

**Thematic perspectivization and meta-schematic information in
the discourse of scientific atheism: Synergizing systemic
functional linguistics and social cognition**

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Abstract

The present study explores the cognitive basis of the Theme/Rheme structure in text and its potential for applicability at the macro level of discourse analysis. Towards this end, the study follows a synergetic methodology of systemic functional linguistics and social cognition, whereby the terms *Theme* and *perspective* are conflated under the concept of *thematic perspectivization* and the terms *Rheme* and *schema* under the concept of *meta-schematic information*. The current methodology proposes a systematic correlation between the elements of perspectivizer, perspectivizee, and perspectivized, on the one hand, and self-schema, person schema, and role schema, on the other. The latter types of schema have been demonstrated to be linguistically explicit in the New information falling within the Rheme structure in text. The data used for analysis is Richard Dawkins' (2006) polemical book *The God Delusion*, which typically represents a science-oriented type of atheistic discourse. The study has reached two findings. First, thematic perspectivization and meta-schematic information are fully-fledged discursive practices as their analysis demonstrates both the micro level of Theme/Rheme analysis and the macro level of schema analysis. Second, the systemic functional model of linguistic co-textual analysis can be augmented by incorporating the social-cognition model of contextual analysis.

Keywords:

Meta-schematic information; perspective; Rheme; schema; scientific atheism; social cognition; systemic functional linguistics; thematic perspectivization; Theme

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المنظور المرتبط بعنصر موضوع الجملة و التركيب المعلوماتي حول مخزون
الخبرة المعرفية في خطاب الإلحاد ذات التوجه العلمي: الجمع المنهجي بين علم
اللغة الوظيفي وعلم المعرفة الإجتماعي
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ملخص

تهدف الدراسة الحالية الى استكشاف الأساس المعرفي لتركيب الجملة من حيث
عنصري الموضوع (Theme) و المحمول (Rheme) داخل النص ، و مدى إمكانية
التطبيق الفعلي لهذا الأساس المعرفي على المستوى الأعم لتحليل الخطاب. ووصولاً
لهذا الهدف ، تتبع الدراسة منهجاً مركباً من علم اللغة الوظيفي وعلم المعرفة الإجتماعي
، والذي من خلاله يتم دمج مصطلحي موضوع الجملة و المنظور في المصطلح
المركب "المنظور المرتبط بعنصر موضوع الجملة" (thematic
perspectivization) ، كما يتم دمج مصطلحي "عنصر محمول الجملة" و "مخزون
الخبرة المعرفية" في المصطلح المركب "التركيب المعلوماتي حول مخزون الخبرة
المعرفية" (meta-schematic information). وتعرض منهجية البحث الحالية الى
فرضية الارتباط المنتظم بين عناصر صاحب المنظور (perspectivizer) و من يوجه
إليه المنظور (perspectivizee) و الظاهرة محل النظر (perspectivized) من جانب
، و علم الجانب الآخر (بالترتيب) المكونات الثلاثة لعنصر مخزون الخبرة المعرفية
(schema) و هم الخبرة المعرفية بالذات (self) و بالآخر (person) و بالدور
الإجتماعي الفاعل (role). وقد أثبتت الدراسة الحالية أن لهذه المكونات الثلاثة لعنصر
مخزون الخبرة المعرفية (schema) مظهراً لغوياً في دلالة التركيب المعرفي الواقع
في عنصر المحمول (Rheme) بالجملة داخل بنية النص. وتمثل البيانات المستخدمة
في التحليل داخل البحث كتاب "وهم الاله" (The God Delusion) الصادر عام
2006 لعالم البيولوجي الداروني الشهير ريتشارد دوكنز (Richard Dawkins) ؛ و
الكتاب تجسيد لخطاب الإلحاد ذات التوجه العلمي (scientific atheism). و لقد توصلت
الدراسة الحالية إلى نتيجتين أساسيتين و هما : أولاً ، يمكن اعتبار كلاً من "المنظور
المرتبط بعنصر موضوع الجملة" و "التركيب المعلوماتي حول مخزون الخبرة
المعرفية" بمثابة ممارسات خطابية مكتملة الأركان ، وهذا ما أظهره التحليل الخاص
ببيانات البحث على المستوى الأصغر لتحليل بنية النص من حيث موضوع و محمول
الجملة و المستوى الأكبر لتحليل الخطاب من حيث عنصر مخزون الخبرة المعرفية ؛
ثانياً ، يمكن إثراء نموذج التحليل اللغوي الوظيفي للنص إذا ما اقترن بنموذج التحليل
السياقي الخاص بعلم المعرفة الإجتماعي.

الكلمات المفتاحية للبحث:

التركيب المعلوماتي حول مخزون الخبرة المعرفية ؛ المنظور ؛ موضوع الجملة ؛
محمول الجملة ؛ مخزون الخبرة المعرفية ؛ الإلحاد ذات التوجه العلمي ؛ علم المعرفة
الإجتماعي ؛ علم اللغة الوظيفي ؛ المنظور المرتبط بعنصر موضوع الجملة.

1. Introduction

The Prague-School linguists are credited with the terms *Theme* and *Rheme*. In his second volume *Semantics*, John Lyons (1977) has emphasized such a historical fact, and elaborated on the philosophical sense in which those linguists used the two terms: whereas Theme is “the expression used by the speaker for what he announces as the topic of his utterance,” the Rheme refers to “the expression which contains the information which the speaker wishes to communicate” (p. 507). Thus, it can be argued, the rhematic element of an utterance or a sentence is often intended by the speaker/writer to communicate some meaning about the initial thematic element; and this is where the addressee should be involved as being *part of the communicative situation itself*. Therefore, as will be discussed later, the Rheme is hearer-oriented and the Theme is speaker-oriented. This, in turn, creates two forms of prominence: Theme-based “initial prominence” and Rheme-based “culminative prominence” (Halliday, 2004a, pp. 70-71). Interestingly, then, the Theme/Rheme structure can be probed in terms of the potential for setting up a discursive relationship between text producers and text consumers. That is exactly what the current context of research attempts to achieve.

The present study aims to reach new social-cognitive depths that underpin the use of Theme and Rheme in communicative situations. Those depths have been scarcely fathomed out in the realm of Systemic Functional Linguistics (SFL). By way of illustration, in the functional model of Halliday’s (1970, 1973, 1977, 1979) grammar, which has been pursued and developed by other systemic functional linguists (e.g. Kress, 1976; Hasan, 1978, 2009; Fawcett, 1981; Gregory, 1985, 2002; Martin, 1992; Eggins, 1994; Thompson, 1999, 2004), there has always been a focus on the key role played by the Theme/Rheme structure in fulfilling the textual metafunction of organizing the surface structure of discourse. Indeed, such a paradigmatically oriented focus has been part of the Hallidayan tradition of prioritizing the investigation of the socio-cultural meanings that shape the lexico-grammar of language (see Kress, 1989).

As will shortly be explained in the coming section on the context of present research problem, such a “paradigm” or “research tradition” – to use the terms of Kuhn (1962) or Laudan (1977), respectively – has consistently led to a serious neglect of the underlying cognitive structure that motivates both thematic and rhematic structure; it is a methodological neglect that dismisses as irrelevant the minds of both text producers and text receivers. As a result of dominantly neglecting the cognitive dimension of lexicogrammar, and drawing mainly on the socio-cultural aspect of language use, there has been a keen interest on the part of critical discourse analysts (CDA practitioners) to use the SFL model as a method of research (most notably, Fairclough, 1989, 1995, 2001, 2003; Fowler, 1991; Richardson, 2004; Young & Harrison, 2004). This can be explained in view of the fact that CDA has been greatly influenced by the social theories of Marxism, neo-Marxist members of the Frankfurt School (e.g. Adorno & Horkheimer), followed later by Jürgen Habermas, Foucault’s poststructuralist archaeology, and feminist critical analysis of language (van Dijk, 1993, p. 251; Locke, 2004, p. 26). However, to the rule of SFL-influenced CDA practitioners, there are remarkable exceptions. For example, not only has Teun van Dijk critiqued the SFL model (see the next section), but he has also developed his own sociocognitive approach for doing CDA on a variety of discourse topics, e.g. prejudice (1984), racism (1987, 1988, 1991, 1995, 2005, 2007, 2008a), and the Iraq debate in the British parliament (2009). One more example is Christopher Hart’s serious endeavours to interface CDA specifically with the conceptual-blending theory of metaphor (2008) and generally with cognitive science (2010), both with applications to the immigration discourse.

In the present study, the terms Theme and Rheme are taken beyond their SFL descriptive boundaries towards a rather deeper level of investigation, where the field of social cognition is being theoretically and methodologically incorporated into the SFL paradigm itself. So, rather than dismissing the Theme/Rheme structure from the process of interpreting discourse, the present research endeavours to investigate the potential social-cognitive basis of such a significant textual structure. This is feasible, I argue,

should we focus on the speaker/writer's conscious motivations for thematizing and rhematizing certain linguistic units. It is at this point where the theories of social cognition can be enlisted. Here, I introduce the two concepts of *thematic perspectivization* and *meta-schematic information* (see the section on Theoretical Framework below) whereby the social-cognitive constructs of *perspective* and *schema* are conflated with Theme and Rheme, respectively. These two concepts entail a synergetic method that combines both the SFL model and social cognition; and, equally importantly, there needs to be a practical medium where such a method can be empirically tested. But, why social cognition in particular?

The rationale behind choosing social cognition to be synergized with the SFL model can be ascribed to two methodological considerations. First, Callero (1991, p. 44) explains the theoretical significance of social cognition as a field that begins with the assumption that "cognition is central to understanding social action"; a process that "sees the actor as an 'information processor' within a social context." Thus conceived, social cognition departs from what Callero (1991, *ibid.*) calls "traditional psychological conceptualizations," where cognition is "defined by brain activity, memory structures, and associative learning." Second, on the level of functionally oriented critical linguistics and discourse analysis, van Dijk (1993, p. 251) rightly argues that there have been "major theoretical shortcomings" due to the unjustified "neglect of social cognitions," via which a detailed investigation of "the role of social representations in the minds of social actors" is possible.

In what follows I shall summarize the structure of the present paper. The first section introduces the context of current research problem. The second section deals with the theoretical framework suggested for augmenting the SFL grammatical model of Theme and Rheme, which is based on the two concepts of *thematic perspectivization* and *meta-schematic information*. After that, the methodology section presents both the research data for analysis as well as the rationale for its selection and the methodological procedure for analyzing research data. Regarding research data, I have chosen a text for applying this synergetic method. It is Richard

Dawkins' (2006) best-seller *The God Delusion*. The text typically represents a specific discourse type, that is, science-oriented discourse of atheism. The following section is dedicated to the data analysis. Last, I close with the final section on a discussion of the main findings and prospect for future research.

2. Context of the problem

Systemic Functional Linguistics (SFL), founded by the British linguist Michael Halliday, has been critiqued for its methodological inadequacy of explaining discourse context. Crucially, van Dijk (2008b, 2009) has raised two significant facets of criticism against Halliday's SFL model: first, the model has "too much linguistic ('lexico-syntactic') sentence grammar" (van Dijk 2008b, p. 29); second, it roundly dismisses any "cognitive accounts of discourse" (van Dijk 2009, p. 13). Thus, significant notions, reported by van Dijk and Kintsch (1983, p. 47), such as "schemata (Rumelhart & Ortony, 1977)," "frames (Minsky, 1975)," or "scripts (Schank & Abelson, 1977)," which are crucial to the interpretation of discourse, fail to appear as part of the analytic framework of the SFL model. Emphatically, van Dijk (2009, p. 13) attributes such a methodological failure to the historical fact that SFL was originally developed in the tradition of the British version of empirical linguistics initiated by the anthropologist Bronislaw Malinowski (1923) and the linguist John Firth (1957), who were more socially (than cognitively) oriented towards the study of language.

It is rather unfortunate that despite some few scholarly attempts, reported by Butler (2005, p. 5), at developing usefully synergetic approaches such as "Cognitive-Functional (Usage-Based) Linguistics" (Tomasello, 2003), there is still a wide gap between "functionalism" and "cognitivism" in many respects of their "foundational assumptions and emphases" (Butler 2005, p. 6). This may be reminiscent of Givón's (1979, p. 4; 1995, p. 17) strong critique of those functional approaches, such as the SFL model, on the grounds that, in investigating the morpho-syntactic structure of language, they refrain from taking "cognition," or "cognitive structure," seriously. Additionally, Givón (1995) openly

problematizes functionally oriented discourse studies which have the tendency of positing

a stark dichotomy between the study of the observable communicative transaction – the interaction and its textual by-product – and the study of the cognition that underlies the communicative transaction. Such a dichotomy is false and distortive, in that it disregards the fact that the ultimate object of our study is not the speech situation per se, but rather the speech situation as it is mentally represented. (p. 389)

Further, in his critique of functionalism as a linguistic school of thought, Seuren (2009, p. 38) laments the fact that functionalism has “a deeply ingrained attitude of resistance to formal theories of cognitive functioning.” He (ibid.) adds that functionalists’ opposition to such theories of cognitive functioning is “based more on prejudice and sociological pressure than on strictly academic argument.” Now, in order to get a wider context of the problem, let us have a closer look at Halliday’s SFL model with a special focus on its Theme/Rheme structural toolkits.

Indeed, Halliday’s SFL model is squarely focused on the textual dimension of discourse which derives from his philosophy of language as a *social-semiotic practice*, that is, language as “a set of socially-contextualized resources of behaviour, a ‘meaning potential’ that is related to situations of use” (Halliday, 1978, p. 34). To Halliday, the concept of “meaning potential” may be referred to as “a kind of ‘sociosemantics’,” whereby any text is determined by three significant sociolinguistic variables: a) “field of discourse,” denoting what the text is topically about; b) “mode of discourse,” referring to the personal relationships holding between the participants in text; c) “mode of discourse,” designating the role played by language itself in constructing the text (Halliday, 1989, p. 24). Correspondingly, as Halliday (1981, p. 138) explains, the English clause “embodies options of three kinds, experiential, interpersonal and intratextual, specifying relations among (respectively) elements of the speaker’s [or writer’s] experience, participants defined by roles in the speech [or writing] situation, and parts of the discourse.” Further, in turn, the systemic-functional

grammar of language, with clause as the basic unit of structure, realizes these three semantic functions: a) clause as a “representation” of human experience, b) clause as an “exchange,” that is, a “transaction between speaker and listener,” and c) clause as a “message,” or a “quantum of information” (Halliday, 1994, p. 34). This sketchy account of systemic-functional grammar merits some further details.

Halliday’s functional model of grammar is predicated on three dimensions of meaning (experiential, interpersonal, and textual) that are simultaneously captured in the clause structure of text. First, on the experiential level of meaning, the system of grammar that encodes human experience is technically labelled **Transitivity**, which contains reality-immanent (grammatically bounded) entities:

The bounded entities of reality enter into constituent structures with specific functions like Process, Actor, Goal, Extent, or Manner, offer a presentation of reality in terms of ‘things’ – doings by, and happenings to, persons and objects, in the environment of other persons and objects, with yet other persons and objects, and also times and places and so on, as attendant circumstances; and including various ‘matchings’ (facts and reports), which are complex things that have already been encoded in language and so acquired a status which enables them to participate in certain types of process as objects in their own right. (Halliday, 1979, pp. 65-66)

Second, on the interpersonal level of meaning, the grammar of **Mood** encodes “attitudinal meanings” as associated with “the speaker’s ongoing intrusion into the speech situation” as well as the “connotations” underlying “particular lexical items” (Halliday, 1979, pp. 66-67). Third, on the textual level, the grammar of **Theme**, or the theme system, enables both experiential and interpersonal meanings in a way that contributes to “the flow of discourse” (Halliday, 2004b, p. 64).

In no way should the foregoing account of experiential, interpersonal and textual modes of discourse be taken as sufficient coverage of the SFL model; rather, it sets out the basic components of Halliday’s systemic-functional grammar in a very brief outline. Since the main concern of the present context of research is the last

strand of textual meaning as realized by the Theme system, I shall ignore the other systems of Transitivity as well as Mood and their respective semantic scopes of experiential and interpersonal meanings. However, here, it should be made clear that the Theme system, alongside its corresponding textual meaning, is not the ultimate research target in itself. Indeed, the present research seeks to problematize the reliance on thematic structure alone as a decoder of the textual meaning of *scientific-atheistic discourse*, i.e. textual practices that substitute science for religion – the latter presented as being a contentious discourse topic. As will be demonstrated throughout the coming sections, a full picture necessitates the presence of one of the “interpretive repertoires,” as an available resource for “constructing versions of actions, cognitive processes and other phenomena” (Wetherell & Potter, 1988, p. 172). Here, I argue – and hope to prove by the end of this paper – that two significant interpretive repertoires, which may readily complement the Theme/Rheme analysis of discourse, are “perspectivization” and “schema” (see the coming section of Theoretical Framework). As such, the present study hypothesizes that *the linguistic analysis of thematic and rhematic patterns can be augmented by incorporating the social-cognitive analysis of perspectivization and meta-schematic information*.

Indeed, the above-formulated hypothesis should lead us to rethink the strictly textual metafunction of Theme/Rheme structure in the SFL model at both theoretical and analytical levels. Theoretically, there will be a discussion of the concepts of *thematic perspectivization* and *meta-schematic information*, for which I shall argue in the next section. Analytically, there will be an application of these two concepts to a textual practice that embodies a science-based discourse type of atheism, so that the theoretical premises underlying *thematic perspectivization* and *meta-schematic information* can be empirically proven (see the analysis section).

The two levels (theoretical and analytical) will address the following overarching question: How can social cognition augment the explanatory power of Theme/Rheme analysis at the macro-level of discourse analysis? Two sub-questions may arise out of this

overarching question: (1) How can topical Themes indicate discourse perspectives? (2) In what way can schematically relevant information about thematic perspectivization be linguistically cued in text? Answering these two sub-questions throughout the coming sections may help with the verification of the foregoing hypothesis, and offer some insights into how social cognition is not only reconcilable with the SFL model of Theme/Rheme structure, but is contributory to it at the macro-level of explaining (and, at many points, interpreting) discourse as well. Towards this end, the next section proposes the theoretical framework of thematic perspectivization and meta-schematic information.

3. Theoretical Framework

The present theoretical framework rests on the interplay of the two concepts of *thematic perspectivization* and *meta-schematic information*. The two concepts are composed of linguistic and cognitive elements. On the one hand, thematic perspectivization brings together the linguistic element of Theme and the cognitive construct of perspective. On the other hand, in a parallel fashion, meta-schematic information combines Rheme and schema. The first subsection below will introduce the functional-linguistic labels of Theme and Rheme, and then the following two subsections will deal with each of the two concepts (thematic perspectivization and meta-schematic information) as a way of offering a theoretical answer to the two research sub-questions above.

3.1 Theme and Rheme

Within the SFL model, a great number of systemic linguists, most notably Halliday (1970, 1973, 1976, 1979, 1981, 1994), argue that the organizational property of discourse is largely an outcome of the Theme/Rheme structure running through text (Berry, 1975, 1976; Fawcett, 1981; Martin, 1992, 2004; Eggins, 1994; Fries, 1995; Matthiessen, 1995; Thompson, 2004). Building upon the legacy of Prague-School linguistics, Halliday (1967, p. 212) defines Theme as “what is being talked about, the point of departure for the clause as a message.” Continuing with the same legacy, it naturally follows that the rest of the clause as a message is the “Rheme”; and this would in turn bring in the Theme/Rheme structure of the message encoded in

the clause. However, Halliday (1994, p. 53) offers the principle of “multiple Theme” which is summarized as follows: “the Theme extends from the beginning of the clause up to (and including) the first element that has a function in transitivity. This element is called the ‘topical Theme’; so we can say that the Theme of the clause consists of the topical Theme together with anything else that comes before it.” Indeed, Halliday (1994, p. 53) sets out the “typical ordering” of multiple Theme as “textual ^ interpersonal ^ experiential,” where the experiential (i.e. Process, Participant, or Circumstance) element comes last and any part following as falling within the Rheme. This has been demonstrated, in Figure 1 below, via Halliday’s well-known and -cited example “*well but then, Ann, surely wouldn’t the best idea be to join the group*”:

well	but	then	Ann	surely	wouldn’t	the best idea	be to join the group
continuative	structural	conjunctive	vocative	modal	finite	topical	
textual			interpersonal			experiential	
Theme							Rheme

Figure 1. Maximally extended Theme (adapted from Halliday [1994, p. 55])

One more significant dimension to the Theme/Rheme structure in text is “Theme markedness.” This is where thematic structure is interfaced with mood structure of the clause; and that should cast light on “unmarked Theme,” which is defined by Eggins (1994, p. 296) as a constituent that “conflates with the Mood structure constituent that typically occurs in the first position in clauses of that Mood clause,” viz. (i) Subject in a declarative clause, (ii) Finite in a yes/no interrogative, (iii) a WH-element in a content interrogative (iv) Predicator in an imperative. That may explain why Halliday refers to “marked Theme” in a declarative clause as “something other than the Subject”; and according to him, “the most usual form of marked Theme is an adverbial group, e.g. *today, suddenly, somewhat distractedly*, or prepositional phrase, e.g. *at night, in the corner, without much hope*” (Halliday 1994, p. 44). Even more thematically marked, as Halliday ((1994, *ibid.*) argues, is “thematic Complement” as being “explicitly foregrounded as the Theme of the

clause”; for example, “*nature in nature I love, this responsibility in this responsibility we accept wholly.*”

Further, Thompson (2004, p. 154) argues that in case there is a sentence with more than one clause conjoined, the dependent clause (if preceding the independent) should practically be treated as “the Theme for the whole clause complex.” However, following Fries’ (1994) understanding of the “T-unit” (a sentence having more than one main clause), Thompson (2004) explains that in case there is a sentence with more than one independent clause, “there will be two T-units, each with its own Theme” (p. 156).

Another equally significant aspect of Theme/Rheme clause-structure is the potentially corresponding Given/New information structure. Speaking of “information structure,” Halliday (1970/2002, p. 192; emphasis in original) explains: “Thematic structure is closely linked to another aspect of the textual organization of language, which we may call *information structure*.” Crucially, Halliday (ibid.) continues to explain, English information structure is “expressed by intonation,” with each tone group representing “what the speaker decides to make into one unit of information.” As such, as Halliday (1979, p. 68) points out, in terms of clause and information structures (or rather collectively, message structure), there seem to be two peaks of “prominence,” respectively: a) Theme-bound prominence at the beginning of clause structure (“speaker-oriented”), and b) New-bound prominence or “tonic nucleus” at the end of information structure (“hearer-oriented”).

Thus, significantly, Halliday’s foregoing arguments demonstrate a highly conscious selection by the speaker/writer who would strategically opt for some initial-culminative prominence at discourse level. Indeed, here, I advisedly use the terms ‘initial’ and ‘culminative’ in qualifying the concept of *prominence* as Halliday (2004a) himself alludes to such a discursively strategic selection of Theme and New in terms of “initial prominence” and “culminative prominence”:

The initial prominence, that of Theme, is the **speaker/writer’s angle on the message**: this is the point from which I am taking off. The culminative prominence, that of New, is still

of course assigned by the speaker/writer; but it carries a signal to the listener/reader: this is what you are to attend to.

(Halliday, 2004a, pp. 70-71; my emphasis)

Based on Halliday's above argument, two points can be made. First, by discursively choosing the constituents carrying initial and culminative aspects of prominence, there seems to be a transactional process wherein both the speaker/writer and listener/reader are dynamically involved as participants in the discourse act. Second, more specifically, initial (thematic) prominence reflects what I have emphasized in Halliday's quote above as the "speaker/writer's angle on the message," where the text producer may bring in their own perspective in the same discourse act. At this point, considering the possibility of fusing thematic selections in text and authorial perspectives in discourse, one may come up with the concept of thematic perspectivization. This is the focus of the next subsection.

3.2 Thematic perspectivization

Prior to establishing the theoretical concept of *thematic perspectivization*, I shall cast light on the potential interface between the two concepts of *perspective* and *Theme*. Let us begin by defining perspective and explaining the discursive process of perspectivization as a whole, then set out its close bearings on thematic choices in text.

Perspective is claimed to be a "topic of analysis" in various fields, including "social psychology, philosophy, psychology, poetics, the arts, and linguistics" (Sandig, 1996; reported in Ensink & Sauer, 2003, p. 9). More narrowly, within the realm of discourse analysis, perspective, as Ensink and Sauer (2003) argue, denotes "the way people imply a certain way of looking at things when communicating about them" (p. 9); and, thus, perspective is conceptually akin to Simpson's (1993) concept of "point of view." The latter reflects the subjective dimension of discourse as an act of communication.

At this point, one may assume that perspective is a concept that is intrinsic to the communicative nature of discourse. Again, in this regard, Ensink and Sauer (2003, p. 10) introduce a list of five

principles, identified by Sandig (1996), to account for the discursive status of perspective as: i) being “pervasive in discourse,” ii) presupposing “a perspectivising person (normally the speaker) and a perspectivised object (what is talked or written about),” iii) normally standing as one’s own or another’s (the normal case is “one’s own perspective, but possibly adopting a ‘foreign’ perspective”), iv) typically featuring as a certain (or a foreign) position taken by the speaker/writer, and v) not being “constant or predetermined” as it comes out of “choice.”

Indeed, the idea of discursive perspective is grounded in the seminal work of the French philosopher Michel Pêcheux *Language, Semantics and Ideology* (1975, trans. 1982) which delineates the interrelationship between discourse and speaker/writer’s ideological position. To Pêcheux (1982, p. 111), discourses and their antagonistic meanings arise from a struggle of clashing “ideological positions.” This should draw attention to the inseparability of discourse and perspective, where the former potentially reflects a struggle over (de-) legitimizing the latter. Hence, there may emerge what can be called a discourse-perspective dynamics of power that could enact *perspectivization*: a discursive process which, in the tradition of Sandig (1996), presupposes the material existence of a “perspectivising person” (*perspectivizer*) and a “perspectivised object”; and, I may add, *perspectivizee* or the person or audience upon whom the perspectivizer intends to have some perlocutionary effect. It can be said that such a tripartite classification of perspectivization can tacitly be traced in Graumann and Kallmeyer’s (2002) conceptualization of “perspective” and “viewpoint”: “With ‘perspective’ and ‘viewpoint’ we refer to a position from which a person or a group view something (**things, persons or events**) and communicate their views” (Graumann & Kallmeyer, 2002, p. 1; my emphasis).

However, it should be noted that perspective can be more palpable if we speak in terms of *a discourse* or *discourses* in the concrete sense of the word rather than in terms of discourse as an abstract concept. Bloor and Bloor (2007) emphasize the difference between the two senses, the abstract versus the concrete. According to them, the term “discourse” can be used either to “refer to the

general communication that takes place in specific institutional contexts” (such as “*the discourse of science, legal discourse, and so on*”), or alternatively in the sense of “*a discourse,*” to “mean a particular text (written or spoken), usually a fairly long treatment of a subject, such as a lecture, sermon or treatise” (Bloor & Bloor, 2007, p. 7; italics in original). It is the latter concrete sense of discourse that strongly reflects a certain perspective. That is why, in proposing his dialectical-relational approach to critical discourse analysis (CDA), Fairclough (2009) has consciously chosen to use the term “discourses,” and defined it as such: “semiotic ways of construing aspects of the world (physical, social or mental) which can generally be identified with different positions or **perspectives** of different groups of social actors” (p. 164, my emphasis). Here, it is obvious that perspectives can be semiotically embodied via discourses; and of course such a semiotic embodiment often takes the material form of language with its lexico-grammatical resources.

Indeed, viewing the structural element of Theme in light of discourses (in the concrete sense of the word) can bring in the socio-pragmatic function of speaker/writer’s thematic choices. Again, this should combine all three concepts of “discourse,” “perspective,” and “sentence.” As Sanders and Redeker (1996, p. 290) argue, there must be a “discourse perspective,” which purports to be “a particular vantage point,” or rather, viewpoint “in discourse”; and with this in mind, they reached the significant conclusion that “no sentence in any discourse is free from a certain degree of **perspectivization**” (ibid., my emphasis). Building on the foregoing conclusion, one can assume that in any discourse type there must be a chain of ‘sentential perspectives’ that may well reveal the overall discursive perspectivization.

Nevertheless, such a chain of sentential perspectives should be realized by (or, more technically, encoded in) the internal structure of discourse sentences. Of course, when it comes to realizing the intratextual function of discourse, the Theme/Rheme clause structure is the typical medium for such a realization. More specifically, the different thematic choices in the internal structure of different discourses can be said to reflect different perspectives: “different

thematic choices express different perspectives” (Lee, 1992, p. 94). As such, thematic patterns are pragmatically relevant; indeed, this warrants further elaboration.

Among the systemic linguists who are sensitive to the pragmatic function of Theme in discourse is P. H. Fries (1983, 1994, 1995, 2002). To Fries, not only does Theme have an organizational function in discourse, but it also has an orientational function, whereby Theme “tells the reader how to understand the news conveyed by the clause” (Fries, 1994, p. 234); and, further, it “orients the listener/reader to the message that is about to be perceived and provides a framework for the interpretation of that message” (Fries, 1995, p. 318). Obviously, according to Fries’ arguments, the Theme choices made by a speaker/writer can pragmatically set a framework for the recipient’s interpretation of the messages intended to be conveyed; it is this framework-setting, evoked by Theme selections, which may well be a significant clue to the discursive existence of different kinds of perspective such as author-object perspective or author-reader perspective.

A typical case in point, here, is Busch-Lauer’s study which investigates perspective as a discursive feature of medical correspondence in a corpus of 50 texts (25 English and 25 German) that fall within the genre of letters-to-the-editor; the texts were randomly selected from medical quality journals. Indeed this type of genre was found by Busch-Lauer to be rich in perspectives; her results showed three basic types of author perspective: “(1) author-research results; (2) author-readers and (3) author-science” (Busch-Lauer, 2003, p. 212). Of course, Busch-Lauer has made use of linguistic devices (e.g., pronominalization, attribution, and conjunctions) other than Theme patterns, but still the point of perspective remains open for further investigation of linguistic research. Suffice it to follow Ghadessy’s argument that reports Fries (1983) as introducing the notion of “method of development”: “Thematic content correlates with the method of development of a text (and the nature of the text)” (Fries, 1983, p. 119; cited in Ghadessy, 1999, p. 131); and, Ghadessy (1999) explains, method of development “deals with the lexico-semantic content of Themes” (p. 131). Thus, it can be said that the systematic choices of Theme

contribute to the overall organization of the discourse topics residing in text.

Back to Busch-Lauer's research, Ensink and Sauer (2003) comment that what is striking about Busch-Lauer's results is the discursively enabled element of cross-cultural perspectivization in English and German. According to them (2003, p. 17), Busch-Lauer pays close attention to "the relation between a perspectivising person (normally the writer of the letter) and a perspectivised object (in this case, the previous publication on which the letter wishes to comment)."

Actually, the present context of research argues for the chain of thematic choices as being a linguistic medium wherein perspectivization can easily and revealingly be realized. I have a theoretical-analytical predilection to use the concept *thematic perspectivization* as a summary term for this process. Here, perspectivization, as defined earlier in this subsection, is first and foremost a discursive process with three basic components: perspectivizer, perspectivized, and perspectivizee. The textual role played by Theme here is the linguistic identification of any of those components and the discursive impact ensuing. At this point, let us assume that, in order to explain the cognitive properties of thematic perspectivization, there should be a proper analysis of the different "schemas" underlying perspectivizer, perspectivizee, and perspectivized. These schemas, although being "knowledge structures" (Rumelhart & Ortony, 1977), can be linguistically marked or cued in a way that facilitates schema recognition at the textual level; and, thereby, helps in explaining the process of Theme-based perspectivization at discourse level. Here, as will shortly be argued in the coming subsection, I maintain that such linguistic marking (or cueing) can be detected within the scope of Rheme, which often encompasses the focus of the message; and I choose to technically call this process *meta-schematic information*.

3.3 Meta-schematic information

Frederic Bartlett (1932) is argued to have laid the foundation for a schema theory with the "key assumption of previous knowledge

affecting the processing of new stimuli” (Carbon & Albrecht, 2012, p. 2258). Bartlett’s interest was in the role played by prior knowledge in the interpretation of stories. This may explain why the concept “knowledge” appeared as a key term in Rumelhart’s (1980) famous definition of the notion of schemas, or as he prefers to call it, “*schemata*”:

[S]chemata can represent knowledge at all levels from ideologies and cultural truths to knowledge about the meaning of a particular word, to knowledge about what patterns of excitations are associated with what letters of the alphabet. We have schemata to represent all levels of our experience, at all levels of abstraction. Finally, **our schemata are our knowledge**. All of our generic knowledge is embedded in schemata. (p. 41)

However, as Gregory (2002) argues, it should be noted that such knowledge, be it implicit or explicit, is shared by the members of a social group “by way of their discourses”; and therefore “the *pattern* of their knowledge is observable and so describable, and this caters too for what is pertinent about an individual’s knowledge” (Gregory, 2002, p. 16).

Another important aspect of schema-based knowledge is discussed by van Dijk and Kintsch (1983, p. 47), that is, such knowledge represents “descriptions, not definitions”; and they (ibid., pp. 47-48) set the illustrative example of “‘bus’ schema,” which involves “information that is normally valid, plus perhaps some specific details that apply to particular buses, but there is no specification of necessary and sufficient conditions.” Interestingly, this should draw our attention to the fact that the nature of schema is more dynamic than static. According to Tannen and Wallat (2006/1987), this fact has been stressed in the classical works of Bartlett (1932) and Frake (1977). Building upon such a fact, Tannen and Wallat have reached an important conclusion about the kind of “expectations” associated with schemas: “expectations about objects, people, settings, ways to interact, and anything else in the world are continually checked against experience and revised” (Tannen & Wallat, 2006, p. 335).

At this point of proposing the present theoretical framework, I strictly follow Pennington's (2000, p. 69) view of schemas as *certainly* facilitating and *probably* determining the "encoding of new information." Pennington (ibid., pp. 69-70) explains this view by way of illustrating how schemas "influence what you pay attention to and what to ignore"; and argues that "usually information consistent with a schema is stored in memory and inconsistent information ignored or forgotten." It is important to juxtapose the functional notion of Rheme with Pennington's view that schemas may determine the "encoding of new information," and then recall the linguistic identity of Rheme as the typical scope wherein new information falls; this contrasts with the Theme as being typically associated with the given information. This is known to be the principle of "information structure":

[O]ne information unit will be mapped onto one clause – and, within the information unit, the Given will precede the New, so that, in the "unmarked" case, the Theme of a clause is located within the Given portion, and the New, that which is under focus of attention, within the Rheme. (Halliday, 2009, p. 168)

Thus, it follows from the juxtaposition referred to earlier that ("in the 'unmarked' case") the Rheme may include the New information that is determined, or reflected, by the schema. Also, the Rheme-based new information may be a linguistic marker or cue that indexes the schema associated with the Theme-based perspectivizer, perspectivizee or perspectivized; hence, the potential for meta-schematic information within the scope of Rheme. Now, let us chart the different types of schema and find out which schema type would be compatible with which component of thematic perspectivization.

Social psychologists offer many classifications of schemas. Pennington (2000) presents the main ones, and explains them in the following diagram in Figure 2:

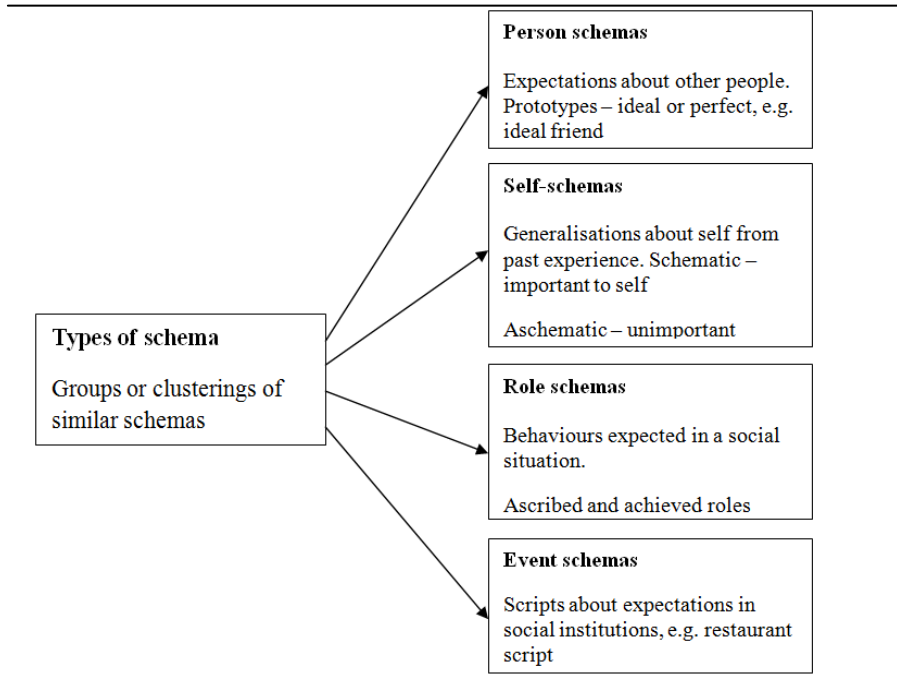


Figure 2. Four types of schema most commonly identified by social psychologists (adapted from Pennington [2000, p. 75])

Among the four main schemas presented by Pennington above, I shall be concerned with the first three that seem to be functionally compatible with both the three components of thematic perspectivization (discussed earlier in the previous subsection) and the present principle of meta-schematic information. Let us offer a presentation of such functional compatibility in Table 1 below:

Table 1. Compatibility of schema, perspectivization and meta-schematic information

Schema type	Perspectivization	Thematic realization	Meta-schematic information
Person schema	Perspectivizee	Human participants	Expectations about other people – prototypes
Self-schema	Perspectivizer	Authorial self-reference	Generalisations about self from past experience
Role schema	Perspectivized	Acts, events, or circumstantial roles	Behaviours expected in a social situation.

Examining the table above may give rise to two observations. First, there is a potential correlation between types of schemas and thematic-perspectivization components, each in its proper instantiation in text, viz. its topical status in text as participant or circumstantial. Second, there is some conceivably relevant information about each type of schema, which, in the final analysis, constitutes what I have technically labelled meta-schematic information. Again, the typical locus of such relevant information about schema falls within the element Rheme as it purports to have the New about the Given (information), with the latter being typically associated with the Theme (Halliday, 2004b, p. 580).

On the level of written texts, we can further enhance the potential for schema-Rheme association by means of Fries' (2002) argument about the "N-Rheme":

I wish to explore the notion that writers use position at the end of the clause to indicate the newsworthy information to their readers, and that they use the beginnings of their clauses to orient their readers to the message which will come in the rest of the clause [...]. Because of its association with the New, the **N-Rheme** typically expresses the core of the newsworthy part of the clause, that is, the part of the clause that the writer wants the reader to remember. As a result we should expect **the content of the N-Rheme to correlate with the goals of the text as a whole.** (pp. 125-126, my emphasis)

Thus, it can be said that the N-Rheme element can correlate with pertinent information or information that is highly relevant to the writer's intended message, and thus this information can be hardly separated from the knowledge schema possessed by the writer.

Now, before coming to the application of the present theoretical framework to the research data, in the next section I shall outline the type of research data and methodological procedure of application in the present study.

4. Methodology

4.1 Data

The data used for analysis is Richard Dawkins' polemical book *The God Delusion*, first published in 2006; and it typically represents the author's worldview – science-based atheism. Dawkins is a world-known evolutionary biologist and atheist who holds an absolute belief in Darwinism and who categorically despises religion-bound creationism.

Analysis will be restricted to the introductory part of Dawkins' book, that is, its preface. The rationale for this restriction can be ascribed to three considerations that are all motivated by the research point. First, introductory parts of books tend to be characteristically revealing of authors' perspectives towards their consciously chosen topics. Second, those introductory parts generally tend to be of some thematic value; that is, they offer a broad outline or overview of the main themes running through the book; and thus we may expect some interesting presentation of Theme/Rheme structures as well as some personal reflection on the book's content. Third, they are typically schematic in that they often involve information that is highly relevant to the previous author- and other-specific experiences in life.

4.2 Procedure & research questions

The procedure followed in this study corresponds to the theoretical framework offered in the foregoing section, where the two important concepts of thematic perspectivization and meta-schematic information have been explained. Thus, in the book's preface, I go procedurally from identifying topical Themes, alongside the status of their perspectivization in text, to the Rheme-bound New information that is relevant to the schema potentially underlying these Themes. This analytic shift is crucial for the demonstration of the principle of meta-schematic information and its relevance to the overall thematic perspectivization adopted by the author.

The present study addresses one overarching question: How can social cognition augment the explanatory power of Theme/Rheme analysis at the macro-level of discourse analysis? Towards answering this overarching question, two complementary

sub-questions are posed: (1) How can topical Themes indicate discourse perspectives? (2) In what way can schematically relevant information about Thematic Perspectivization be linguistically cued in text?

4.3 Analysis

Richard Dawkins' preface to *The God Delusion* opens with a personal narrative about his wife:

Extract 1: As a child, my wife hated her school and wished she could leave. Years later, when she was in her twenties, she disclosed this unhappy fact to her parents, and her mother was aghast: 'But darling, why didn't you come to us and tell us?' Lalla's reply is my text for today: 'But I didn't know I could'.

I didn't know I could.

As shown in Extract 1 above, Dawkins' personal narrative about his wife is composed of two paragraphs, of which the second is notably short and partially reiterative of her reply "... I didn't know I could." Let us begin our thematic-perspective analysis from the clausal refrain *I didn't know I could*. The first thing to observe here is the Theme 'I' which bears the author's (Dawkins') direct reference to his wife, Lalla, at a time when she was a child. So, the child Lalla did not know that she could tell her parents that she had hated her school and wished she could leave it. At this point, it is important to take the present Theme 'I' as a perspectivizee; that is, as a human participant in the author's – the perspectivizer's – narrative discourse. To Dawkins, Lalla (as a perspectivizee) sets the framework of an ignorant child, who fails to know then of her ability to tell about her feeling of hatred towards the school and her desire to quit such a hateful object. Now, the Theme 'I' is presented with a defected person schema: a child with an apparently limited knowledge of a particular given situation. Such a defected schema is made explicit in the information carried by the Rheme *didn't know I could*, which negates Lalla's conscious knowledge about the world of her parents in terms of what their actions and reactions could be if she voiced any complaint about her school. Obviously, Lalla's

perspective then was guised and consciously concealed from her parents until she reached her twenties and began to speak up. This may be called a perspective shift from childhood to adulthood. Such a temporal perspective shift is demonstrated to be thematic across the first two sentences in paragraph 1: “As a child, my wife hated her school and wished she could leave. Years later, when she was in her twenties, she disclosed this unhappy fact to her parents, and her mother was aghast: ‘But darling, why didn’t you come to us and tell us?’.”

The thematic analysis of the two sentences can be diagrammatically presented in Table 2 below:

Table 2. Thematic perspective shift and its meta-schematic information

	Topical Theme	Rheme/Meta-schematic information	Schema type
Sentence 1	As a child	my wife ... leave.	Role schema
Sentence 2	Years later = when she was in her twenties	she ... her mother was aghast: ‘But darling ... us?’	

The two sentences in Table 2 manifest two circumstantial Themes that denote the different stages of the narrative about the perspectivizee Lalla: the first thematizes Lalla as a child and the second thematizes her as a twenty-year-old. Note that the appositive subordinate clause *when she was in her twenties* has the same circumstantial meaning of time. Here, both Themes are perspectivized events in the life of Lalla, i.e. *perspectivized*, and each reflects a distinct role schema in her life. The two role schemas are indexed by the new information encoded in the Rhemes *my wife ... leave* and *she ... her mother was aghast: ‘But darling ... us?’*, respectively. These role schemas can be read as follows: the child Lalla was ignorant of the possibility of voicing what she really felt about school, and the adult Lalla, having had a broader experience of life, began to divulge the long-suppressed feelings of childhood. Here the social roles associated with Lalla’s parents are different: on one occasion the parents were detached from Lalla’s communicative environment; on another occasion they were brought into Lalla’s realm of communication.

Indeed, sentence 2 has a compound structure with the coordinator *and*, which introduces the independent clause *her mother was aghast*: ‘*But darling, why didn’t you come to us and tell us?*’. Again, here, the Theme *her mother* can stand as a perspectivizee in that it is a human participant in the author’s narrative about his wife. At this point of the narrative, a special kind of motherly person schema may emerge:

Table 3. Lalla’s motherly person schema

Topical Theme	Rheme/Meta-schematic information	Schema type
her mother	was aghast: ‘But darling ... us?’	Person schema

Lalla’s mother seems to have been shocked at her daughter’s disclosed secret. This can be explained in view of the expectation that a mother is supposed to be the closest to her children; but in the present case, Lalla proved otherwise – running counter to the motherly schema. The rhematic information, exhibited in Table 3 above, indicates the person schema of a frustrated parent who is puzzled by the unfulfilled role schema of the daughter Lalla; and the mother’s person schema is instantiated in the (Rheme-based) query-form embedded clause ‘*But darling, why didn’t you come to us and tell us?*’.

Moving on to Dawkins’ next paragraph, we can see the Theme ‘I’ as a perspectivizer, with a self-schema, i.e. the author places himself in a textual position where he sets the frame for the coming New information:

Extract 2: I suspect – well, I am sure – that there are lots of people out there who have been brought up in some religion or other, are unhappy in it, don’t believe it, or are worried about the evils that are done in its name.

In the above extract, Dawkins thematizes himself by the self-referential pronoun ‘I’, and then proceeds with rhematic information which significantly modalizes the Theme by using the two epistemic-modal expressions *suspect* and *am sure* in a way that constructs the author as being confident about his message – a confident perspectivizer, so to speak. Crucially, here, the

perspectivizer ‘I’ presents himself with a self-schema that is based on the narrative he recounted in the opening paragraph; it is his wife’s person schema which she gained from her own experience in childhood. By analogy, the author projects such a person schema onto lots of religious people who are “unhappy” in their religion, “don’t believe in it, or are worried about the evils that are done in its name.” It is only at this point in the preface that the anti-religious self-schema of the Theme ‘I’ is strongly featured.

Continuing with the same paragraph, Dawkins’ perspective shifts to the thematic perspectivizee ‘you’, which is packaged into the subordinate conditional clause of the significant sentence *If you are one of them, this book is for you*. We can possibly consider the whole subordinate if-clause a topical Theme with the circumstantial meaning of condition; or, alternatively, we may treat each clause as having one independent Theme: subordinate clause having the Theme ‘you’, and the main clause having ‘this book’. In this instance, I would favour the latter version of analysis where there emerge the perspectivizee ‘you’ and the perspectivized ‘this book’:

Table 4. Perspectivizee ‘you’ and perspectivized ‘this book’

	Topical Theme	Rheme/Meta-schematic information	Schema type
Clause 1	you	are one of them ...	Person schema
Clause 2	this book	is for you.	Role schema

Here, it can be argued that the author hopes the second Theme (‘this book’) to impact on the first Theme (‘you’) in a way that changes the perspective of the religious *you*. This can be explained in view of the sentence clause-structure itself in terms of the nucleus information carried by the main clause and the satellite information in the *if*-clause. No doubt the Theme ‘this book’ holds the author’s worldview as a pronounced atheist with the role schema of evolutionary biology and anti-creationism; and thus we may expect the Theme ‘this book’ to evoke the science-against-religion discourse. Crucially, the Rheme of clause 1 in Table 4 above indicates the person schema of all religious people. Notice that, in using the rhematic information ‘one of them’, Dawkins presupposes the categorization of a whole group that bear one person schema, which in turn shapes the worldview of those religious people.

The fifth paragraph in Dawkins' preface offers a typical case of thematic progression that is technically labelled "continuous progression," where the "constant Theme" (Downing & Locke, 2006, pp. 247-248) 'Imagine' controls the flow of a whole chain of Rhemes as Extract 3 demonstrates below:

Extract 3: Imagine a world with no religion. Imagine no suicide bombers, no 9/11, no 7/7, no Crusades, no witch-hunts, no Gunpowder Plot, no Indian partition, no Israeli/Palestinian wars, no Serb/Croat/ Muslim massacres, no persecution of Jews as 'Christ-killers', no Northern Ireland troubles, no 'honour killings', no shiny-suited bouffant-haired televangelists fleecing gullible people of their money ('God wants you to give till it hurts'). Imagine no Taliban to blow up ancient statutes, no public beheadings of blasphemers, no flogging of female skin for the crime of showing an inch of it.

Obviously, the extract above shows what Eggins (1994, p. 303) describes as "Theme re-iteration," which is regarded as "one basic way to keep a text focused (i.e. cohesive)." According to Eggins, then, 'Imagine' can be said to stand as a re-iterated Theme which is intended by the author (Dawkins) to keep the above text abstract focused on a certain thematic point. However, in the above extract, there is more than that, as the imperative verb *Imagine* implies the existence of the generic *you* which is the focus of address; and, as such, the re-iterated Theme should be 'You imagine' with the target reader as a perspectivizee. Indeed, the present perspectivizee is called upon to share the author's perspective on the tragic events associated with religions of all sorts. These tragic events constitute the author's self-schema about (fanatic) religious people, whose actions are marked by violent actions. The whole chain of event-based Rhemes is the practical manifestations of such a schema. With this in mind, the implied thematic 'You' evokes a discourse of a religion-less world, i.e. one that departs from Dawkins' terrible self-schema about religion.

A fairly copious part of Dawkins' preface is thematically oriented towards the chapterization of his book. Although this comes as no surprise since it is typical of the genre of prefaces, there is a

special kind of thematic structure used by the author in presenting the chapters of his book. Here, the subordinating conditional clauses are textually structured as Themes that set the framework of talking about the book chapters; and thus, viewed as information structure, they are presented as the New information, and the conditional clauses as the Given. In this respect, I shall focus on four prominent cases. The first two cases, in Extract 4 below, are closely related, and so I shall bring them together:

Extract 4: **Perhaps** you feel that agnosticism is a reasonable position, but that atheism is just as dogmatic as religious belief? If so, I hope Chapter 2 will change your mind, by persuading you that ‘the God Hypothesis’ is a scientific hypothesis about the universe [...]. **Perhaps** you have been taught that philosophers and theologians have put forward good reasons to believe in God. If you think that, you might enjoy Chapter 3 on ‘Arguments for God’s existence’ – the arguments turn out to be spectacularly weak. [...]. **Maybe** you think it is obvious that God must exist, for how else could the world have come into being? How else could there be a life ... with every species looking uncannily as though it had been ‘designed’? If your thoughts run along those lines, I hope you will gain enlightenment from Chapter 4 on ‘Why there almost certainly is no God?’. (My emphasis)

In the above extract, there are three instances of thematic conditional clauses: the first *If so* is reduced in form with the substitutive adverbial *so*, which takes the place of the whole preceding question; and the second is *If you think that*; and the third is *If your thoughts run along those lines*. The three Themes can be said to be perspectivized hypotheses on the reader’s part. Here, Dawkins argumentatively creates hypothetical scenarios of what is commonly and generally believed by his target (religious) readers, and refers those readers to Chapters 2, 3, and 4 in his book for the sake of testing their beliefs. To explain the nature of such thematized hypotheses or beliefs, which are perspectivized by Dawkins, a schema analysis can be quite helpful. Indeed, the three forms of beliefs (“that agnosticism is a reasonable position, but that atheism is just as dogmatic as religious belief,” “that philosophers and

theologians have put forward good reasons to believe in God,” and “that God must exist, for how else could the world have come into being?”) are knowledge schemas that have been made explicit by Dawkins within the hypothetical framework of *if*-clauses. The author is keen on getting the readers to know that he is fully aware of the religious schemas established in the back of their minds, and he is willing to confront those schemas with the chapters referred to in his book. Note, here, the correspondence between the Theme-Given and the Rheme-New: whereas the religious schemas made explicit in the Theme are relegated to the Given, the author’s scientific schema is assigned the New-information unit. Table 5 below offers a diagrammatic presentation of the whole picture of Theme/Rheme and schema analysis:

Table 5. Thematic structure of presenting Dawkins’ book chapters

		Schema	Discourse type
Theme/Given	<ol style="list-style-type: none"> 1) If so 2) If you think that 3) If your thoughts run along those lines 	Person-schema	doubt
Rheme/New	<ol style="list-style-type: none"> 1) I hope <u>Chapter 2</u> will change your mind [...]. 2) you might enjoy <u>Chapter 3</u> on ‘Arguments for God’s existence’ [...]. 3) I hope you will gain enlightenment from <u>Chapter 4</u> [...]. 	Self-schema	enlightenment

Probably, in his preface, Dawkins features a clash of perspectives across the Theme/Rheme structure and its corresponding mismatch of religious and scientific schemas. At this point, it is important to indicate the perspectivizer’s (author’s) self-schema of evolutionary biology, which derives from the teachings of Darwin, and which flatly denies the creationist person schema that finds its foundations in theology and the theory of universe grand-creator – God. Significantly, the thematized beliefs of Dawkins’ readers are perspectivized in the discourse mode of doubt: the author opts for the hypothetical *if*-clause Themes so that he brings about an audience perspective-shift from the state of certitude to a state of

scepticism. Notably, the sceptical discourse mode underlying the perspectivized religious beliefs of the author’s religious readers has been staged through the recurrent opening modal adverbs *Perhaps* and *Maybe* in all three instances above. Further, on the level of meta-schema information, the author draws on a scientific self-schema of enlightenment, which is indexed as the New information falling within the Rheme structure. This has been explicitly made as Dawkins, in reference to Chapter 4, used the term “enlightenment,” whose implications are strongly evocative of the demise of the religiosity of the medieval age.

On a thematic level, the opening statement of Paragraph 12 demonstrates for the first time the author’s direct personal involvement in the preface:

Extract 5: I need to say something to American readers in particular at this point, for the religiosity of today’s America is something truly remarkable.

In Extract 5 above, the author chooses to thematize himself and present the topical Theme ‘I’ as a perspectivizer in the first clause in the compound sentence; and in the second coordinated clause he thematizes the nominal group *the religiosity of today’s America* which is presented as a perspectivized phenomenon. Table 6 below summarizes the two topical Themes and their perspectivization at this point of Dawkins’ discourse:

Table 6. Perspectivization of topical Themes

	Topical Theme	Perspectivization	Rheme/Meta-schematic information	Schema type
Clause 1	I	perspectivizer	need to say ... point	Self-schema
Clause 2	the religiosity of today’s America	perspectivized	is something truly remarkable.	Role schema

Here, let us start from Dawkins as a perspectivizer whose scientific self-schema is well-known to his readers: a full-dress atheist with specialized knowledge in evolutionary biology and an empirically scientific approach towards what qualifies as a universal truth. Such a scientific self-schema is packaged in the Rheme structure as a moral responsibility – instantiated in the deontic modal verb *need* –

towards American readers as a target audience. Also, on the other hand, the second topical Theme ('the religiosity of today's America') is a cultural phenomenon that has been perspectivized by the author to be "truly remarkable," based on the author's scientific and atheistic self-schema of science. Notably, the perspectivized element *the religiosity of today's America* can be associated with a role schema whose effect is rhematically "remarkable," according to Dawkins, in influencing American readers as well as many other religious people worldwide.

Obviously, here, there emerges a grotesque mismatch of schemas: To the perspectivizer, the perspectivized Theme can be explained against the role schema of dogmatic, non-scientific belief of pure creationism, which supports a blind faith in God. Accordingly, it can be said that while the first topical Theme 'I' is presented as speaking through a rational scientific discourse with an empirical view of life, the second topical Theme 'the religiosity of today's America' is constructed as a primitive practice of dogmatic belief in the unknown – God. Note here the dynamic contrast of discourses between science and God in Dawkins' thematic choices, which corresponds to a mismatch between the self-schema of a scientist and the role schema of religion as a package of *remarkably* inexplicable beliefs and values.

This all makes a conflicting thematic perspectivization which can be said to reach its authorial climax when Dawkins has openly announced the ultimate aim and hope of his book in Paragraph 16 as exhibited in Extract 6 below:

Extract 6: If this book works as I intend, religious readers who open it will be atheists when they put it down. What presumptuous optimism! Of course, dyed-in-the-wool faith-heads are immune to argument, their resistance built up over years of childhood indoctrination using methods that took centuries to mature [...].

In order to analyse the thematic perspectivization running through the text in Extract 6 above, I shall pay attention to all topical Themes, be they part of main or subordinate clauses, and for the sake of convenience I have already underlined the Themes at stake. Now, let us summarize the perspectivization of those underlined Themes

and their corresponding meta-schematic information, then set out to analyse each case in terms of its schema type:

Table 7. Thematic perspectivization & meta-schematic information in setting the aim of Dawkins’ book

Topical Theme	Perspectivization	Meta-schematic information
this book	perspectivized	works
I	perspectivizer	intend
religious readers (who open it)	perspectivizee	will be atheists
they	perspectivizee	put it down
dyed-in-the-wool faith-heads	perspectivizee	are immune to argument
their resistance	perspectivized	built up over years of childhood indoctrination using methods that took centuries to mature ...

As shown in Table 7 above, the first two topical Themes in Extract 6 are the perspectivized ‘this book’ and the perspectivizer ‘I’, which are almost identical in terms of their schemas (role schema plus self-schema); Dawkins’ book is purported to be a representation of his own atheistic schema, and this is even clear in the book’s title ‘The God Delusion’. The Rheme structures of both Themes are the verbal elements ‘works’ and ‘intend’, and, respectively, they index the role schema of the perspectivized book (by Dawkins) as actively motivating readers to accept the author’s cognitive suasion or intention. Indeed, here it can be said that there is one essential discourse in which the two Themes are used, that is, the Science-versus-God discourse. Actually, the perspectivizing author, thematically represented as ‘I’, perspectivizes his book, thematically represented as ‘this book’, to be a scientific argument against God. There is a whole chapter in Dawkins’ book – Chapter 2 – with the title ‘The God Hypothesis’, where he attempts to *scientify* the concept of God itself; and this can be a new type of discourse wherein the concept of God is being originally used.

The second two topical Themes in Table 7 above are the perspectivizees ‘religious readers’ and ‘they’. While the two are co-referential, in that they denote one and the same participant in text, both Themes are oppositional in connotation, at least to the perspectivizer Dawkins. Here, the author presents the two Themes with two oppositional person schemas: first, the Theme ‘religious readers’ conforms with the traditional religious beliefs about the

absolute existence of God, and thus the Theme is being used in the there-is-God discourse; second, the Theme ‘they’, having read Dawkins’ current book, is hoped to develop a person schema that departs from the absolute belief in God and move towards an atheistic discourse, and thus such a Theme is being used in the there-is-no-God discourse – two disparate discourses underlain by two clashing schemas. This can be indexed in the Rheme structures of the two Themes ‘put it down’ and ‘will be atheists’, where the New information amounts to a transformation in person schema, and hence a new atheistic-scientific discourse should come into being.

There is yet another thematic perspectivizee in the above table (Table7), that is, ‘dyed-in-the-wool faith-heads’. The morphologically complex structure of such a Theme reflects the perspectivizer’s highly evaluative perspective: the negatively shaded compound pre-modifier and its compound-noun Head denote an ossified way of thinking or perspective. The person schema of such a topical Theme is perfectly indicated in the Rheme structure ‘are immune to argument’, which offers the New information about the perspectivizee’s unshakeable rejection of scientific discourse for the sake of irrational teachings and experiences of the past. The same conceptual meaning is extended to the last thematic perspectivized status noun ‘their resistance’, which imparts the idea of unwillingness to change such a perspective. Again, the Rheme of this perspectivized Theme carries significant information about the latter’s role schema, viz. being ‘built up over years of childhood indoctrination using methods that took centuries to mature’; such meta-schematic information can explain the mind of the perspectivizee ‘dyed-in-the-wool faith-heads’, according to Dawkins.

Thus, the whole morphologically motivated meanings of the foregoing perspectivizee, alongside the extended meaning of the perspectivized, can be said to be a revelation of what I may refer to as a *rhematically instantiated schema*, i.e. a sort of schema that is explicitly brought to the surface structure of Rheme, being the structure that bears the New information of discourse. Here, the schemas underlying both the perspectivizee and the perspectivized

can be characterized by the commonsensical belief that God is existent and that there is nothing to change such a belief; it is a belief that harks back to previous experiences of faith and its consequential practices of prayers in childhood. Note, in Extract 6, Dawkins' reference to the descriptive phrase "years of childhood indoctrination using methods that took centuries to mature," which is part of the present instantiated schema. Crucially, the discourse type in which the two thematic elements are being used is the unwillingness to change attitude (even in the face of all counter arguments!). This, again, demonstrates the continually dogmatic sense of faith which Dawkins perspectivizes to be true of all religions.

5. Conclusion: Findings and future research

The present study has opened with problematizing Systemic Functional Linguistics as a methodological model, whose scope of textual analysis is more descriptive than explanatory. The focus presented here was the Theme/Rheme analysis and its textual meta-function. Viewed as purely textual elements, both Theme and Rheme were traditionally, in too many cases, confined to the organizational properties of discourse and the specification of language medium. Using a cognitively oriented method from the discipline of social cognition, the current functional discourse-analysis research on the case study of Richard Dawkins' atheistic-scientific discourse has proved that both Theme and perspective on the one hand and Rheme and schema on the other could offer a fully-fledged picture of how Dawkins' discourse of atheism is potentially meaningfully antagonistic to other types of discourse, e.g. theism and creationism. The explanatory power of perspective and schema analysis has been crucial to the interpretation of Dawkins' discursive position as being ideologically opposed to other worldviews – atheistic versus theistic – through distinct person, role, and self-schemas.

Indeed, I argue, the main contribution of the present study is the empirically tested finding that the systemic-functional model of Theme/Rheme analysis can be augmented by social cognition, which has created what could be dubbed as cognitively oriented systemic-functional discourse analysis. This has been achieved by answering the two important research questions: (1) How can topical Themes

indicate discourse perspectives? (2) In what way can schematically relevant information about thematic perspectivization be linguistically cued in text?

In answering the first question, I have proposed the concept of thematic perspectivization which rests on the three constituent components of (a) perspectivizer, representing the author realized as the topical Theme 'I'; (b) perspectivizee, denoting any other human participant – again, topically thematic – that is being potentially perspectivized by the author; and (c) perspectivized, encoding any event, action, or role perceived by the author or by the perspectivizee. All three components were argued to correspond to certain types of schema whose relevant information has been linguistically cued within the scope of the Rheme; and this is where the answer to the second question emerged in research.

In order to answer the second question, the present study has employed the schema theory from the realm of social cognition, but of course without separating itself from the concept of thematic perspectivization. Crucially, the three different types of schema, person, self-, and role, were theoretically and analytically presented to be compatible with the three components of thematic perspectivization: perspectivizee, perspectivizer, and perspectivized, respectively. In the data analysis, new information, appearing as part of Rheme structure, proved to linguistically mark or cue related schemas; hence, the principle of meta-schematic information can be said to be inseparable from thematic perspectivization both in theory and in practice. Indeed, the information about the schemas underlying thematized elements in text was consistently found with the Rheme scope; and it is for this reason that the information values of Given and New, despite being essentially bound by tone groups and intonation, can instantiate the invisible schemas just as Themes can be a linguistic cue for perspective setting in discourse.

Finally, regarding prospects for future research on the same research point, probably it would be of great value if we apply the same synergetic method of SFL and social cognition to other further sets of data that range over different genres and discourse domains. That would certainly be doubly productive. On the one hand, it could

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add up to the validity of the present research hypothesis which suggests the significance of augmenting systemic-functional discourse analysis by means of theories of social cognition. On the other hand, it might improve the theoretical framework by integrating other related concepts, say, “frames” (Bateson, 1972; Frake, 1977), into the SFL model in terms of other lexicogrammatical resources such as Transitivity or Mood.

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