ON THE GLOBAL TEXTUAL THEME AND OTHER TEXTUAL HYPERTHEMES

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I. Introduction

In his inspiring study entitled "The Paragraph – a Central Unit of the Thematic and Compositional Build-up of Texts" (1995), František Daneš argues that the paragraph is primarily a content unit delimited by its boundaries and its inner coherence. Elaborating Mathesius's original typology of paragraphs (1942; 1982), Daneš uses his own concept of thematic progressions. Thus he ingeniously correlates two homonymous terms delimited on two hierarchized levels, namely "the notion of 'theme' in the textual sense"1 and "the concept of 'theme' (or 'topic') in the frame-of-reference of the so-called functional sentence perspective". Daneš argues that "the basis of thematic units is to be seen in semantic (cognitive) structures and that their thematic functions are of a textual character; they are assigned to the semantic structures on the basis of their 'relevance in the given text world'" (1995, 32). In his view, both kinds of 'theme' answer the same question, i.e., 'What is the speaker talking about?'

Daneš tries to investigate the interrelation of the two distinct thematic categories: "What is important is the way in which the two thematic levels are interrelated and how they interact, in what way the individual utterance themes contribute to the construction of 'hyperthemes' (i.e. text themes)" (1995, 32).

Taking into consideration the various relationships between the paragraph theme (P-theme, hypertheme) and the themes of individual utterances (U-themes) of which the paragraphs consist, Daneš delimits four types of the thematic build-up of paragraphs:

First, there are paragraphs with a stable P-theme, in which the U-themes represent a kind of a recurrence of the P-theme. Their thematic organization is based on the continuous theme strategy.

Second, paragraphs whose P-theme is unfolded by a number of particular U-themes are further subclassified into two subtypes. On the one hand, the paragraph utterances may thematize individual aspects of the P-theme. These aspect U-themes correspond to derived continuous themes in the framework of the thematic progressions. On the other hand, paragraphs displaying a multiple P-theme split into two or more partial themes which are in turn treated one after the other in particular utterances. "That is, first, the partial P-theme 1 will be processed (unfol-
ded) in a string of utterances with U-theme 1, U-theme 2, … and subsequently, in a similar manner, the partial P-theme 2 will be processed”.

The aforementioned two major types of paragraphs (where the P-theme is stable or unfolds) are based on "paradigmatic coherence".

Conversely, syntagmatic coherence gives rise to the third type, called a content frame paragraph. "The P-theme has the character of a content frame (in the sense of frames, scripts, schemes), comprising a set of single items (phenomena), which will be exposed or also unfolded as single partial themes." Here again Daneš distinguishes between two subtypes. On the one hand, "paragraphs with a successive specification or particularization of a P-theme having a frame character. We observe a thematic movement in the form of a serial thematization of the preceding rheme, i.e., each rheme becomes the theme of the next utterance". On the other hand, there are paragraphs containing exemplification or enumeration of the items composing the frame-like P-theme. These individual items of enumeration may, but also need not, have the status of utterances.

Lastly, Daneš distinguishes the paragraphs in which the P-theme develops. "In this instance the P-theme changes, passing and shifting to another theme, to a P-theme 2. That means that at a certain point of a TP (thematic progression, adapted by R.P.) the given utterance rheme will be thematized, exposed as a new P-theme, and further unfolded" (1995, 33–35)².

II. Hierarchy of Textual Hyperthemes

We may distinguish between several units of textual macrostructure, i.e., paragraphs, paragraph groups, sections, chapters, etc., all the way to whole texts. Although they differ in size, these units share linear arrangement and typically a clear graphic delimitation in writing. What is more, they are all primarily content units with a message to communicate, having their particular Textual Themes (on the textual, i.e., cognitive, factual, semantic, level) and a particular build-up.

For example, a paragraph is primarily linked to the written medium. It represents a distinct graphic unit of texts, having its beginning and its end. More importantly, however, it appears to be a content unit, having its own message, Textual Theme (P-theme) and an adequate build-up. In cases of mismatch between the paragraph as a graphic unit and the paragraph as a content unit, we tend to speak about (and prefer) conceptual or notional paragraphs (see Daneš, 1994, 1995).

Similarly, a paragraph group (PGr) may be defined as a group of paragraphs of the same text which consists of at least two paragraphs and shares a particular
Textual Theme (PGr-theme). Prototypically, in paragraph groups the boundaries coincide with those of the contained paragraphs. More exactly, the initial boundary falls on the opening of the first paragraph employed, and the final one coincides with the end of the last paragraph in the group. However, PGr may also include some paragraph fragment(s), or they may be composed of paragraph fragments exclusively (e.g., in notional paragraphs). In this article, the former prototypical paragraph groups will be referred to as major PGr, whereas the latter, including paragraph fragments, as minor PGr.

On closer inspection, we may distinguish between continuous groups of paragraphs on the one hand, and discontinuous groups of paragraphs on the other. In the latter case, a paragraph or a paragraph group is inserted inside another paragraph group, the insertion disrupting the sequence of paragraphs in the pragmatically expected continuous PGr.

Some paragraph groups are employed in texts in pure linear succession, with one PGr completed before another is started. However, not all texts are composed of such discrete PGr. Sometimes the paragraph groups partly overlap. In other words, such paragraph groups basically follow in succession, except for some paragraph(s) (or shorter paragraph group) simultaneously belonging to both PGr, bridging them.

EXAMPLE:
VIII 15 Dolly seemed alert yesterday as she moved around her pen with the three of her six lambs that keep her company, but occasionally her hind legs appeared a little unsteady.
IX 16 Vets at the institute have put her on anti-inflammatory drugs and prescribed a weight loss and exercise programme. They noticed a few weeks ago that Dolly was showing signs of lameness in her left hind leg.
X 18 "Arthritis is not unknown in this age of sheep," said Dolly’s vet, Tim King. 19 "The strange thing about Dolly is that arthritis normally affects the elbow in sheep. 20 In Dolly, her hip and knee joint are affected."
XI 21 Arthritis is not a single disease but the collective name for a range of conditions involving inflammation of the joints.
XII 22 Jim Clapp, a vet in the north Pennines with 20 years’ experience of working with sheep, said he would be astonished to come across a normal sheep with arthritis at so young an age.
XIII 23 “In the field, it would be ludicrous to have animals getting arthritis when they were five years old,” he said. (Guardian 5/1/2002)³

In this example paragraphs IX and X form a paragraph group with a common PGr-theme (‘vets at the institute’), while paragraphs X and XI share a common PGr-theme (‘arthritis’).⁴
Alternatively, paragraph groups may be meticulously hierarchized. For example, a paragraph group of the lower rank may be incorporated in (a) paragraph group(s) of a higher rank. In the above example, paragraphs XII and XIII form a lower-rank paragraph group (verging on a single notional paragraph), whereas paragraphs IX through XIII represent a higher-order discontinuous paragraph group with a shared implied Paragraph Group Theme ('vets'). Still, it appears that the lower-rank paragraph groups are more closely interrelated than their higher-rank counterparts. So, paragraph groups may follow in pure succession, but may also show various degrees of overlap and/or hierarchy.

Needless to add that in particular text types paragraph groups may combine to form various text sections, and several text sections may be in turn incorporated in larger text chapters. Finally, a whole text may consist of a number of chapters, varying in size, significance and differing in their position in the linear arrangement.

Analogously to the hierarchy obtaining among the units in macrostructure, we posit a hierarchy of Hyperthemes, which includes the Global Theme (G-theme), Paragraph-Group Theme (PGr-theme), and Paragraph Theme (P-theme). Admittedly, depending on the register and ultimately on the specific text in question, one may find some other varieties of Textual Hyperthemes, such as the Chapter Theme, or the Section Theme, etc., which may vary in their relative independence of the G-theme. Only to complete the picture, below the P-theme level, one may distinguish between the Paragraph Hypotheme (PH-theme) and the Utterance Theme (U-theme). (For a full discussion, see Pípalová, 2003a, 2003b.)

Fig. 1

G-theme – PGr 1 theme – P-theme 1
– P-theme 2
...
 PGr 2 theme – P-theme 1
 . – P-theme 2
 . – P-theme 3
 . ...

The Global Theme, holding the whole text together, is further elaborated by the hierarchically lower Textual Hyperthemes (various PGr-themes and P-themes). These Themes may handle the subject matter corresponding to the G-theme from a variety of standpoints or aspects. They may also grasp its modifications, types, or treat its development in time, etc. Their particular scopes follow from their respective labels. Therefore, the PGr-theme is an analogue of the G-theme on the
level of a group of paragraphs. The P-theme, on the other hand, represents an ana-
logue of the PGr-theme on the paragraph level.

Though generally valid, the suggested hierarchy does not hold for all texts. In
some cases, a single paragraph group represents the whole text. In others, the para-
graphs feature such P-themes which do not give rise to any paragraph groups.
Therefore, the intermediate category of the PGr(-theme) may be absent altogether.
Moreover, if represented at all, paragraph groups and their Themes may be delimi-
ted either relatively clearly, or less so. Finally, in extreme cases, all of the Lower
Rank Textual Hyperthemes (PGr-theme and P-theme) may be subsumed under the
G-theme (e.g., in single-paragraph texts).

However, since nearly all written texts are arranged in paragraphs, prototypically
without indicating any hierarchy among them, all the Textual Themes cannot but
be ultimately employed (represented) in paragraphs or be deducible from them.
Admittedly, some registers do make use of various techniques of suggesting the
hierarchy explicitly, for instance by paragraph numbering or lettering. Such in-
stances notwithstanding, there must be some linguistic means employed, indicating
the posited hierarchy. This paper strives, among other things, to examine some of
these means.

All the Textual Themes in texts may be either explicitly stated or just implied.
In the former case, they are launched by Topic Sentences. Accordingly, we may
distinguish between the Global Topic Sentence (GTS – putting aside the overall
title which has usually the form of a minor sentence, it prototypically falls on the
initial utterance), the Paragraph Group Topic Sentence (PGrTS – although it may
be set off to form a separate paragraph on its own, it is usually formally attached
to a particular paragraph where it tends to be placed initially or finally) and the
Topic Sentence (TS – in the narrow sense), i.e., Paragraph Topic Sentence.

The various types of Topic Sentences may trigger chains of concatenated elements,
whose lengths and distribution vary considerably from text to text. Thus the chains
may be confined to the boundaries of a single paragraph, or they may exceed para-
graph boundaries and operate in higher textual structures (macrostructures). Accor-
dingly, we may distinguish between paragraph-internal cohesive chains on the one
hand, and paragraph external ones, operating beyond a single paragraph boundary
(i.e., in PGr’s, in text sections, in chapters, in whole texts), on the other. Needless to
add, it is the latter group that appears more relevant for the textual macrostructure.

The hierarchy described so far has its repercussions on statistics. Whereas the
Global Themes’ exponents may enter chains of considerable length, the various
kinds of Lower Textual Hyperthemes, depending on their respective scopes, are considerably less ambitious. In other words, the quantitative analysis may help illuminate the actual Thematic hierarchy obtained in a researched text.

If explicitly featured, the exponents of the G-theme tend to enter the relatively longest chains of all, extending in the extreme case, across whole texts (see also Hasan's term "text-exhaustive chains" in Halliday, M.A.K. – Hasan, R. 1985, 84; analogously we may coin "paragraph (-group) – exhaustive chains"). These chains may interlace immediately succeeding utterances, or they may be interrupted, engaging items even across great(er) distances. Interestingly, the Global Theme remains activated (to borrow a term from Hajičová's framework, 1993) even after long intervals in texts. Moreover, the various more or less regular periodic returns of the G-theme only indirectly enhance its significance.

The PGr- and P-themes operate more locally, i.e., they are confined to particular portions of texts. Consequently, the frequency of their exponents is rather restricted. They tend to form less extensive chains, which are launched only to be subsequently discontinued. Moreover, on the whole, the distances between the chain elements appear to be much shorter. By giving way to the G-theme, the Lower-Rank Hypertheme chains indirectly strengthen the former's central position.

Whereas the G-theme is endowed with an integrative role, the Lower-Rank Hyperthemes appear much more crucial for text articulation, i.e., for its structuring into manageable wholes. Their respective scopes frequently coincide with the boundaries of various higher text units (e.g., paragraphs, paragraph groups, text sections, etc.). As a result, such texts display relatively sharp, clearly delimited, and non-arbitrary paragraph (group) boundaries (see also major vs. minor PGr's above). Admittedly, the boundaries of the chains of interlaced elements may, but also need not, coincide with those of the textual macrostructures (paragraph groups, sections, whole texts). In the latter case, the boundaries of such higher text structures are much more tenuous, diffuse, or even arbitrary.

Whereas the Global Theme holds the whole text together, being rather static, the Lower Textual Hyperthemes embody a relatively greater degree of variability. Therefore, the higher one gets up the hierarchy scale, the greater the degree of the static element, centripetal force, or stability. Conversely, the lower one gets down the hierarchy scale, the greater the proportion of the centrifugal force or variability.

The Global Theme, the hierarchically highest Textual Theme, is marked by the greatest degree of stability, producing an integrative effect. In other words, the Global Theme maintains primary connectedness in texts. Being marked by stability
connotes centrality, unification, and stabilization. In addition, for the producer, it implies concentration, elaboration, dwelling on a point, conveying focus, or even emphasis. For the recipient, it also evokes a considerable degree of predictability, and reliability.

Conversely, greater variability, characteristic more of the Lower-Rank Hyper-themes (PGr- and P-themes), suggests that the relevant item serves primarily as a bridge to another, is mentioned only in passing, carries the reader further, bears the text motion and ensures its progress, or development. By being more neatly qualified and particularized compared to the G-theme, the Lower-Rank Hyper-themes are also to some extent marked off from the others within the same textual macrostructure. Therefore, they connote a higher degree of particularization, specification and differentiation from the others. Moreover, they are marked by greater independence of the others and by an increasing measure of novelty.

Unlike the Global Theme’s exponents, which are typically only retrievable, the exponents of the Lower-Rank Themes tend to be partly retrievable, and partly irretrievable. It follows that the hierarchy of Textual Themes is, as a rule, also related to the extent the individual Themes contribute to the development of the text, and to the accretion of information in the text.

The Global Theme exponents tend to be the most (fully) retrievable (of all). They appear to be retrievable to such a degree that their central position in the suggested Textual hierarchy may be largely unaffected by the actual function they adopt on the FSP level. At times, the fully retrievable G-theme exponents are felt redundant to such an extent that they are ellipted altogether. Presumably, this is due to their full and firm establishment on the scene of the discourse so that continuous reminders of them might be felt tiring and self-evidently redundant. G-Theme exponents may be even subjected to what we term coherence ellipsis, a modality of pragmatic ellipsis.

Moreover, the Global Theme's central position may be, among other things, indicated also by the direction of derivation. By engaging items in various relationships, the Global Theme assigns and delegates some significance to them. The items entering a whole web of relationships, where the reader can point backwards or forwards, cross-refer at will to other items, are in a way central, highlighted, made more conspicuous or even prominent. Conversely, they all only strengthen the position of the Global Theme and enhance its familiarity for the recipient.

Furthermore, the continuous derivations from the G-theme might be viewed as a method of what J. Firbas (1995, 23–24) called "distance bridging" (formerly:
"gap filling"). "Cases of special interest are those in which retrievability remains unobliterated even if the notion in question has not been explicitly re-expressed. This is due to vicarious auxiliary signals that keep the retrievability span open." Firbas gives several types of the so called distance bridging, such as direct speech, which vicariously signals the presence both of the speaker and the addressee. If I have understood the concept correctly, it appears that elements derived from, or otherwise related to, the G-theme keep it indirectly activated, bridging the relevant distances.

The direction of derivation is closely linked to the concept of derivation measured on the cohesion scale. By way of an example, inclusion appears to be more directly linked to its antecedent than loose associations (contiguity). Conversely, inclusion appears to be less directly related to its antecedent than identity. Also, the type of cohesive relationship detected among the exponents of the hierarchized Textual Hyperthemes may rank among the many factors co-determining the degree of relevance the particular Lower-Rank Hypertheme has for its respective Higher-Order counterpart (i.e., discriminating thus between the crucial, indispensable, mainstream Textual Themes and the auxiliary ones, including various asides and digressions.

Presumably, the G-theme's exponents tend to enter identity chains, whereas Lower-Rank Themes, being less static in kind, tend to enter also similarity chains, to use R. Hasan's dichotomy of Identity chains vs. Similarity chains (1984). Since the G-theme is the most static element in a text, it follows that the chains interlacing its exponents are prone to be Identity chains. Translated into our terminology, the primary cohesive links detectable among the G-theme exponents tend to be those of identity and equivalence.

Furthermore, we distinguish between serial derivation on the one hand, and parallel derivation on the other. The former renders the derived Textual Hyperthemes hierarchized, whereas the latter implies positional comparability and commensurability. Thus it seems that the number of successive steps in a derivation chain (labelled as the 'depth' of derivation) suggests the placement of the respective Lower-Rank Hypertheme in a tentative hierarchy.

III. Content and Structural Duality of Textual Hyperthemes

In his well-known article Krátká úvaha na téma "téma" (A Short Reflection on the Theme 'Theme'), K. Hausenblas (1969, 10) maintains that there are two aspects of (Textual) THEME – 1 the specific cognitive content of a text, depicting a por-
tion of (fictitious) extralinguistic reality and 2 a principle of the content build-up of texts. In the latter sense the (Textual) THEME is seen as a means of text structuring.8

Nearly fifty years later, we can only endorse this duality. Also valid are Hausenblas’s words describing the ease with which we tend to posit the Theme as a theoretical category, and the difficulties we face when identifying its specific content in individual texts.

In what follows, we shall examine each of the two aspects of Textual Themes in turn, despite their being closely interrelated (i.e., one presupposing and conditioning the other). Presumably, its content aspect is primarily extralinguistic and only secondarily textual (forming an indispensable unit of texture). Conversely, its structural aspect appears to be primarily textual and only secondarily inspired by the extralinguistic arrangements (e.g., causal conditioning, changes with time, etc.).

III.1. Content Aspect of Textual Hyperthemes

In an effort to elaborate the content dimension of the G-theme at least to some extent, we can offer the following comments. Putting aside the definition of the G-theme’s content as an abstraction, or summary, it seems that it may be delimited on at least three distinct hierarchized levels. In the broadest sense, it involves all the elements inherently taken for granted in the particular speech event. Adopting as a suitable treatment Kořenský et al.’s approach (1987), the broadest treatment would correspond to a whole array of gradually established constituents derived from, and reflecting, the comprehensive structure of the communicative event. The latter involves the socio-psychological (sub)structure (i.e., the social, psycho-physiological and communicative features of the participants, their mutual relationships, the shared knowledge and experience, etc.), the communicative competence structure (the participants’ knowledge of the social and communicative norms, their shared experiential and cognitive pool, and their use of the verbal and non-verbal codes), the pragmatic structure (communicative intentions, strategies, goals, etc.), object structure (participants, present personal and non-personal objects, the communicative medium and channel, records of previous communications, etc.), and, the arguably most decisive Theme-and-content structure (i.e., the discussed personal and non-personal objects, and other content items, including the metacommunicative ones). (Moreover, it appears that the content aspect of the G-theme influences (and, at the same time, is influenced by) the text type and text pattern (these falling in the structural aspect of the G-theme).
However, the aforementioned structures and constituents of the general communicative framework do not always enjoy equal standing. First and foremost, not all of them need be linguistically incorporated in the text. Particularly in certain registers, some of them may be backgrounded, tacitly presupposed, latently present, concealed, only marginally alluded to, etc., as against those which may be explicitly mentioned, foregrounded, frequently featured, etc.

Of the above-mentioned structure of the communicative event, the Theme-and-content (sub)structure, notably the Thematic constituent itself, may be simultaneously viewed as the delimitation of the G-theme’s content aspect in the narrower sense. It should be recalled that in the cited treatment, Theme is conceived of as the content-and-strategic starting point of reasoning and communication, which determines the shaping of the content structure as an organized pool (Kořenský, 1987, 143).

This narrower G-theme content aspect is, however, by no means necessarily simple. It is composed of a number of established content elements essential for the aboutness of the particular message. For example, in narrative fiction the traditional major and very complex thematic constituents include the characters, the plot and the setting. (Needless to add that in verbal art, given its second-order semiosis, each thematic constituent becomes a special, second-order sign. For further discussion, see e.g., Červenka, 1968/1992, Hasan, 1985). Focussing on characters alone, Červenka (1982, 25) posits that the respective hierarchically highest Hypertheme in a fictional narrative text is the sum total of its characters on the scene of the discourse.

Moreover, the more specific layer of the G-theme need not be homogenous either. Rather, we may assume that there are more central and less central elements or discourse subjects (hereinafter DS, see Daneš, 1989) composing the G-theme’s more specific content, their respective roles naturally reflecting their particular positions in the hierarchy of "aboutness", or the "what is being discussed". Presumably, the higher the stability and/or frequency and/or its degree of interrelates with other units, the higher the significance of the content unit in question in the whole layer of Theme-and-content structure.

In the narrowest sense, however, the content aspect of the G-theme may be identified with the most salient element or elements of the Theme-and-content structure, e.g., the subject of scrutiny in a scientific monograph; or a protagonist in an autobiographical novel (though itself a second-order sign, see above). Needless to add that these elements appear to find their explicit representation in texts most readily. Prototypically, they are featured, indicated, indirectly suggested or other-
wise anticipated already in the title itself. The anticipatory role of the title, is, however, rather problematic. There are texts where the formulation of the title delimits the (narrower/narrowest) G-theme explicitly and unambiguously. Admittedly, particularly in some registers, the titles may be, in terms of the identification of the G-theme, rather obscure, intentionally figurative, or even provocatively misleading. They might also conceal the G-theme purposefully to arouse the interest of the potential readers.

Presumably, these tiers, among other things, suggest which elements constituting the G-theme are typically foregrounded and which are not. It seems that each tier is incorporated in the immediately succeeding broader counterpart as its somewhat foregrounded constituent. Frequently, in response to the question of "what the text is all about", we tend to prefer the narrower, i.e., more specific interpretation(s) of the G-theme. Despite these tiers in the delimitation of the G-theme, we tend to think of the G-theme as a cognitive entity which unites rather than separates, has an integrative force, lends sense to the selection and arrangement of hierarchically lower Themes, motivating them.

Frequently, we tend to prefer the narrower, i.e., the more specific delimitations of the G-theme's content. However, unless these are matched with explicit verbalizations in the text, usually in the form of a nominal, referential element, the reconstruction of the implied G-theme's content poses a problem. Not only may there be various degrees of discrepancies between the author's intention and the recipient's/s' reception(s) of the text, but there may also be more ways of expressing and communicating a single G-theme's content. Whatever the strategy adopted, in wording the implied G-theme's content dimension (mirroring some portion of (fictitious) extralinguistic reality), we tend to employ (syntactic) nouns, assigning the G-theme the status of 'object-ness'. Depending on the individual texts in question we may select concrete to abstract ones. The level of abstraction is partly arbitrary, though. For example, a text devoted to Dolly, the first cloned sheep, may be described also as embodying a case study of Dolly, as dealing with animal cloning (in general), or with the cloning process as such, or even possibly with the recent developments in biology, etc.

Moreover, even given one level of abstraction, it may be worded, at least in some cases, by a variety of linguistic means. The choice of these items, however, to some extent obviously modulates and modifies the G-theme's concept. To identify (the most conspicuous element/s of the) the G-theme, one may theoretically choose from a number of linguistic means differing at least in their intensions.
Particularly in reconstructing the implied G-theme, however, one should be warned against identifying the G-theme with the text message, summary, or the gist of the communication, against confounding the G-theme with a kind of a brief recapitulation of the content communicated by the text as a whole (presumably only in retrospect). After all, a Theme promises what the text message as such delivers. Another danger exists in confounding the G-Theme with the intended or potential interpretation, or else possibly with one of the G-theme's developmental stages, or aspects. The content of the G-theme, at least in this study, will be seen as the most static, unifying element embodying the 'aboutness', i.e., the subject matter treated, or as the "what has been subjected to some description, analysis, scrutiny, narration," etc.

III.2. Structural Aspect of Textual Hyperthemes

As far as the structural aspect of the G-theme is concerned, there appears to exist a hierarchy in texts. Thus, largely, the same patterns recognized in the build-up of paragraphs seem to exist also above the paragraph level, in paragraph groups or even in whole texts, i.e., in the macrotextual organization of texts. The text build-up therefore displays a clearly recursive character. Perhaps it is needless to add that such recursiveness may not always hold absolutely. Since there may be a number of arrangements combined in particular texts, the recursiveness may be represented in various impure forms. The following tentative typology may be seen as applicable to the overall general textual backbone only, obviously at the respective level of textual build-up (be it paragraph groups, text sections, or whole texts), by no means excluding various departures and deviations from the following (idealized) patterns, which form a scale of decreasing degrees of stability. Moreover, the perception of various Thematic links and progressions typically develops from an interplay of a number of text factors. In what follows, however, we will have space to address only some of the most conspicuous among them.

**Stable G-theme** texts appear to feature a single Thematic DS (DS group), whose exponents are reiterated throughout the text as such, virtually without displaying any accretion of information or novelty. The prevailing chains entered by the DS exponents tend to be very long identity chains. These chains are essentially homogenous, engaging retrievable elements exclusively. The elements entering the G-theme chains may be also exposed as P(Gr)-themes. Moreover, in individual utterances, they need not be always confined to any particular FSP functions. Being retrievable and highly activated, their central position is not affected by the
specific roles they have in individual utterances. The most characteristic cohesive modes are identity and equivalence. This text pattern is marked by the top degree of stability.

The following text sample is taken from a monograph on C. G. Jung. The G-theme (‘Jung’) is suggested using a whole interplay of means, including the anthroponym (Jung), personal pronouns (he, him, I (in direct speech)), possessive pronouns (his, my, our), reflexive pronouns (himself), functional zero exponents, i.e., ellipsis of the doer, in non-finite clauses (XXIII), etc. Note that in 137–139, the G-theme chain is submerged, see Note 2) above:

XXI 122 Jung’s scepticism concerning Eastern metaphysics was, however, the consequence of a more general methodological standpoint which he adopted. 123 Jung has sometimes been identified with the Christian faith, or perhaps with a peculiar Gnostic version of it. 124 However, he was always careful to attempt to separate his subjective and personal beliefs from his ‘official’ scientific convictions. 125 ‘As a responsible scientist’, he wrote, ‘I am not going to preach my personal and subjective convictions which I cannot prove’ (CW18.1589). 126 There is no place in psychology for matters of faith or doctrine since these must always transcend our rational understanding.…

XXII 131 In his approach to religious belief, therefore, he sought to lay to one side its metaphysical assumptions and to concentrate his attention on the phenomenology of belief. 132 ‘Our psychology is, therefore, a science of mere phenomena without any metaphysical implications’, he wrote (CWII.759). 133 ‘I quite deliberately bring everything …

XXIII 135 He took precisely the same approach to the belief systems of the East. 136 Here, too, he attempted to set on one side all metaphysical claims, treating them with agnostic indifference, and concentrating his attention on their psychological nature and significance. 137 We saw earlier that in dealing with the concept of karma, for example, he was careful to avoid any presumption concerning the doctrine of rebirth, treating it instead as an expression of the collective unconscious, a notion for which he claimed nothing but empiricist credentials. 138 We saw too how, in his Commentary on The Tibetan Book of the Dead, he transformed the experiences… (cf. Appendix)

**Unfolded G-theme** texts deal with extralinguistic entities or elements, which are not treated as indivisible units or wholes. Rather, they are captured through their individual constitutive components, parts, aspects, species or types, which, in turn, tend to be featured independently, one at a time. Needless to add that each such component or type may become a P(Gr)-theme on its own. In their summary they give rise to the mosaic of the Thematic DS in question, whether or not their list is exhaustive. The prevalent type of cohesion linking Higher-Rank Hyperthematic elements and the Lower-Rank counterparts is inclusion. Prototypically, the part-whole or else the type-specimen relationship is made explicit. The pattern may be
characterized as stability of the whole by means of (through) the sum total of its components.

In the following text sample, the PGrTS falls on (69). It involves coherence ellipsis of 'mammal species'. The group – species relationship is also indicated by the exemplification conjunct in (70). The PGr is composed of discrete paragraphs. Apart from XX, all are major. Although the build-up of individual paragraphs varies, the arrangement of the whole PGr follows the unfolded PGr-theme pattern consistently:

XX 68 Since then, some species have been deliberately exterminated (the wolf, the beaver and the bear). 69 Many others have been introduced either deliberately or by accident. 70 The rabbit, for example, is not a 'native' at all. 71 Although the Romans may have brought in some from the western Mediterranean, there is no mention of rabbit warrens in the Domesday Book (1086). 72 The rabbit's main introduction is most likely to have been by returning crusaders before 1200. 73 The return of farmland to wasteland after the Black Death in 1381 allowed rabbits to spread far and fast.

XXI 74 The black (ship) rat reached Britain from the East in the baggage of merchants, infested with fleas that spread the Black Death and Plague. 75 Nowadays it is principally confined to larger ports and a few islands, although it retains a capacity for turning up in unlikely places. 76 Its cousin, the common (brown) rat, arrived from Russia around 1682. 77 Within a hundred years it had spread right across the land and, by swimming from shipwrecks, on to almost all islands.

XXII 78 The 'native' brown hare was introduced as a game animal to Ireland and the larger Scottish islands.

XXIII 79 Among deer, the red and the roe are … (Norwich, 1991, 30–31) (cf. Appendix)

Static Frame G-theme texts are concerned with topics which may be relatively looser, broader, less clearly delimited, diffuse, implied, sometimes to be reconstructed at the intersection, or the common ground of (the majority of) the Lower-Rank Hyperthemes. These G-themes are characterized as scenarios, frames, or scripts. Such a Frame G-theme may be distilled at the intersection of the largest proportion of Hierarchically Lower Themes so that it may assume the central position in a reconstructed 'mind map'. It may also be presupposed by the Lower-Rank Themes and tends to remain for the most part of the text fully retrievable. This overall common ground or frame produces a stabilizing effect and thus it embodies the centripetal force, from which the Lower-Rank Hyperthemes radiate. By way of contrast, the Lower Hyperthemes/Local Themes tend to display considerable diversity and variability, resembling loose associative relationships to the common ground embodied by the G-theme, through which they all hang together. As for
cohesion at the Hyperthematic level, parallelism and contiguity appear to prevail. Generally speaking, this pattern seems to be characterized by stability of the frame exclusively.

In the following sample, the G-theme ('ageing') holds together a whole kaleidoscope of loosely linked Lower-Rank Hyperthemes including ('free-radicals'), ('ethical implications of longevity'), ('a company to try anti-ageing drugs'), etc.

Life without Death
I 1 Every year millions of people suffer from a mysterious syndrome. 2 Patients gradually lose their ability to regenerate body tissue, their muscles waste and their skin loses elasticity. 3 They become infertile, and most report a reduced sex-drive. 4 Orthopaedic disorders and progressive damage to the sense organs and central nervous system are also common. 5 This syndrome is closely related to disorders such as Alzheimer's, Parkinson's, cancer and cardiovascular disease. 6 It is called ageing.
II 7 Until recently, the thought that there might ever be a cure for ageing seemed preposterous. 8 Growing older and more decrepit appeared to be an inevitable and necessary part of being human. 9 Over the last decade, however, scientists have begun to see ageing differently. 10 Some now believe that the average life-expectancy may soon be pushed up to 160 years; others think that it may be extended to 200 or 300 years. 11 A handful even wonder whether we might one day live for a millennium or more.
III 012 Behind this new excitement is the theory that the primary cause of ageing lies in highly reactive molecules called free radicals, left behind by the oxygen we breathe. 13 Free radicals react with the molecules....
IV 15 A year ago Gordon Lithgow of the University of Manchester discovered a way to help combat free radicals....
V 20 In June last year a small American company called Eukarion sought permission to carry out the first trials of an anti-ageing drug, SCS (synthetic catalytic scavengers), on human beings....
VII 28 Quite apart from these sorts of horrors, the ethical implications of extending human lifespan are likely to fill many with trepidation....
VIII 32 There are also economic considerations... (The Spectator, 9/2/2002) (cf. Appendix)

The dynamic frame G-themes are marked by a considerable degree of instability. The chief characteristic feature is the concatenation of Lower-Rank Hyperthemes (sometimes matched by a concatenative tendency all the way to the Utterance-theme level, but not necessarily so). The crucial factor, however, embodying the integrity of the text, is the existence of a (firm or more tenuous) frame, which is sometimes announced beforehand (as is the case of the following sample), sometimes it is produced, revealed, and/or verbalized only at the end, but it may also remain only implied, though undeniable.
Seeing Atoms
LV 194 The instrument that fulfilled Democritus' 2000-year-old dream was called the 'scanning tunnelling microscope', or STM for short. It was born in the autumn of 1978 when Binnig, a 31-year-old German doctoral student, was putting the finishing touches to his thesis at Wolfgang Goethe University in Frankfurt.
LVI 196 Binnig was interested in the surfaces of semiconductor materials such as silicon, which formed the foundations of computer chips. It was an interest which happened to be shared by Heinrich Rohrer, a middle-aged Swiss physicist who was visiting Binnig's university from IBM's research laboratory in Zurich. When the two men bumped into each other one day, their conversation turned to the prospects of ever being able to see the fine details of surfaces like silicon. Such a feat, if possible, would be a boon to computer manufacturers, who were constantly trying to shrink transistors and other electronic components and pack them closer together on the surface of chips. In this task, they were severely hampered by their ignorance of what such surfaces looked like on a very small scale. They were like gods who towered above the miniature landscape of their world but whose eyes were hopelessly blindfolded.
LVII 202 But even a blindfolded god has one means open to him to determine the lie of the land. He can use his sense of touch to feel the ups and downs of hills and valleys, and in this way build up a mental picture of the landscape… (Chown, M.: 1999, 13–14)

The Developing G-theme texts are characterized by the top degree of instability right at the highest textual level. The essential difference from all the above patterns resides in the absence of a single integrative G-theme. Instead, the G1, elaborated initially, abruptly shifts, gradually passes or almost unnoticeably infiltrates into G2, which in turn substitutes and disconnects the treatment of the former.

Such texts, then, are marked by the stability of development, i.e., by constant progress. Indeed, if pursued consistently, the concatenative tendency detected among Lower-Rank Hyperthemes could, in extreme cases, produce outright departures, meandrings, or digressions from the original G (1)-theme. Admittedly, strictly theoretically speaking, the overall G might still be conceived of as the sum total of the G1 and G2, but the two Themes are not always commensurable or compatible. In such cases a pure addition may be impracticable. Moreover, a clear link between the two Hyperthemes may be missing.

Further, owing to the potential twists and turns at Textual macrostructure, the recipient may find the relationship between the G1 and G2 rather unexpected or obscure. Naturally, in the absence of a single integrative G-theme, the reception of a text as a coherent unit may be endangered.
Ensuring coherence, representing one of the seven constitutive standards of textuality (see Beaugrande, Dressler, 1981), is however no less the duty of the writer than it is a duty of the reader. Therefore, despite the apparent incompatibility at the Hyperthematic level, the recipient tends to put effort in disclosing at least some "semantic unity or meaningfulness"\textsuperscript{10} of the text, s/he tends to work it out at least retrospectively, and perhaps exploiting the Relation Maxim of the Cooperative Principle (Grice, 1975), s/he strives to reconstruct a supra-frame, embracing the two apparently disparate Semi-Global Themes. And even if not always guided by the writer, in many instances s/he may succeed.

Due to the collaborative effort between the participants in communication (Linell, 1998), it seems that the less conspicuous is the link at textual macrostructure indicated by the writer, the more the effort from the reader is required. However, the reader may be rewarded by discovering extra layers of the message communicated. For this reason, the strategy may be occasionally successfully exploited to some specific, usually stylistic ends. Moreover, the arrangement may generate a particular pragmatic implicature.

It follows that not all such Developing G-theme texts are necessarily deviant or infelicitous. After all, any digression may involve a return to the mainstream at a particular moment, which, if implemented, brings the text close to a (Developing) Frame format. Even though generally rather peripheral in the written medium (presumably unlike in oral registers) some skilled authors deliberately employ the arrangement to provoke the readers, to kindle their interest, to enhance their curiosity, to create a dramatic tension, to demonstrate a parallel or contrast between the two distinct and apparently irreconcilable entities, etc., without going astray. They clearly manage to create in readers an ultimate sense of semantic unity.

Conversely, some other Developing G-Theme texts are less prone to be appreciated as (unambiguously) coherent ones, lacking focus and betraying lack of skill or care. As a rule, their coherence is pushed down from the Higher Textual Themes and maintained only at more Local Themes (see also Mey, 1993).\textsuperscript{11} Thus, we can posit a scale of texts with a Developing G-theme from perfectly coherent ones all the way to almost non-sequitur ones. As a result, such texts may tread a very fine line between a prose continually shifting focus and a prose altogether lacking focus.

In the following text sample, the deliberate digression from G1 ('MichaelHoward') (which as such is launched through a Developing P-theme paragraph) to G2 ('Cicero') and their ultimate reunion, is exploited to both stylistic and pragmatic ends and by no means impairs the overall reception of the text as a coherent entity.
Ancient and Modern

LXVIII 299 With the Tory party facing defeat at the third election in a row, no ambitious young tiger would want to be leader at this juncture. 300 Hence Michael Howard. 301 He has never quite made it, but is an experienced politician with absolutely nothing to lose, now handed a quite unexpected, even if minuscule, chance of the great prize. 302 He is rather like Cicero trying to restore the Republic after the dictatorial Caesar – who had played a critical part in its decline – had been assassinated.

LXIX 303 Cicero had long been a spent force in Roman politics when the Ides of March 44 bc made it seem possible that the Republic was not dead after all. 304 True, Caesar himself had judged res publica to be 'a mere title, without form or substance'. 305 But Cicero was convinced that the Roman people were ready to return to the good old days, and he was the man to take them there. 306 So Cicero relaunched his career, becoming the champion of libertas and res publica against Caesar’s heir-apparent Mark Anthony. 307 But the whole enterprise quickly turned to ashes.

LXX 308 First, Cicero was high on passion, but nowhere when it came to effective policy…

LXXI 312 Second, Cicero’s analysis was too simplistic….

LXXII 318 Howard is a wily old bird. 319 If he can learn from Cicero the importance of decisiveness and acumen, he might at least make the party electable again, however keenly the young tigers may then start sniffing the old man’s blood. (The Spectator, 29/11/2003) (cf. Appendix)

In another text sample (cf. Appendix, sample 6) the G1 theme (‘(Wilmut’s present report on) Dolly’s arthritis’) passes unnoticed to the G2 (‘(past reports on) various complications in all animal and human clones elsewhere’). Had a case study of Dolly been the communicative goal, as might reasonably be inferred from the title, the shift to G2 has arguably generated an implicature of blaming Dolly’s arthritis on the cloning process.

IV. Concluding Remarks

We have shown that principally the same patterns recognized for the P-theme may be detected in the build-up of various other Textual Hyperthemes (Global, Paragraph Group, Text Section, or Chapter Themes, etc.). Compared to the G-theme, the intermediate Hyperthemes tend to be more specific, and more conspicuously particularized. Compared to the P-theme, however, they tend to be much more tenuous. Further, as expounded above, given the hierarchy in the PGr’s, even the Lower-Rank PGr’s may display much clearer, tighter and closer interrelations than the Higher-Order ones.
It should also be noted that the G-theme patterns need not match any of the lower-level ones. In other words, there may, but also need not, be a harmony between the arrangements selected for the higher textual macrostructure and the paragraph structure. Indeed, there are texts in which several modes are suitably and ingeniously combined, or even hierarchized. As a result, the dynamic frame (syntagmatic) arrangement may be counterbalanced at paragraph level by the paradigmatic arrangements (i.e., paragraphs whose P-themes remain stable or else unfold). Conversely, against the background of the Stable Global Textual Theme (e.g., a main character in fictional texts) one might discern various narrative dynamic modes, descriptive sequences and the like, whose diversity will not disrupt the generally Stable G-Theme strategy.

Moreover, many texts display less consistent arrangements, adopting initially one pattern, but abandoning it soon, departing from it and holding on to another/others instead. By way of an example, a text may initially employ a Stable framework, but it may subsequently depart from it, gathering momentum and adopting a more Frame-like format. These texts either apparently lack deliberate planning, or else conversely, are a product of subtle complexity. In such texts, the Global Theme is better treated in its progress, development.

The suggested scale of the G-theme’s structural aspect appears to have a direct relationship to the degree of predictability for the selection of the Lower-Rank Hyperthemes. The greater the stability detected in the overall framework, the easier the prediction of the items selected for the corresponding Lower-Rank Themes. Conversely, the greater the diversity in the G-theme, the less predictable the actual choice of the succeeding Lower-Rank Hyperthemes appears to be.

It also follows that the greater the stability in the Textual macrostructure, presumably the easier it is for the reader to recognize the pattern, the less the effort in reconstructing the ‘semantic unity’ s/he has to make, and the easier it is for him/her to find the text coherent. Conversely, on the other extreme of the above tentative scale, the greater the instability in the Textual macrostructure, the more demanding it is for the readers to perceive global coherence, and the more collaborative effort from the recipient is called for. These tendencies, however, may be ultimately counterbalanced by the reader's own ability to activate his/her life experience in working out his/her coherence of the particular text.

Perhaps it is needless to note that there exists an affinity between certain registers and the arrangements preferred. For example, traditional narrative fictional texts appear to be inextricably linked to Stable G-theme texts, lending themselves
to the appreciation of global coherence more easily, almost effortlessly. Naturally, authors tend to select differing arrangements of the G-theme with respect to a number of considerations. Included among them are the intended readers' skills (adult vs. child readership), the difficulty of the subject matter conveyed (an informal chat vs. a ground-breaking academic lecture), etc. Still, a complete range of the factors determining the choices will have to await full exploration.

In addition, the more we go down the above tentative scale, the more we may depend on the Cooperative Principle (Grice, 1975) in unravelling the links. For example, in enumerative texts, the G-theme may be reconstructed on a pragmatic basis (e.g., overall general or specialised knowledge presupposed by a target group of recipients). It is assumed that the writer adheres to the Cooperative Principle and that s/he mentions only such species/types, which are really covered by the respective umbrella concept. On the other hand, on the recipient's end it is taken for granted that the reader takes the P-themes or PGr-themes as exemplifying, or as being directly recoverable from, the G-theme which, in turn, need not be continually recalled/reiterated throughout the text. This continuous inference or derivability of the G-theme testifies indirectly to its constant relevance, activation, and implied presence, even though the explicit exponents corresponding to the G-theme may be absent. Thus the G-theme's retrievability appears to be another method of "distance bridging" on the assumption that the reader can discern this linguistically suggested or pragmatically motivated relatedness.

Clearly, some links from the G-themes to the P(Gr)-themes are only pragmatic, presupposing the knowledge of the culture, the community, the interrelation of concepts in a particular discipline (insider-talk, etc.), whereas others are linguistically motivated and more explicitly indicated, using a number of means. These include appositions, demonstrative and possessive pronouns, etc. Thus, depending on the ease of recoverability of the P-/PGr-themes from the G-theme, the recipient appreciates the texts as intended for the general public, or else for some specialized target group. It is in the latter type of texts that the links between the G-theme and the P-/PGr-themes tend to be less explicit or purely pragmatically motivated.

Moreover, even though the PGr- and P-themes are hierarchically lower, not all of them are necessarily directly relevant for the development of the G-theme. Various setting descriptions, sidenotes, etc. may only have a very marginal role to play. Still, since they are always discerned and measured against the background of their G-theme correlates, they indirectly support the latter's centrality and key significance. Conversely, since the PGrs may deal with various settings, asides, scenic
descriptions and the like, it follows that the G-theme cannot be delimited purely mechanically, say, as the sum total or else the common intersection of all the PGr-themes involved in a text.

To recapitulate briefly, all of these Textual Themes have one thing in common: they are all delimited on the dichotomy: "what is spoken of – what is said about it". By way of contrast, the hierarchically lower FSP theme is based on the scale of communicative dynamism and may be contrasted with the high point of the message – the rheme. This paper focuses almost exclusively on the former, exploring the hierarchy among the Textual Hyperthemes, and dealing with their content and structural aspects. Logically it follows that future studies should address systematically the correlation of the Textual Hyperthemes and FSP functions.

Abbreviations and Symbols

Theme – Theme on Textual Level
U-theme – Utterance Theme (Textual Level)
PH-theme – Paragraph Hypotheme (Textual Level)
P-theme – Paragraph Theme (Textual Level)
PGr-theme – Paragraph Group Theme (Textual Level)
G-Theme – Global Theme (Textual Level)
DS – Discourse Subject
FSP – Functional Sentence Perspective
PGr – Paragraph Group
TS – Topic Sentence
PGrTS – Paragraph Group Topic Sentence
GTS – Global Topic Sentence
CP – Cooperative Principle
R.P. – Renata Pipalová
theme – theme on the FSP level

Notes

1 Theme in the textual sense was subjected to a thorough scrutiny by Hausenblas (1969, 1971); here cf. Part III.
2 Somewhat modifying the distinction between the two interpretations of the key homonymous terms of "THEME", in what follows, we shall tentatively reserve the capital-preceded 'themes' – P-theme (Paragraph Theme), PGr-theme (Paragraph Group Theme),
G-theme (Global Theme) – as interpreted on the textual, hierarchically superior level, i.e., as corresponding to a cognitive/content entity and defining the notion of subject matter aboutness or the 'topic' of a specific portion of a text (and ultimately based on the dichotomy "what is spoken about" versus "what is said about it"). In this sense, the Theme is more directly relevant to the reception of the text as a coherent whole. The non-capitalized "theme", on the other hand, will be delimited on the hierarchically lower FSP level, as the unit of the basic distributional field carrying the lowest degree of communicative dynamism (CD, cf. Firbas, 1992) and ultimately based on the dichotomy theme vs. rheme.

Both the Textual and the FSP themes may be correlated with their explicit linguistic exponents (discourse units) which may potentially enter thematic progressions and thus enhance the cohesion in a text (indirectly facilitating the interpretation of a text as a coherent one). On utterance level, the two respective categories (U-theme and theme) may at times correspond to the same discourse units, but naturally sometimes their exponents differ sharply. The latter obtains, for example, in empty thematic elements, such as there, etc.

To sum up, in this article, the Textual level Themes will be delimited on the grounds of the following dichotomy: "What is being spoken of, discussed" versus "What is said about it". On the hierarchically lower FSP level, the homonymous term of ‘theme’ will be conceived of as displaying the least degree of communicative dynamism and contrasted with the rheme.

3 In this paper, we shall employ the notation of the researched corpus, i.e., we shall reserve Arabic numerals for utterances, and Roman numerals for paragraphs.

4 Tellingly, the bridging paragraph (X) includes direct speech as well as a reporting clause. In harmony with Dušková (1988, 607), we will consider the direct speech stretches as special cases of content clauses. The direct speech itself is interwoven with a submerged thematic progression which resurfaces in XI, further see Pípalová, 2003a.

5 This complex and text (-type) specific hierarchy notwithstanding, for the sake of simplicity, however, in what follows we shall limit our attention to paragraphs, paragraph groups and whole texts, as well as their corresponding Textual Themes.

6 Coherence ellipsis is a type of omission suggesting recoverability from the preceding text, which is not motivated linguistically, structurally, yet it is vital for maintaining coherence in the particular text portion. When formulating texts, we tend to eliminate unnecessary repetitiveness. Instead, we may employ expressions or means which satisfy the requirement of 'elegant variation' (Leech – Short, 1981), including relatively vague, general, empty, or underinformative ones, even if these follow more particular or more informative counterparts in cohesive chains. Such choice suggests, among other things, that the Discourse Subject in question is deeply established on the scene of the discourse. Eg., Architecturally, it was disappointing…The most interesting (architectural) survivals…; Further south, the classical influence is much stronger and (there) we find at least one building…; (Watkin, 1991)

7 In Pípalová, 2003a, a tentative scale of cohesiveness was proposed, on the grounds of identity, equivalence, inclusion, parallelism, and contiguity. "Identity and equivalence do not involve any change in reference from their antecedents, although the latter is charac-
8 It should be recalled that the latter was elaborated by Daneš (1994, 1995); here cf. Part I.
9 “DSs are here conceived of as anything – i.e., objects, properties, states, relations, processes, actions, events, stories, even text parts – that the speaker has in mind when employing this or that naming unit. (Daneš, 1989, 235)
10 Urbanová, Oakland maintain that coherence is a property of discourse which enhances its semantic unity and particularly its meaningfulness. (202, 66)
11 In discussing the so called Coherence Principle, Mey (1993, 238–9) illustrates strictly 'local' coherence: 'The coherence in this piece of conversation is strictly 'local'…; it turns around the local, formal organization of the talk by referring to items that have been mentioned in the immediately preceding context…However, it is difficult to say what 'text cohesion' (or even 'text coherence') really is 'about' in this interchange…'(239)"

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APPENDIX

Sample 1 – Stable G-Theme

XXI 122 Jung’s scepticism concerning Eastern metaphysics was, however, the consequence of a more general methodological standpoint which he adopted. 123 Jung has sometimes been identified with the Christian faith, or perhaps with a peculiar Gnostic version of it. 124 However, he was always careful to attempt to separate his subjective and personal beliefs from his ‘official’ scientific convictions. 125 ‘As a responsible scientist’, he wrote, ‘I am not going to preach my personal and subjective convictions which I cannot prove’ (CW18.1589). 126 There is no place in psychology for matters of faith or doctrine since these must always transcend our rational understanding. 127 As a psychologist, therefore, he would not allow himself ‘to make statements about the divine being, since that would be a transgression of the limits of science’ (Letters I, 384). 128 Nevertheless, the fact of religious belief was of crucial significance for his understanding of the human psyche. 129 Where Freud had treated the phenomena of religion as bordering on the pathological, a sign of the childish dependence of mankind, Jung saw them as constituting the very core of the healthy human psyche. 130 For him the essence of religion lay not in beliefs and doctrines but rather in a certain kind of inner experience, creeds being merely codified, organised, and ossified forms of what was fundamentally a special sort of inner experience.

XXII 131 In his approach to religious belief, therefore, he sought to lay to one side its metaphysical assumptions and to concentrate his attention on the phenomenology of belief. 132 ‘Our psychology is, therefore, a science of mere phenomena without any metaphysical implications’, he wrote (CW18.759). 133 ‘I quite deliberately bring everything that purports to be metaphysical into the daylight of psychological understanding… [and] strip things of their metaphysical wrappings in order to make them objects of psychology’ (CW13.73). 134 Thus, for example, in dealing with the doctrine of the Resurrection he addressed himself, not to its historical or theological significance, but rather to its symbolic meaning as ‘the projection of an indirect realization of the self’, an image pointing towards psychological integration and wholeness (CW18.1567).

XXIII 135 He took precisely the same approach to the belief systems of the East. 136 Here, too, he attempted to set on one side all metaphysical claims, treating them with agnostic indifference, and concentrating his attention on their psychological nature and significance. 137 We saw earlier that in dealing with the concept of karma, for example, he was careful to avoid any presumption concerning the doctrine of rebirth, treating it instead as an expression of the collective unconscious, a notion for which he claimed nothing but empiricist credentials. 138 We saw too how, in his Commentary on The Tibetan Book of the Dead, he transformed the experiences of the dead soul in its passage from death to rebirth into psychological terms, and prefaced his introduction to The Tibetan Book of the Great Liberation with the disclaimer that ‘Psychology… treats all metaphysical claims and assertions as mental phenomena and regards them as statements about the mind and its structure’ (CW11.760). 139 And we saw in his discussion of the I Ching that he took a strictly agnostic attitude to its pronouncements, describing his approach as ‘psychological phenomenology’, and insisting that ‘nothing “ occult” is to be inferred. 140 My position in these matters is pragmatic’ (CW11.1000). 141 This distancing from the truth-claims of Eastern thought, as well as his hermeneutical intentions, is made clear in a letter of 1935 where he wrote that …

Sample 2 – Unfolded G-theme

XX 68 Since then, some species have been deliberately exterminated (the wolf, the beaver and the bear). 69 Many others have been introduced either deliberately or by accident. 70 The rabbit, for example, is not a ‘native’ at all. 71 Although the Romans may have brought in some from the western Mediterranean, there is no mention of rabbit warrens in the Domesday Book (1086). 72 The rabbit’s main introduction is most likely to have been by returning crusaders before 1200. 73 The return of farmland to wasteland after the Black Death in 1381 allowed rabbits to spread far and fast.
XXI 74 The black (ship) rat reached Britain from the East in the baggage of merchants, infested with fleas that spread the Black Death and Plague. 75 Nowadays it is principally confined to larger ports and a few islands, although it retains a capacity for turning up in unlikely places. 76 Its cousin, the common (brown) rat, arrived from Russia around 1682. 77 Within a hundred years it had spread right across the land and, by swimming from shipwrecks, on to almost all islands.

XXII 78 The 'native' brown hare was introduced as a game animal to Ireland and the larger Scottish islands.

XXIII 79 Among deer, the red and the roe are the only true natives, having survived through the last glaciation. 80 The fallow deer arrived later, having perhaps been introduced by Phoenician sailors or, more likely, by the Romans. 81 Other more exotic species like the Sika, muntjacs and Chinese water deer were introduced from 1860 onwards to decorate gentlemen's parks – from which some of them inevitably escaped.

XXIV 82 The North American grey squirrel was introduced still more recently – and more misguided – making its first appearance only in 1876. 83 It spread fast just at the time when the numbers of the native red squirrel were falling steeply from a period of unusual abundance. 84 Despite popular and persistent belief, the greys in no sense 'drove' out the reds, whose population may already have recently started upwards again on one of its long-term swings.

XXV 85 The recent escapes of various exotic animals, ranging from the coypu and the mink in 1919 to Mongolian gerbils in 1974, may have added interest to our native fauna; but they have certainly not improved it. 86 The experience of rabbits in Australia should have been enough to teach us that the release of 'foreign' animals into the wild is not only a silly thing to do; it is biologically dangerous as well. (Norwich, 1991, 30–31)

Sample 3 – Static-Frame G-theme

Life without Death

11 Every year millions of people suffer from a mysterious syndrome. 2 Patients gradually lose their ability to regenerate body tissue, their muscles waste and their skin loses elasticity. 3 They become infertile, and most report a reduced sex-drive. 4 Orthopaedic disorders and progressive damage to the sense organs and central nervous system are also common. 5 This syndrome is closely related to disorders such as Alzheimer’s, Parkinson’s, cancer and cardiovascular disease. 6 It is called ageing.

II 7 Until recently, the thought that there might ever be a cure for ageing seemed preposterous. 8 Growing older and more decrepit appeared to be an inevitable and necessary part of being human. 9 Over the last decade, however, scientists have begun to see ageing differently. 10 Some now believe that the average life-expectancy may soon be pushed up to 160 years; others think that it may be extended to 200 or 300 years. 11 A handful even wonder whether we might one day live for a millennium or more.

III 012 Behind this new excitement is the theory that the primary cause of ageing lies in highly reactive molecules called free radicals, left behind by the oxygen we breathe. 13 Free radicals react with the molecules in our bodies, damaging DNA, proteins and other cell tissues, and are known to be implicated in diseases as diverse as cataracts, cancer and Alzheimer’s. 14 The body does its best to protect itself against free radicals with antioxidant chemicals, such as vitamins E and C, and with antioxidant enzymes, such as superoxide dismutase, but it is always fighting a losing battle.

IV 15A year ago Gordon Lithgow of the University of Manchester discovered a way to help combat free radicals. 16 Using a synthetic antioxidant, designed to mimic superoxide dismutase, he managed to increase the lifespan of nematode earthworms by 50 per cent. 17 Despite cautionary words from the scientists, many hailed this as the first step towards an elixir of life. 18 Research involving the mutation of genes has also thrown up fascinating results: after identifying two of the genes that appear to control how long the nematode worm lives, homologues of these genes were found in organisms as various as fruit-flies, mice and human beings. 19 When one considers the vast evolutionary distances that separate these species, it suggests that we may have discovered a key to how ageing is regulated throughout the entire animal kingdom.
In June last year a small American company called Eukarion sought permission to carry out the first trials of an anti-ageing drug, SCS (synthetic catalytic scavengers), on human beings. Although it will initially be used to help stroke victims and treat diseases associated with old age, Eukarion said, that 'if the effect of treating diseases of old age is to extend life, everyone's going to be happy.'

Some scientists, however, are quick to quell extravagant speculation. There is no evidence whatsoever that ingestion of any chemical would have an effect on mammals,' says Rich Miller of the University of Michigan. 'And those people who claim it might need to go out and do some experimenting.' Some research, moreover, has produced alarming results. As well as controlling ageing, the genes in question determine hormonal pathways that signal to the receptors for insulin and insulin-like growth factor. The upshot of this is that although mutant mice can be made to live up to 80 per cent longer, their pituitary glands are defective and their growth is stunted.

Quite apart from these sorts of horrors, the ethical implications of extending human lifespan are likely to fill many with trepidation. Even if the falling birth-rates reported in the world's developed nations were to be duplicated across the globe, would this be sufficient to compensate for massively extended life-expectancy, and would we be willing to see the demographic balance of our society change out of all recognition? David Gems, the head of the Centre for Research into Ageing at University College, London, enthuses about the opportunities opened up by extended life, but even he observes, 'If people live much longer, the proportion of children would, of course, be very small. It strikes me that it might feel rather claustrophobic: all those middle-aged people and very few children or young people.'

There are also economic considerations. One might expect the retirement age simply to be pushed back by a decade or three and for the economy to expand as the number of dependants, children and pensioners became a much smaller proportion of the overall population. Unfortunately, our experience is of just the opposite. In today's world, more and more workers are laid off well before the existing retirement age of 65, and these are most frequently those with insufficient private means to support themselves.

The Christian ethicist and philosopher of science, the Revd John Polkinghorne, emphasises that any discussion of the merits of life-extending therapies must take into account the quality of the life that is lived: 'One would not wish to prolong life beyond the point it had ceased to be creative and fulfilling and meaningful,' he says. 'Presumably, there would have to come a point at which life ceased to be creative and became just repetition. Clearly, there are only so many rounds of golf one would want to play.'

But Polkinghorne, a member of the Human Genetics Commission, also observes that so far our experience of extended life-expectancy has not resulted in world-weariness. Throughout the last century, life-expectancy rose consistently, thanks to improved diet, better hygiene, continuous medical innovation and the provision of free or subsidised healthcare. In 1952 the Queen sent out 225 telegrams to people on their 100th birthday; in 1996 she sent out 5,218. 'Consider also, the lives of our Roman and Anglo-Saxon ancestors,' he says. 'By and large, the doubling of human lifespan we have seen since then has not been a bad thing. Life has not become frustrating and boring. For example, we now live to see our children's children, and this is good.'

John Harris, another member of the commission, has recently been turning his thoughts to imagining a world in which ageing was finally a thing of the past and the average life-expectancy was as much as 1,200 years. Harris finds the prospect of being a latter-day Methuselah attractive and warns us not to confuse what is good with what is merely familiar: 'The present situation with a generation of x million people succeeded by x million people succeeded by x million people is not necessarily better or more ethical than one in which the same x million people live on indefinitely.'

The instrument that fulfilled Democritus' 2000-year-old dream was called the 'scanning tunnelling microscope', or STM for short. It was born in the autumn of 1978 when Binnig, a 31-year-old...
German doctoral student, was putting the finishing touches to his thesis at Wolfgang Goethe University in Frankfurt.

LV. 196 Binnig was interested in the surfaces of ‘semiconductor’ materials such as silicon, which formed the foundations of computer chips. 197 It was an interest which happened to be shared by Heinrich Rohrer, a middle-aged Swiss physicist who was visiting Binnig’s university from IBM’s research laboratory in Zurich. 198 When the two men bumped into each other one day, their conversation turned to the prospects of ever being able to see the fine details of surfaces like silicon. 199 Such a feat, if possible, would be a boon to computer manufacturers, who were constantly trying to shrink transistors and other electronic components and pack them closer together on the surface of chips. 200 In this task, they were severely hampered by their ignorance of what such surfaces looked like on a very small scale. 201 They were like gods who towered above the miniature landscape of their world but whose eyes were hopelessly blindfolded.

LVII. 202 But even a blindfolded god has one means open to him to determine the lie of the land. 203 He can use his sense of touch to feel the ups and downs of hills and valleys, and in this way build up a mental picture of the landscape. 204 By running a giant finger over the ground, he might even be able to sense features as small as trees and buildings. 205 Using a finger to explore the submicroscopic landscape of a material like silicon might seem a little fanciful. 206 But, in essence, this was the idea that occurred to Binnig as he talked with Rohrer: 207 Instead of a finger of flesh and blood, however, he envisioned a finger of metal – a very fine needle, like the stylus of an old-fashioned record player.

LVIII. 208 Of course, there was no way a needle could actually feel a surface like a human finger. 209 However, if the needle were charged with electricity and placed extremely close to the surface of a metal or semiconductor, a minuscule, but measurable, electric current would leap the gap between the tip of the needle and the surface. 210 It was known as a ‘tunnelling current’, and it had a crucial property which Binnig realised might be exploited: the current was extraordinarily sensitive to the width of the gap. 211 If the needle were moved even a shade closer to the surface, the current would grow very rapidly; if it were pulled away a fraction, the current would plummet. 212 The size of the tunnelling current therefore revealed the distance between the needle tip and the surface: it gave the needle an artificial sense of touch.

LIX. 213 Rohrer was so impressed by Binnig’s idea that he invited him to Zurich to transform it into reality. 214 It was the start of an immensely productive partnership which would ultimately lead Binnig and Rohrer to Stockholm to receive the 1986 Nobel prize for physics.(Chown, M.: 1999, 13–14)

Sample 5 – Developing G-theme

Ancient and Modern

LXVIII. 299 With the Tory party facing defeat at the third election in a row, no ambitious young tiger would want to be leader at this juncture. 300 Hence Michael Howard. 301 He has never quite made it, but is an experienced politician with absolutely nothing to lose, now handed a quite unexpected, even if minuscule, chance of the great prize. 302 He is rather like Cicero trying to restore the Republic after the dictatorial Caesar – who had played a critical part in its decline – had been assassinated.

LXIX. 303 Cicero had long been a spent force in Roman politics when the Ides of March 44 bc made it seem possible that the Republic was not dead after all. 304 True, Caesar himself had judged res publica to be ‘a mere title, without form or substance’. 305 But Cicero was convinced that the Roman people were ready to return to the good old days, and he was the man to take them there. 306 So Cicero relaunched his career, becoming the champion of libertas and res publica against Caesar’s heir-apparent Mark Anthony. 307 But the whole enterprise quickly turned to ashes.
makes whether a course of action is adopted early or late. If only all the strong measures I proposed had been carried through there and then, and not put off from one day to the next, we should now have no war.' But they did, and it ended in defeat and Cicero's murder by Anthony's men on 7 December, 43 bc.

LXXI 312 Second, Cicero's analysis was too simplistic. The republic had been in a terminal state long before Julius Caesar had come to power, and during his time as (effectively) first emperor of Rome Caesar had altered the landscape of Roman politics for ever. 314 As early as 48 bc Cicero's son-in-law Dolabella had realised the truth, advising him, 'It is now time to take our stand where the res publica actually is, rather than pursuing its old image.' 315 But Cicero would not listen, driven as he was by memories of past glories. 316 In the event, Caesar turned out to have been right. Cicero's allies saw the way the wind was blowing, and abandoned him.

LXXII 318 Howard is a wily old bird. If he can learn from Cicero the importance of decisiveness and acumen, he might at least make the party electable again, however keenly the young tigers may then start sniffing the old man's blood. (The Spectator, 29/11/2003)

Sample 6 – Developing G-theme

Dolly the Sheep has Arthritis

I 1 Dolly the cloned sheep has developed arthritis at the relatively young age of five and a half, say the scientists who created her. 2 But they say it is impossible to know whether the cloning process is to blame.

II 3 "The fact that Dolly has arthritis at this comparatively young age suggests there may be problems," Ian Wilmut of the Roslin Institute in Scotland told the BBC. 4 But, he added: "We cannot ever know whether this is the result of cloning or just an unhappy coincidence." 5 The average lifespan of a sheep is 12 to 14 years.

III 6 Wilmut says only long-term, large-scale studies of cloned animals will reveal full information about the health implications of the procedure. 7 It is essential all cloning researchers share full information on cloned animals' health covering their whole lifespans, he says. 8 "I suspect none of the groups has enough animals on their own to draw sensible conclusions," he said.

IV 9 The company spun off to commercialise the Roslin Institute's research, PPL Therapeutics, had lost 15 per cent of its share value at 13:30 on Friday, following the news of Dolly's arthritis. 10 But the shares had surged 40 per cent the day before after a press release announced the birth of genetically modified pig clones.

"Gallery of horrors"

V 11 In November 2001, US cloning company Advanced Cell Technology (ACT) said detailed investigations of 24 surviving calf clones revealed all were normal. 12 But overall, Wilmut pointed out at the time, 73 per cent of pregnancies ended in abortion and 20 per cent of the cloned calves died soon after birth.

VI 13 Evidence of severe pregnancy complications and defects caused by cloning have been widely reported by cattle cloners. 14 There have been instances of dramatically oversized calves, enlarged tongues, intestinal blockages, immune deficiencies and diabetes.

VII 15 In the past, Wilmut had warned that companies seeking to create large numbers of cloned cattle to provide supermarket milk and meat should wait until large-scale, controlled trials of cattle cloning have been completed.

VIII 16 In November, ACT reported that it had created the first human cloned embryos. 17 But only one reached a six-cell stage. 18 And in December, ACT researcher Tanya Dominko reported that apparently healthy 32-cell monkey embryos were a "gallery of horrors" deep within.

IX 19 Cells in the vast majority did not form distinct nuclei containing all the chromosomes. 20 Dominko suggested that the trauma of removing the nucleus from the egg might be what triggers the defects. (New Scientist, 4/1/2002)
The paper distinguishes between two homonymous terms, *theme* in the so called Functional Sentence Perspective and the *Theme* in the textual (cognitive) sense. Focussing on the latter, it presents a hierarchy of Textual Themes which, depending particularly on the text type in question involves the Global Theme, the Chapter Theme, the Section Theme, the Paragraph Group Theme and the Paragraph Theme. Textual Themes, whatever their scopes, have their content and structural aspects. In the paper, the former is linked to the framework of communicative event. The analysis of the latter reveals clearly recursive tendencies in text macrostructure.