

Alvin Leong Ping

Delimiting the Theme of the English Clause —An Inference-boundary Account

Abstract

This paper is centred on the notions of Theme and Rheme as a resource for the organisation of the clause as a message. It takes, as its starting point, Halliday and Matthiessen's (2004) conception of Theme in English as a clause-initial element and as an anchor in the realm of experience. Viewed this way, the thematic segment of the clause minimally requires the presence of an experiential element, without which the clausal message cannot properly proceed (Halliday 1994: 53; Halliday and Matthiessen 2004: 66, 79). From a message-development perspective, however, we may also view Theme as a constraining force on the development of the clausal message. This places explicit focus on the fundamentals of the Theme-Rheme notions—that they organise the clause as a message—and draws our attention to various cognitive psychological considerations. An alternative model of Theme-Rheme is proposed in this paper. Termed the *inference-boundary* (IB) model—this model holds that Theme is a clause-initial element that is capable of generating a boundary of acceptability within which it is permissible for the Rheme to occur. Underlying the IB model is the *principle of acceptable message development*, the deliberate flouting of which serves as a simple procedure to delimit the thematic segment of the clause.

1. Introduction

This paper is concerned with the message structure of the English clause. It presents a reinterpretation of the functions of Theme and Rheme in the shaping of the message within the clause. Based on the Hallidayan fundamentals of Theme in English as a clause-initial element, it approaches the thematic structure of the clause from a message-development, rather than a metafunctional (cf. Halliday 1969, 1973; Halliday and Matthiessen 2004), standpoint. This leads us to view Theme as a constraining force on the development of the clausal message, providing an alternative understanding of the way messages are organised within the clause.

An alternative model of Theme and Rheme—the *inference-boundary* (IB) model (Leong 2000a, 2004)—is proposed in this paper. Based on

schema theory and the role of inferences in language processing, the IB model holds that Theme is a clause-initial segment that is capable of generating a boundary of acceptability within which it is permissible for the Rheme to occur. Underlying the model is a principle that holds for all well-formed clauses. Termed the *principle of acceptable message development*, or the AMD principle, this states that the Theme of the clause must be acceptably developed by the Rheme. As I hope to show in this paper, it is through the deliberate flouting of the AMD principle that Theme can be delimited in an intuitively appealing way.

2. Historical overview

The notions of Theme and Rheme may be attributed to the work of Henri Weil who, in 1844, made the following observation:

There is (...) a point of departure, an initial notion which is equally present to him who speaks and to him who hears, which forms, as it were, the ground upon which the two intelligences meet; and another part of discourse which forms the statement (*l'énonciation*), properly so called. This division is found in almost all we say. (Weil, 1844: 29)

The ideas of Weil were extensively developed by the Prague circle of linguists, notably Mathesius (1928), Daneš (1970, 1974), and Firbas (1992), among many others. A feature of the Prague approach is to regard Theme as the carrier of the lowest degree of *communicative dynamism* (CD)—an element that contributes least to the development of discourse. Such elements are typically retrievable from context and carry given information. Contextually independent elements, however, may also be thematic, provided they are foundation-laying in function. These include elements which establish the setting (time or place) of the discourse or bear some quality to be expressed by the clause (Firbas 1996: 66).

3. Hallidayan framework

Although adopting the Theme-Rheme terminology of the Prague circle, Halliday departs from Firbas and others by separating the thematic structure of the clause (comprising Theme and Rheme) from the information structure (comprising given and new information). Whereas given information is invariably thematic in the CD approach, the Hallidayan framework takes the opposite view:

(...) although they are related, Given + New and Theme + Rheme are not the same thing. The Theme is what I, the speaker choose to take as my point of departure. The Given is what you, the listener, already know about or have accessible to you. (Halliday and Matthiessen 2004: 93)

In the English language, Halliday instead conceptualizes Theme as a clause-initial, position-bound element, and Rheme as the development of Theme. Specifically, “a clause consists of a Theme accompanied by a Rheme; and the structure is expressed by the order—whatever is chosen as the Theme is put first” (Halliday and Matthiessen 2004: 65). In the Hallidayan framework, elements which occur in initial position are categorised as textual, interpersonal, or topical Themes, as shown in Table 1.

Metafunction	Component of Theme
Textual	Continuative Structural (conjunction or wh-relative) Conjunctive (adjunct)
Interpersonal	Vocative Modal (adjunct) Finite (operator) Wh- (interrogative)
Experiential	Topical (participant, circumstance, process)

Table 1. Textual, interpersonal, and topical Themes (Halliday 1994: 54; Halliday and Matthiessen 2004: 79)

These labels mirror the Hallidayan division of the major (meta)functions of language. These include the (a) textual metafunction, which enables language to be packaged and presented as an integrated whole, (b) interpersonal metafunction, which enables language users to interact with each other, and (c) experiential metafunction, which enables language users to construe their experience of the world in terms of participants, processes, and circumstances.

The topical Theme, the most important of the three Theme types, comprises only one experiential element and ends the thematic segment of the clause. Halliday (1994: 53) argues that until this constituent appears, “the clause still lacks an anchorage in the realm of experience.” The

thematic segment therefore extends from the beginning of the clause up to and including the first experiential element. As we see in Table 1 and examples (1–3) below, this experiential element is the first occurrence of any participant, circumstance, or process. The rest of the clause after the topical Theme constitutes the Rheme.

- | | | |
|-----|---|---|
| (1) | On Thursday,
Topical Theme
(circumstance of time) | the managers will discuss the issue.
Rheme |
| (2) | The managers
Topical Theme
(participant) | will discuss the issue on Thursday.
Rheme |
| (3) | Call
Topical Theme
(process) | the ambulance now!
Rheme |

The topical Theme need not be preceded by textual or interpersonal Themes as these are optional elements. If all three Themes do appear, however, they typically follow the textual–interpersonal–topical order, as in (4):

- | | | |
|-----|--|---|
| (4) | On the other hand,
Textual Theme
(conjunctive adjunct) | perhaps
Interpersonal Theme
(modal adjunct) |
| | you
Topical Theme
(participant) | should visit us next week.
Rheme |

4. Complications

As it has never been Halliday's intention to account for the acceptability of constructions, his framework is unable to clarify whether a clause is well- or ill-formed on thematic grounds. It is possible, for instance, for a thematic analysis to be undertaken on a clause such as (5) (assuming normal context, but see section 5.4 below), where *John* is the topical Theme.

- (5) John laid an egg.

This, however, is troubling, and I wish to say that if unacceptable clauses are deemed to have a thematic (and, therefore, message) structure, it would be very difficult to appreciate the functional roles of Theme and Rheme as a resource for *organising* the clause as a meaningful message.

In terms of theoretical consistency, further complications are raised. In the Hallidayan framework, it is held that the topical Theme is realised by the first experiential element in the clause. It is argued, as we saw earlier, that until this element appears, the clause has no anchorage in the realm of experience (Halliday 1994: 53). In practice, however, this is not always the case. Consider (6) and (7):

- (6) Is he sad?
- (7) There is a man outside.

In (6), a choice between two competing experiential elements is involved. Here, although the verb *Is* is an (intensive) relational process, it is not analysed as the topical Theme. Instead, many systemicists would rather regard the verb as a finite operator functioning as an interpersonal Theme, and the personal pronoun *he* as the topical Theme. This, however, does not hide the fact that it is the process, rather than the participant, that appears first (see also comments in Fawcett 2000: 165–166). The analysis leaves unanswered why a process that is co-extensive with the finite operator is not regarded as the topical Theme, but is somehow bypassed in favour of the participant. This, in turn, raises a query as to whether similar exceptions should also be made for elements in which an experiential element is fused with a textual or an interpersonal element, such as *wh*-relatives in non-restrictive relative clauses and *wh*-question words in content interrogatives (cf. Table 1).

The situation in (7), involving an existential construction, is slightly different. Here, the empty subject *There* is analysed as the topical Theme, even though it is semantically empty and, as Halliday and Matthiessen (2004: 257) concede, “has no representational function in the transitivity structure of the clause.” If so, it cannot be topically thematic, since the clause technically lacks an anchorage in the realm of experience. But because it is nevertheless regarded as a topical Theme, it raises a problem that is difficult to resolve on grounds of theoretical consistency (Huddleston 1988; see also Leong 2000b on an alternative analysis of existentials).

5. Rethinking Theme

These complications underscore the need to refine Halliday's account with an additional apparatus that is not only able to explain why certain linguistic constructions are ill-formed or less acceptable than others but also account for puzzles in (6–7) above. As a concept of initialness, a reasonable claim about the Theme in English is that it prepares the decoder for what is to come. Among several functions associated with initial elements, Downing (1991: 129) draws attention to their role in directing decoders' expectations towards language structure and meaning, and setting the main semantic framework which holds over the following clause or clause complex. Initial elements, therefore, work to shade in what is to come, and form expectations in this regard. If this is not fulfilled, the decoder will be forced to either revise the earlier expectation or reject the construction entirely.

Approaching the Theme-Rheme issue from the language user's standpoint, then, recognises a multitude of factors that influence the processing of language. Very broadly, these include context and our knowledge of the world, including knowledge of pragmatic principles (knowing when to say what and to whom), conventions of language use, and language itself (phonology, syntax, semantics, etc.). In their totality, these make up the cognitive environment of the language user, described as follows:

An individual's total cognitive environment is the set of all the facts that he can perceive or infer: all the facts that are manifest to him. An individual's total cognitive environment is a function of his physical environment and his cognitive abilities. It consists of not only all the facts that he is aware of, but also all the facts that he is capable of becoming aware of, in his physical environment. The individual's actual awareness of facts, i.e. the knowledge that he has acquired, of course contribute to his ability to become aware of further facts. Memorised information is a component of cognitive abilities. (Sperber and Wilson 1995: 39)

From the language user's perspective, a useful account of the way we store and apply our knowledge of the world, whether in terms of understanding linguistic impulses or making sense of events, is *schema theory*, first articulated in Kant (1787) and later expanded in Bartlett (1932). The role of inferences—the activation of information derived from background knowledge or memory—is also significant and will be addressed in the following sub-section.

5.1 Schemata and inferences

Schema theory is a powerful account of the way we store and process our knowledge of the world, whether in terms of processing language or making sense of events. We may view a schema as “a data structure for representing generic concepts stored in memory” (Rumelhart 1984: 2). When activated, a schema provides the relevant background knowledge or context that is needed for goal-oriented action, interpretation, or the generation of inferences (Hall 1989: 392–393). The following analogy of schemata as theories is particularly helpful:

Theories, once they are moderately successful, become a source of predictions about unobserved events. Not all experiments are carried out. Not all possible observations are made. Instead, we use our theories to make inferences with some confidence about these unobserved events. So it is with schemata. (Rumelhart 1980: 38)

Here, a schema functions “as a kind of informal, private, unarticulated theory about the nature of the events, objects, or situations that we face” (Rumelhart 1980: 37). That is to say, we rely on our schemata to account for some aspect of a new experience. The processing of any incoming input, therefore, is akin to “hypothesis testing, evaluation of goodness to fit, and parameter estimation” (Rumelhart 1980: 38). Whenever a particular schema fails to account for the new experience, it is either accepted in a modified form or rejected in search for another possibility.

Broadly, the schemata that are activated during language processing can be grouped under three categories (cf. Goatly 1997: 137):

(a) *World knowledge*: an inventory of our generic knowledge of concepts, abstract or otherwise, in our long-term memory.

(b) *Knowledge of context*: our awareness of the range of relevant contextual factors, including co-text, that have a direct or indirect bearing on the discourse (see further section 5.4).

(c) *Knowledge of pragmatics*: our awareness of discourse strategies that are used in a communicative encounter. This knowledge forms part of world knowledge and provides information as to why language is used in a particular way (see Seifert 1990).

To these, we may add our knowledge of language. Since our knowledge of the world is an inventory of schemata, and language acquisition is conditioned by external factors, our language schema, comprising what we know about language, cannot be independent of this inventory but is a part of it. As it is used here, our language schema refers,

narrowly, to our knowledge of the structure of language at the level of the clause (specifically, how declaratives, interrogatives, imperatives, etc., are typically structured). We shall refer to the language schema as S_1 and all other schemata (hereafter *other schemata*) that come to bear on our interpretation of any clausal message as S_2 . In terms of consciousness, it is surmised that S_1 tends to operate at a lower level than S_2 . There is an apparent ease by which we are able to produce and comprehend novel constructions. As Wingfield (1993: 201) remarks, these are “automatic processes over which we exert little control.”

When activated, schemata facilitate the generation of inferences. An inference, broadly defined, is “any piece of information that is not explicitly stated in a text” (McKoon and Ratcliff 1992: 440). This includes both transient activations of information, word-based inferences, and any information that is derived from background knowledge or memory (schemata) (van den Broek 1994: 557). In language processing, two types of inferences may be activated. The first, *forward inference*, tends to be non-specific in nature, unless it concerns the structural form of the clause. In this sense, forward inferences merely “[refer] to the anticipation of any aspect of future events, ranging from a specific expectation that a particular event will take place to a vague sense that something will occur” (van den Broek 1994: 570). In terms of message development, on the other hand, forward inferences serve as anticipators for some future event or development of the present input. The second, *backward inference*, serves to connect two stretches of language as a coherent whole. They establish local coherence and are based on information that connects instances of the same concept, pronominal reference, and causal relations.

5.2 Inference boundary model

How do schemata and inferences specifically relate to the notions of Theme and Rheme? As a generator of expectations, it is proposed that a useful way of interpreting Theme is to understand it as an element that determines a boundary within which it is permissible for the Rheme to occur. The primary function of Theme, specifically, is not simply to introduce the Rheme but to do so within a frame of acceptability so that the clause makes sense only if *both* its Theme and Rheme are considered together. The thematic element, as it were, has the constraining force to shape the development of the message in the rest of the clause. This model of Theme

and Rheme—the inference-boundary (IB) model—is represented in Figure 1.

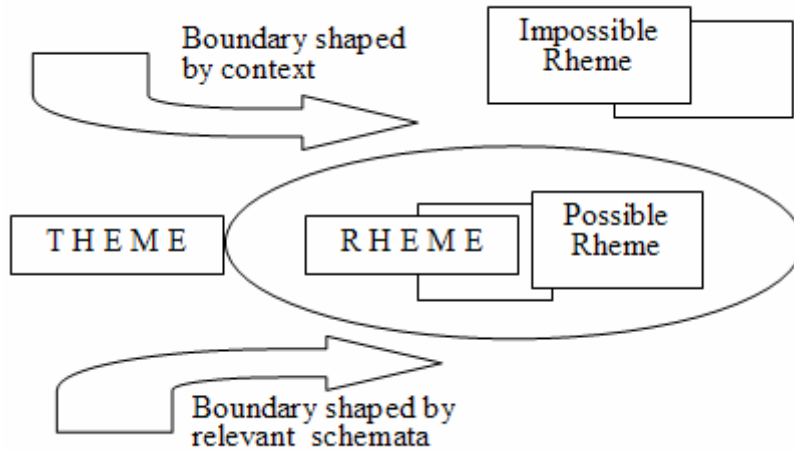


Figure 1. IB model

The ellipse in Figure 1 represents the boundary of acceptability generated by the thematic element. Of the possible Rhemes within the boundary, only one is eventually selected as the actual Rheme. Rhemes that fall outside the boundary are blocked from co-occurring with the Theme since this would result in an unacceptable construction.

By this formulation, when a clause is processed, there is an interplay of schemata related to language (S_1) and the world in general (S_2). Together with the prevailing context, these schemata establish a boundary of acceptability within which it is permissible for the Rheme to occur. Since clausal (mood) structures take a predictable form, forward inferences in S_1 tend to be specific. Clark and Clark (1977: 68), for example, propose the following strategy for language processing: “use the first word (or major constituent) of a clause to identify the function of that clause in the current sentence.”

However, since language cannot be meaningfully processed independently of S_2 , the interpretation of any linguistic input requires the operation of both S_1 and S_2 in tandem. These schemata (S_1 and S_2) in turn generate inferences that aid in the processing of the clausal message. The alternative representation of the IB model, viewed in terms of inference activation, is given in Figure 2.

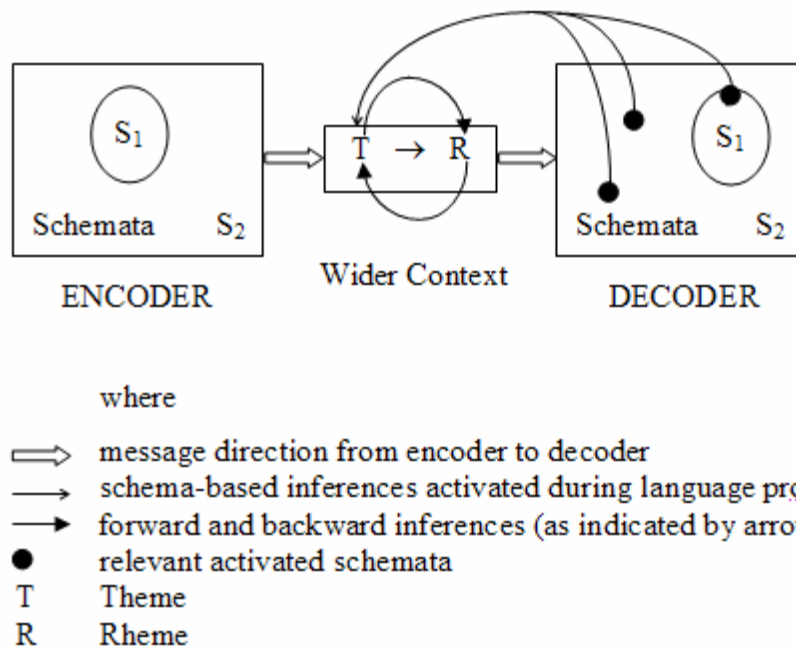


Figure 2. IB model in terms of inference activation

We see here that forward inferences are first activated in both S_1 and S_2 . Such inferences are admittedly difficult to pick out since specific inferences are (usually) generated only in S_1 where the linguistic context is highly predictable. In S_2 , it is generally the case that we can only infer that the message will proceed in a constrained but non-specific way (and hence the boundary of acceptability in Figure 1). Forward inferences in S_2 are unlikely to be specific as it would take up too much processing time for the decoder to continually generate specific predictions for every clause that is processed. Singer (1990: 170) calls this situation *inferential explosion*, where the individual becomes simply lost in thought. The observation below, albeit made in reference to connected texts, has relevance for clauses as well:

When forward inferences are made, they are less constrained than backward inferences. Whereas a backward inference usually needs to be compatible with two sources of constraint in the text, namely the focal statement and its antecedents, a forward inference is constrained by only one event, the focal statement (...) This lack of constraint allows for the possibility of an “explosion” of expectations, thereby making the prediction and investigation of these inferences problematic. (van den Broek 1990: 190)

When the decoder reaches the end of the clause, a backward inference occurs to relate the Rheme to the Theme, thereby establishing the appropriateness of the Theme-Rheme relationship. Backward inferences prompt the decoder to accept or reject constructions on the basis of this relationship, and serve as a check to prevent unacceptable Rhemes—those that fall outside the boundary of acceptability in Figure 1—from surfacing.

5.3 Principle of acceptable message development

Based on the IB model, an interesting fact about Theme becomes evident. Insofar as it activates a boundary which excludes impossible Rhemes, a Theme constrains what can come after it. We shall refer to this as the *principle of acceptable message development* (AMD principle), which states that the thematic Head of a clause must be acceptably developed by the Rheme in the context of the interactive encounter, whether in the written or spoken mode.

Since Theme is capable of activating a boundary of acceptability, it therefore also carries with it the potential of being unacceptably developed by an inappropriate Rheme. We seldom see the actualisation of this potential because there is hardly any benefit to the language user to exploit it. I wish to say, however, that this potential is in fact a very useful way of identifying the Theme of the English clause. Using well-formed clauses, the line separating Theme and Rheme is sometimes difficult to discern. But since the thematic element has the potential of being unacceptably developed, we may approach the delimitation problem from another angle and find out when it is first possible for the AMD principle to be deliberately flouted to form an anomalous construction (we shall refer to this as the *flout-AMD procedure*). Specifically, we are interested in locating the initial segment of the clause that is capable, in context, of being mismatched with the rest of the clause. The flout-AMD procedure is based entirely on the observation we made in section 5.2 that the Theme of the English clause has the constraining force to shape the development of the clausal message. A clause-initial element that is able to be deliberately mismatched with the rest of the clause demonstrates such a constraining force and is therefore thematic. Conversely, a clause-initial element that is unable to be mismatched with the following segment does not yet have such a constraining force and cannot be regarded as thematic in its entirety.

Using the flout-AMD procedure, we may discover, at first, that it is not possible for an anomalous clause to be formed based on the first clause-

initial element and the prevailing context. If so, that element cannot be regarded as being fully thematic since we have not yet been able to locate an unacceptable Rheme. What needs to be done, then, is to keep flouting the AMD principle for each succeeding element until we are able to form an unacceptable clause comprising a mismatch between the clause-initial segment and the rest of the clause. That clause-initial segment—the initial stretch of language that is AMD-floutable—forms the Theme of the clause. The notion of acceptability is of key importance here, and it is understood in terms of one's knowledge or perception of reality, a particular worldview, and common sense. It includes, but need not be confined to semantic well-formedness.

Since Themes have varying degrees of ability to constrain the clausal message, it may be more useful to reclassify Themes, not in terms of the Hallidayan metafunctional categories, but in terms of headedness. This is because, unlike Halliday, our emphasis here is on locating an initial element that is able to enter into a Theme-Rheme mismatch. More precisely, we shall define the thematic Head of a clause as that element that is able to generate a boundary of acceptability for the occurrence of the Rheme such that:

- (a) The boundary is obtained through the interplay of forward inferences in S_1 and S_2 ;
- (b) The boundary is narrow in the sense that it excludes impossible Rhemes that cannot be matched with the Theme; and
- (c) It is possible to form a favourable backward inference relating the Rheme of the clause to the Theme.

Any thematic element preceding or following the thematic Head is a thematic non-Head and is termed thematic pre-Head or post-Head, respectively.

Labelling Themes in terms of headedness acknowledges, as Halliday does, that there is an internal structure within Theme, but it also emphasises the idea of thematic prominence, of some element being more (or less) able than another to satisfy the flout-AMD procedure. Thematic non-Heads provide textual, judgemental, or stative information on the thematic Head, such as modal and conjunctive adjuncts. In line with the wave-like effect of thematic prominence (Halliday 1994: 336–337), thematic post-Heads still retain some thematic flavour but are at the ebb of the wave. Such elements are therefore also regarded as being thematic, but only weakly so.

Let us now examine how the AMD principle may be flouted to delimit the thematic Head. Assuming normal context, consider (8a):

(8a) Bill laughed.

Using *Bill* as the first clause-initial element, we employ the flout-AMD procedure by deliberately mismatching it with an invented segment, as in (8b) (the symbol # is used to indicate that the construction is anomalous):

(8b) #Bill^(Head) dissolved.

By the flout-AMD procedure, therefore, we are able to form an anomalous construction by mismatching *Bill* with the rest of the clause. Since the mismatch is possible, *Bill* is therefore functionally the thematic Head.

Next, consider (9a), again assuming normal context:

(9a) Fortunately, Bill laughed.

Somewhat mechanically, we might proceed to form (9b) and conclude that the AMD principle is floutable using *Fortunately* as the minimal element:

(9b) #Fortunately,^(pre-Head) Bill^(Head) dissolved.

Examining (9b) carefully, however, we soon realise that the construction is odd not because *Fortunately* is unacceptably developed by *Bill dissolved*, but because *Bill*, being human, cannot dissolve. That is to say, a Theme-Rheme mismatch is not yet possible using *Fortunately* as the minimal element. It functions merely as a thematic pre-Head, and we need therefore to look further to the right of the clause for the thematic Head. As we have seen in (8a–b), it is the next element *Bill* that is capable of being mismatched with the rest of the clause. We therefore conclude that *Bill* is the thematic Head, and *Fortunately*, the thematic pre-Head.

5.4 Contextual factor

As seen in Figures 1 and 2, the schemata that are activated in the processing of the clausal message are contextually bound. Since all clausal messages adhere to the AMD principle, it follows that the flout-AMD procedure (to delimit the thematic element) must also be sensitive to the prevailing context. Indeed, the contextual factor is of utmost importance since interpretations can and do vary from one situation to another. Using a simple example, Kittay illustrates this clearly:

Smith is a plumber (...) may be interpreted literally or metaphorically. [The sentence] is metaphorical if we know that Smith is not a plumber but a surgeon. (Kittay 1987: 100)

Cohen also shows that (10a) below would most certainly be considered unacceptable if it were an isolated unit:

(10a) The sparkle on summer dew has just run off with the milkman. (Cohen 1993: 68)

Yet, in context, it would be intelligible as an instance of a metaphor if it occurs in a passage containing (10b) as an earlier unit:

(10b) My wife is the sparkle on summer dew. (Cohen 1993: 68)

Given the importance of the contextual factor in the IB model, we may classify it as either *co-textual* or *situational* to draw a difference between linguistic and non-linguistic context. Within situational context, we may further divide it into *primary* and *secondary* context. Let us take these labels one at a time.

The first category—*co-textual context*—refers to the textual environment within which the element in question is located. The textual environment includes the surrounding words, clauses, or larger segments of text. The second category—*situational context*—refers to “the non-linguistic background to a text or utterance” (Crystal 1997: 88). It is what most people would understand by the term *context*—the physical environment, facial gestures, social distance between the discourse participants, and so on. As it is worded here (“non-linguistic background”), situational context also includes the unreal settings of fairy tales, myths, and legends—angry fire-breathing dragons, owls that spout words of wisdom, and geese that lay golden eggs, among numerous other possibilities, all constitute the non-linguistic background of the unfolding text.

It would therefore be helpful to distinguish two very different types of situational context. The first—*primary context*—applies to the general situation of the real world. This is the world that we are familiar with and comprises the smaller, restricted context of the communicative encounter. The second—*secondary context*—is the make-believe world where reality assumes a somewhat distorted character. Secondary context, however, does not immediately apply to all fictional encounters, but only to those where

the make-believe world has been endowed with some unique characteristic that is either far-fetched or impossible.

The children's tale in (11a) below, for example, represents a situation of secondary context.

(11a) In Eileen's nursery the toys were very busy each night. They held a sewing-meeting and each toy borrowed a needle from Eileen's work-basket, threaded it with cotton, and began to sew hard. They were sewing tiny flannel coats for the pixies who lived in the daffodil beds below the nursery window. They held a sewing-meeting and each toy borrowed a needle from Eileen's work-basket, threaded it with cotton, and began to sew hard. (Blyton 1966: 78)

The secondary context here forces the reader to adjust his schemata to accommodate an unreal world where toys are able to talk and perform various activities. In such a scenario, the flout-AMD procedure can only be applied in line with what is known about the limits of the secondary context, for even in a make-believe world, there still remain boundaries that restrict what can or cannot occur. The flouting of the AMD principle must therefore result in a linguistic construction that is anomalous in the light of the adjustments that need to be made in the secondary context. The toys in the tale from which (11a) is taken from, for example, do not have any skin (this information can be gathered from the co-text; it is not reflected in 11a as that would make the example too lengthy). From the second clause in (11a), we may then proceed to use the flout-AMD procedure to form (11b), which is anomalous in the secondary context:

(11b) #They^(Head) shed skin.

Given the secondary context, the flout-AMD procedure delimits *They* as the thematic Head since it is possible for this element to be mismatched with the following segment, in this case *shed skin*.

Often, when a preceding text is used as contextual information, it becomes trickier attempting to establish a Theme-Rheme mismatch. Consider, for example, (12a–b):

(12a) Bill studied hard for the test. But he failed it.

(12b) Bill studied hard for the test. #But he passed it.

In (12a), the use of *But* in the second clause signals an expectation of contrast that is not followed through in the second clause in (12b). On this count, it would appear that *But* is the thematic Head since there is a

mismatch between *But* and *he passed it* in (12b). To treat such elements as the thematic Head, however, is problematic, not only because they are optional elements in clause structure, but because, more crucially, they are non-robust in character (see further below for a fuller description). That is to say, even though co-text is an important consideration in the delimitation of Theme, the thematic Head itself needs to be sufficiently robust as a message peg. Modal and conjunctive adjuncts lack this feature and have only an indirect influence on the flow of the message proper. Monaghan, in fact, regards such Themes as non-cognitive since:

(...) they only draw attention to the relation of the [clause] as a whole to something else. They thus do not prevent a cognitive thematic choice being made in the same clause. (Monaghan 1979: 133)

How is robustness determined, particularly for optional elements such as conjunctions and adjuncts? In essence, this depends on how well the candidate for thematic Head is integrated within the clause. Quirk, Greenbaum, Leech and Svartvik (1972: 421) regard a clausal element as being integrated in clause structure if it is affected by the clausal process. For example, circumstantial adjuncts (as thematic Heads) exhibit integration by providing additional information that is unique to the clausal message. This makes it possible for them to be contrasted with another similar adjunct in alternative negation, as in (13a). In contrast, this is not possible for non-robust adjuncts and conjunctions, as evident in (13b–c):

(13a) As a teenager, Bill loved to play in the mud, but as an adult, he did not.

(13b) *Amazingly, Bill loved to play in the mud, but surprisingly, he did not.

(13c) *However, Bill loved to play in the mud, but therefore he did not.

For (12a), then, any attempt to formulate an anomalous construction by the flout-AMD procedure and the robustness condition returns us, once again, to our discussion on (9a–b). The thematic Head of the second clause in (12a) is therefore not the conjunction, but the pronoun *he*.

6. Comparison between Halliday's model and the IB model

As a complementary framework, the IB model produces results that are, in large part, identical to those of the Hallidayan framework. That is to say, the Hallidayan topical Theme corresponds generally to the thematic Head of the IB model.

An identical result, for example, is returned for the analysis of (6), reproduced below as (14a):

(14a) Is he sad?

The explanation, however, differs markedly. The IB analysis avoids the difficulty encountered in the Hallidayan framework which relates the topical Theme to the first experiential element in the clause (see section 4). Rather, by applying the flout-AMD procedure, it can be demonstrated that the verb is unable to enter into any mismatch between itself and the following segment. An anomalous result, assuming primary context, can only be obtained when the personal pronoun *he* is included:

(14b) #Is^(pre-Head) he^(Head) creamy?

Nevertheless, differences in analysis do exist, and these involve two broad areas:

(a) *Weak Themes in post-Head position.* Such elements tend to involve modal or conjunctive adjuncts, as in (15).

(15) Bill^(Head) fortunately^(post-Head) paid for the meal.

In the Hallidayan framework, the modal adjunct *fortunately* is regarded as part of the Rheme, simply because it occurs after the topical Theme *Bill*. The IB model, on the other hand, analyses it as a post-Head with weak thematic flavour. This follows the idea of weak Theme as articulated in Fries (1981), although it is not used in the way defined by him. Modal and conjunctive adjuncts that appear immediately after the thematic Head are held to retain some thematic flavour in the IB model, but only weakly so. They are considered thematic, although they are at the ebb of the thematic wave.

(b) *Existential, cleft, and extraposed-subject constructions.* The problem with existential constructions was raised in section 4. It was pointed out that the empty subject, having no experiential function, does not qualify as the topical Theme on definitional grounds. An alternative analysis is offered by the IB model. Using the flout-AMD procedure, it is not possible to formulate a construction that is anomalous due to a mismatch between *there* or *there+be* and the following segment. This suggests that the thematic Head of (7), reproduced below as (16a), is not

the empty subject *There*, but the entity construed existentially, assuming primary context:

(16a) There is a man outside.

(16b) #There is^(pre-Heads) a man^(Head) in the atomic particle.

In (16a), it would not be possible to use either *There* or *There+is* to form a mismatch with the rest of the clause. The invented anomalous construction in (16b) actually represents a mismatch between *There+is+a man* and *in the atomic particle*. By the flout-AMD procedure, therefore, *a man* is the thematic Head, with *There* and *is* as the thematic pre-Heads.

For cleft and extraposed-subject constructions (17a and 17c respectively), the flout-AMD procedure produces similar results:

(17a) It was the conference that ended late. (*cleft construction*)

(17b) #It was^(pre-Heads) the conference^(Head) that melted.

(17c) It is a shame to see her cry. (*extraposed-subject construction*)

(17d) #It is^(pre-Heads) a shame^(Head) to care for others.

We again see that it is not possible for the empty subject *It* and the *be* verb to enter into a mismatch with the rest of the clause. This illustrates that neither *It* nor *be* has the constraining force expected of the full thematic segment. As shown in (17b) and (17d), a mismatch is only possible if the following nominal element in each construction is included as part of the clause-initial segment. The flout-AMD procedure therefore delimits *the conference* in (17a) and *a shame* in (17c) as the thematic Heads. In both constructions, the empty subject *It* and the *be* verb are merely thematic pre-Heads.

On a note of caution, it is not suggested that the result in (16b) is uniformly true for all existentials (see Leong 2000b). Although less common, a few verbs other than *be* are permitted after the empty subject, namely, *exist*, *come*, *ride*, among others. The flouting of the AMD principle remains as the *only* test of the thematic status of each initial element. Consider the existential in (18a):

(18a) There lives a man down the street.

(18b) #There^(pre-Head) lives^(Head) a stone down the street.

Here, the flout-AMD procedure produces the anomalous construction in (18b), and demonstrates that a mismatch is entirely possible between

There+lives and the rest of the clause. We see in (18b) that while it is possible for a man to live down the street, we cannot expect the same of a stone. This means that the empty subject *There* is the pre-Head and *lives* is the thematic Head. Since there is no need in this instance to include *a man* in (18a) to form a mismatch, it is not part of Theme, but Rheme.

7. Conclusion

The IB model, admittedly, goes against the grain of Halliday's metafunctional approach to language description and analysis. It does not depart, however, from the fundamentals of Theme and Rheme. As I have tried to show in this paper, the relationship between Theme and Rheme is not merely sequential, but one that is centred on the clausal message. Beyond a certain point in the clause, the IB model claims that the message can be developed in an acceptable or unacceptable way. It is the thematic Head that dictates what is, and what is not, permissible as the development of the message. The Theme is therefore pivotal in determining how the clausal message will eventually proceed in the Rheme.

In some of their lexical glosses on Theme, interestingly, Halliday and Matthiessen (2004: 64–66) refer to it as the “point of departure” and that which “sets the scene for the clause itself”. By their very nature, such glosses are imprecise, but they curiously hint at the essence and function of Theme as outlined in the IB model. As we have seen, Theme constrains, in context, what can come after it. It serves as a point of departure in the sense that it permits a range of developments after it, but not others. The clausal message progresses up to a certain point in the clause where it becomes imperative for that initial segment to be acceptably developed by the rest of the clause. The point of departure is not reached, nor the scene set, until such a point is reached.

References

- Bartlett, Frederick C. (1932) *Remembering: A Study in Experimental and Social Psychology*. Cambridge: Cambridge University Press.
- Blyton, Enid (1966) *The Mouse and the Thimble*. In *The Blue Story Book*. St. Albans: Granada Publishing Limited.
- Clark, Herbert H. & Clark, Eve V. (1977) *Psychology and Language: An Introduction to Psycholinguistics*. New York: Harcourt Brace Jovanovich, Inc.

- Cohen, L. Jonathan (1993) The Semantics of Metaphor. In Andrew Ortony (ed.), *Metaphor and Thought* (2nd ed.), pp. 58–70. Cambridge: Cambridge University Press.
- Crystal, David (1997) *A Dictionary of Linguistics and Phonetics* (4th ed.). Oxford: Blackwell.
- Daneš, František (1970) One Instance of Prague School Methodology: Functional Analysis of Utterance and Text. In Paul L. Garvin (ed.), *Method and Theory in Linguistics*, pp. 132–140. The Hague: Mouton.
- (1974) Functional Sentence Perspective and the Organization of the Text. In František Daneš (ed.), *Papers on Functional Sentence Perspective*, pp. 106–128. The Hague: Mouton.
- Downing, Angela (1991) An Alternative Approach to Theme: A Systemic-Functional Perspective. *Word* 42 (2): 119–143.
- Fawcett, Robin (2000) In Place of Halliday's 'Verbal Group'. *Word* 51 (2): 157–203.
- Firbas, Jan (1992) *Functional Sentence Perspective in Written and Spoken Communication*. Cambridge: Cambridge University Press.
- (1996) Exploring Vilém Mathesius' Use of the Term Theme (Part II). *Linguistica Pragensia* 2/96: 63–86.
- Fries, Peter H. (1981) On the Status of Theme in English: Arguments from Discourse. *Forum Linguistica* 6 (1): 1–38.
- Goatly, Andrew (1997) *The Language of Metaphors*. London: Routledge.
- Hall, John F. (1989) *Learning and Memory* (2nd ed.). Boston: Allyn & Bacon.
- Halliday, M. A. K. (1969) Options and Functions in the English Clause. In M. A. K. Halliday & J. R. Martin (eds.) (1981), *Readings in Systemic Linguistics*, pp. 138–145. London: Batsford Academic & Educational Ltd.
- (1973) *Explorations in the Functions of Language*. London: Edward Arnold.
- (1994) *An Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold.
- Halliday, M. A. K. & Matthiessen, Christian M. I. M. (2004) *An Introduction to Functional Grammar* (3rd ed.). London: Edward Arnold.
- Huddleston, Rodney (1988) Constituency, Multi-Functionality and Grammaticalization in Halliday's Functional Grammar. *Journal of Linguistics* 24: 137–174.
- Kant, Immanuel (1787) *Critique of Pure Reason* (2nd ed.). Translated by J. M. D. Meiklejohn (1934). London: J. M. Dent & Sons Ltd.
- Kittay, Eva Feder (1987) *Metaphor: Its Cognitive Force and Linguistic Structure*. New York: Oxford University Press.
- Leong, Ping Alvin (2000a) The Inference-Boundary Model: Reinterpreting Theme and Rheme. *Language Sciences* 22 (1): 1–26.
- (2000b) Identifying the Theme of Existential Clauses: A Suggested Approach. *Folia Linguistica* 34 (3–4): 307–331.
- (2004) *Theme and Rheme: An Alternative Account*. Bern: Peter Lang.
- Mathesius, Vilém (1928) On Linguistic Characterology with Illustrations from Modern English. In Josef Vachek (compiler) (1964), *A Prague School Reader in Linguistics*, pp. 59–67. Bloomington: Indiana University Press.

- McKoon, Gail & Ratcliff, Roger (1992) Inference During Reading. *Psychological Review* 99 (3): 440–466.
- Monaghan, James (1979) *The Neo-Firthian Tradition and its Contribution to General Linguistics*. Tübingen: Max Niemeyer Verlag.
- Quirk, Randolph, Greenbaum, Sidney, Leech, Geoffrey & Svartvik, Jan (1972) *A Grammar of Contemporary English*. Essex: Longman Group UK Limited.
- Rumelhart, David E. (1980) Schemata: The Building Blocks of Cognition. In Rand J. Spiro, Bertram C. Bruce & William F. Brewer (eds.), *Theoretical Issues in Reading Comprehension: Perspectives from Cognitive Psychology, Linguistics, Artificial Intelligence, and Education*, pp. 33–58. New Jersey: Lawrence Erlbaum Associates, Publishers.
- (1984) Understanding Understanding. In James Flood (ed.), *Understanding Reading Comprehension: Cognition, Language, and the Structure of Prose*, pp. 1–20. Delaware: International Reading Association.
- Seifert, Colleen M. (1990) Content-Based Inferences in Text. In Arthur C. Graesser & Gordon H. Bower (eds.), *Inferences and Text Comprehension (The Psychology of Learning and Motivation, Vol. 25)*, pp. 103–122. San Diego: Academic Press, Inc.
- Singer, Murray (1990) *Psychology of Language: An Introduction to Sentence and Discourse Processes*. New Jersey: Lawrence Erlbaum Associates, Publishers.
- Sperber, Dan & Wilson, Deirdre (1995) *Relevance: Communication and Cognition* (2nd ed.). Oxford: Blackwell Publishers Ltd.
- van den Broek, Paul (1990) Causal Inferences and the Comprehension of Narrative Texts. In *Inferences and Text Comprehension (The Psychology of Learning and Motivation, Volume 25)*, Arthur C. Graesser & Gordon H. Bower (eds.), pp. 175–196, San Diego: Academic Press, Inc.
- (1994) Comprehension and Memory of Narrative Texts: Inferences and Coherence. In Morton Ann Gernsbacher (ed.), *Handbook of Psycholinguistics*, pp. 539–588. San Diego: Academic Press, Inc.
- Weil, Henri (1844) *De L'ordre des Mots dans les Langues Anciennes Comparées aux Langues Modernes*. Translated by Charles William Super (1978) as *The Order of Words in the Ancient Languages Compared with that of the Modern Languages*. Amsterdam: John Benjamins B. V.
- Wingfield, Arthur (1993) Sentence Processing. In Jean Berko Gleason & Nan Bernstein Ratner (eds.), *Psycholinguistics*, pp. 199–235. Fort Worth: Harcourt Brace Jovanovich College Publishers.

Contact information:

Alvin Leong Ping
 English Language & Literature Academic Group
 National Institute of Education, Nanyang Technological University
 Arts Building, Block 3
 1 Nanyang Walk
 Singapore 637616
 e-mail: paleong@nie.edu.sg

