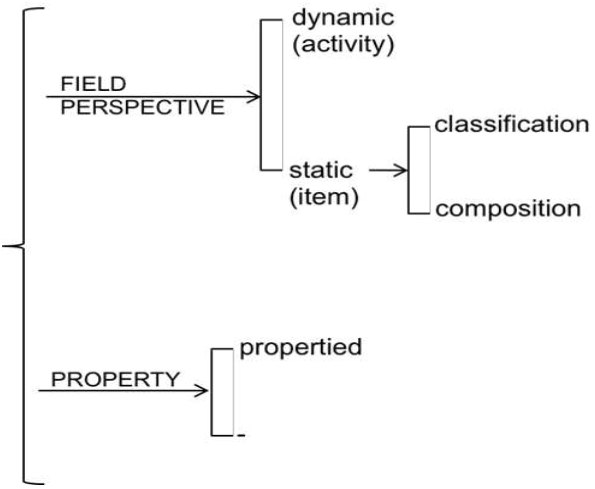
Coupling and commitment are very general notions that can be applied to co-instantiation within a semiotic system (e.g., language or image) or between systems (i.e., intermodal convergence in multimodal discourse analysis or interlingual convergence in translation and interpreting). And to the extent that semiotic systems construe ideational meaning, enact interpersonal meaning and compose textual meaning, convergence can be explored in terms of concurrence, resonance and synchronicity. From the perspective of SFL[6] intramodal, intermodal or interlingual research can only proceed once system networks have been developed for the ideational, interpersonal or textual meaning being explored. To date SFL has developed explicit descriptions of this kind for images (Kress & van Leeuwen 2021; Painter et al. 2013; Martin & Unsworth 2024), paralanguage (Ngo et al. 2022), music and sound (van Leeuwen 1999) and a wide range of languages (for references see

[6] Systemic Functional Semiotics (SFS) we should perhaps say.

Caffarel et al. 2004; Mwinlaaru & Xuan 2016; Martin et. al 2023) – which can be drawn on for explicit analysis of this kind.

As far as the production of knowledge is concerned, beyond these descriptions a general model of field needs to be brought into the picture – so that analysis can be explicit about the knowledge that is being construed. Doran & Martin (2021) introduce a model of this kind, which interprets field as a resource for construing phenomena. Two of its key systems are outlined in Figure 16. The FIELD PERSPECTIVE system distinguishes between construing phenomena dynamically as activity (something happening) or statically as items, with items organised via classification (type/subtype relations) or composition (part/whole relations). The parallel PROPERTY system allows for both activities and items to be propertied with qualities (e.g., speed or quantity). This model is probably sufficiently abstract that it can be used to generalise across the knowledge construed by different semiotic systems (both verbal and non-verbal), even though we of course always need to watch out for the different affordances of the different systems to make sure we are not overgeneralising. Approaching from field allows us to reason systematically about the meanings construing a particular interpretation of the world and how to distribute them more and less convergently within and across modalities.

Figure 16: Basic field systems



(Source: ***Doran & Martin 2021***)

In this paper we looked critically at the knowledge constructed by verbiage and image in infographics designed to aggregate meaning about appraisal – noting, in hindsight, as far as verbiage/image relations are concerned that some macro-groups were being made to do too much work and some too little. In the course of this discussion not enough has been said about the relation of these infographics to accompanying text. From the perspective of textual meaning one thing we need to pay more attention to is the role played by infographics at different points in a text's hierarchy of periodicity (Martin 1992; Martin & Rose 2007). The more information an infographic consolidates, the more likely it is to function successfully as higher level news (a Hyper-New or Macro-New) – since the meanings it aggregates have been specified in detail in preceding text. This suggests that simpler infographics will be more appropriate as knowledge is being developed (the succession of relatively simple system networks used in steps to introduce field in Doran & Martin (2021) are one kind of model).

The infographics in Doran & Martin (2021) can be usefully contrasted with the front cover of Halliday & Matthiessen's ***An Introduction to Functional Grammar*** (2004), a dense infographic dealing with realisation, instantiation, metafunction and rank that takes me a whole semester of teaching to explain to students. This in turn can be usefully contrasted with the front cover of Rose & Martin (2012), which features a picture of a young Indigenous Australian girl writing about her culture on a white board. Convergence with the book it 'introduces' is clearly interpersonal rather than purely ideational here; the picture was selected to resonate with the empowerment message which is the raison d'être of genre-based literacy programs.

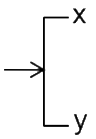
7. Looking ahead

As noted above, hindsight is not enough. We need to get better at organising verbiage and image in our constructions of uncommon sense knowledge. And this depends on developing theory and description giving us a better handle on the distribution of meaning in multimodal texts. As this paper indicates we now have some of the tools we need to develop understandings of this kind (i.e., the explicit SFL informed descriptions noted above). That said, there's a generation or more of work to do developing SFL's cline of

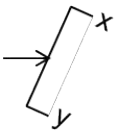
instantiation – to the point where it works more effectively in tandem with the results of work on realisation construed over the past 70 years.

Appendix: system network conventions

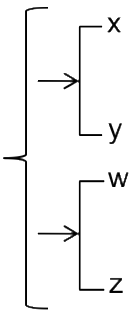
‘or’



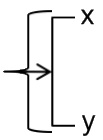
‘cline’



‘and’



‘and/or’



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