Abstract

As the rate of publications devoted to research information continues to increase worldwide, abstracts continue to grow in importance. This paper attempts a functional exploration to journal abstracts and their generic structures.

The paper is divided into four chapters. Chapter 1 introduces the data and the aim of the study. Chapter 2 is the most important part in which seven abstracts are analyzed from the perspective of register with the resources for analysis in Halliday's Functional Grammar. Through the register analysis, the typical encoding patterns in abstracts are sorted out and a functional interpretation for the choice of those patterns is presented. In Chapter 3, emphasis is laid on the communicative purpose of the abstracts and their generic structures. After comparing and examining other scholars' models concerning the schematic structure of abstracts, a model of my own is suggested for further contest and modification. The last chapter is devoted to the limitations of the paper and the possibilities of further research.

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Chapter 1   Getting started

1. Introduction

1.1 The importance of abstracts

In England and America, when questions of employment or tenure are discussed in academic contexts, the slogan "publish or perish!" is frequently heard. When similar discussions come up in non-English academic contexts, the slogan changes into "publish in English or perish!" The English language has, without any doubt, become the most popular publishing language of the academic world.

As the rate of publications devoted to research information continues to increase worldwide, abstracts continue to grow in importance. Relatively few journals today publish articles without requiring authors to submit abstracts. Another well-known phenomenon is for journal editorial policy to require abstracts in English for papers in other languages. For example, in China, some journals require the writer to submit a title and an abstract both in Chinese and in English accompanying the paper. This is particularly true in the field of foreign language learning and teaching.

However, abstracts, despite the importance, continue to remain a neglected field among discourse analysts. Information on abstracts is largely confined to publications such as *Handbook of Technical Writing*, and *How to Write and Publish a Scientific Paper*... Most of these are virtually guidebooks to prepare abstracts. Although not research work of discourse analysts on naturally occurring texts, some of their claims might be revealing and can be viewed as a good start point of my analysis.

1.2 Definition

Abstracts are being defined in various ways in various publications. The American National Standards Institute (ANSI) defines abstract as follows:

An abstract is an abbreviated, accurate representation of the contents of a document, preferably by its author(s) for publication with it.

Some other versions are:

An abstract is condensed version of a long piece of writing that summarizes and highlights the major points, enabling the prospective reader to decide whether it will

be worthwhile to read the work in full. (*Handbook of Technical Writing*)

An abstract should be viewed as a *mini-version of the paper*. The abstract should provide a brief summary of each of the main sections of the paper. A well-prepared abstract enables readers to identify the basic content of a document quickly and accurately, to determine its relevance to their interests and thus to decide whether they need to read the document in its entirety. (*How to Write and Publish a Scientific Paper*)

From these definitions, I would like to summarize tentatively the nature of abstracts in the following three dimensions:

① the inevitable intertextuality with the academic source text

② the marketing function bridging the writer and the reader

③ the feature of brevity and distillation

2. Motivation and data

2.1 Motivation

The pervasive occurrence of abstracts and their under-researchness arouse my interest in analysing them. However, my interest concerns the abstracts that have already been written and published, not the abstracts that are to be written. Unlike the prescriptive character of the guidebooks mentioned above, my analysis would be of descriptive character.

2.2 Data

Generally, there are three kinds of abstracts: research paper abstracts, conference abstracts, and the kind that occurs in an abstracting journal. The latter two kinds do not concern my study here. My interest goes to the heading abstracts usually placed at the beginning of a research paper, or the so-called "homotopic" abstracts in journals. Of course, these abstracts can be further classified according to the disciplines they are in. For my analysis, I largely limit my data to abstracts found in the area of linguistics, which is actually my major. The limitation, however, has its sufficient justification. Research papers are noted for technicality and abstraction in academic discourse. Abstracts based on them would be even more difficult to handle in that they are in condensed form. Thus, if the analysts are laymen to the discipline

concerned, it is very difficult for them to get at the meaning of the abstracts, let alone analyze them.

My data source journals include one of the most reputable journals edited by Cambridge University, *Applied Linguistics* and four quality journals in China in the field of foreign languages: *Foreign Language Teaching and Research* edited by Beijing Foreign Studies University; *Modern Foreign Languages* edited by Guangdong Foreign Studies University; *Journal of Foreign Languages* edited by Shanghai International Studies University; and *Foreign Languages and Their Teaching* edited by Dalian Foreign Languages University. Besides, some more abstracts in the field of Pragmatics and Discourse Analysis are copied from *Linguistics Abstracts.* (1999.Vol.2) Although it is a journal entirely devoted to abstracts, it collects abstracts directly from linguistic journals around the world without editor's revision. Therefore, the abstracts are the original ones written by the authors of the articles.

3. The intended study and its aim

The present study intends to conduct an analysis on the collected abstracts in two perspectives: register and genre. As Swales (1990) points out, registers impose constraints at the linguistic levels of vocabulary and syntax, whereas genre constraints operate at the level of discourse structure. The basic theoretical framework and approach for my study are mainly within the area of systemic-functional linguistics.

For register analysis in my study, individual abstracts are examined mainly in the way of the sample analysis of Silver Text (Halliday, 1994), and an analysis of exposition (Martin, 1983). The systemic functional analyses enable us to make explicit how the abstracts are alike and different, and to relate those patterns to the situational contexts. The analysis starts from meaning by taking abstracts as text, a semantic unit. The aim is to find out how meaning is encoded in grammar, in other words, how meaning is realized in lexico-grammatical and discoursal levels. Another aim is to connect text with its contextual configuration. By quoting Halliday, "an analysis of this kind has two aims, one being a higher variant of the other. The first aim is to show why the text means what it does. The second aim, more difficult of attainment, is to show why it is valued as it is---Why it is effective,

or not effective, in relation to its purpose, or as a specimen of its kind."(Halliday, 1994: 391) Based on the above-mentioned analysis and previous research findings, attempts are made to sort out the typical encoding patterns and more importantly, provide a functional interpretation for the choice of these patterns.

For genre analysis in my study, emphasis is laid on the communicative purpose of the abstracts, and their generic structure. The models concerning the schematic structure of abstracts presented by other scholars are examined against the data I collected with comments given. Finally, I make an attempt to work out a more inclusive model of my own, which, of course, needs further contest and modification.

Chapter Two   Register Analysis

Part One. Theoretical Framework

1. The notion of register

Register is defined by Halliday as 'a variety according to use.'(Halliday & Hasan, 1989: 41) In other words, the register is what you are speaking at the time, depending on what you are doing and the nature of the activity in which the language is functioning. It is a semantic concept and can be defined as 'a configuration of meanings that are typically associated with a particular situational configuration of field, tenor and mode.'(Ibid, 38)

2. Three variables of register: field, tenor, mode

Field, tenor and mode are the three main dimensions of variation which characterize any register.

The field of discourse refers to what is happening, to the nature of the social action that is taking place: what is it that the participants are engaged in? In simpler words, what is being talked about?

The tenor of discourse refers to who is taking part, to the nature of the participants, their statuses and roles. In other words, it refers to the people involved in the communication and the relationship between them.

The mode of discourse refers to what part the language is playing, what it is that the participants are expecting the language to do for them in that situation, or how the language is functioning in the interaction.

The concept of register is a theoretical explanation of the commonsense observation that we use language differently in different situations. More technically, contextual dimensions can be seen to impact on language by making certain meanings and their linguistic expressions more likely than others.   Texts are in fact the realization of a finite and very limited number of critical contextual dimensions.

3. The notion of text

In Halliday & Hasan (1989:10), Halliday defines text in the simplest way by saying that it is language that is functional.   By functional, he simply means language that is doing some job in some context as opposed to isolated words or sentences.   He then

goes on to point out one important thing about the nature of a text: it is really made of meanings. Therefore, it is essentially a semantic unit.

4. Three strands of meaning: ideational, interpersonal, textual

One of the most powerful aspects of the systemic approach is that language is viewed as resource for making not just one meaning at a time, but several strands of meaning simultaneously. Halliday actually describes language as a system of 'meaning potential', which can only be realized in use. Texts, as a meaning unit, are in accordance semantically multidimensional. The three types of meaning or meta-functions can be glossed as follows:

Ideational meanings: we use language to talk about our experience of the world, including the worlds in our own minds, to describe events and states and the entities involved in them.

Interpersonal meanings: we use language to interact with other people, to establish and maintain relations with them, to influence their behavior, to express our own viewpoint on things in the world, and to elicit or change theirs.

Textual meanings: we use language to organize our messages in ways which indicate how they fit in with the other messages around them and with the wider context in which we are talking or writing.

Halliday makes an important point that a model of language of this kind can be naturally related to the organization of context, with ideational meaning used to construct field (the social action), interpersonal meaning used to negotiate tenor (the role structure) and textual meaning used to develop mode (symbolic organization). The relationship between the three language components and the three context variables is termed realization. The tripartite structure of language is therefore an encoding of the tripartite structure of the context of situation in which we use language.

Part Two. The Resources for Analysis in Functional Grammar

This part develops a framework for analyzing discourse---for describing the linguistic structures and functions of text and exploring their relations with the social context of their use.

1. Resources within the clause

1.1 Transitivity

The term transitivity will probably be familiar as a way of distinguishing between verbs according to whether they have an object or not. However, in Halliday's functional grammar, it refers to a system for describing the whole clause, rather than just the verb and its object. The transitivity system construes the world of experience into a manageable set of process types. A process consists, in principle, of three components: the process itself, participants in the process and circumstances associated with the process.

The concepts of process, participant and circumstance are semantic categories that carry out the ideational function of the clause as representation, as they explain in the most general way how phenomena of the real world are represented as linguistic structures. Halliday (1994a) first identifies three principal types of processes in the English clause: material, mental, and relational. He then goes on to recognize three subsidiary process types located at each of the boundaries: behavioral sharing characteristics of material and mental; verbal sharing characteristics of mental and relational; existential sharing characteristics of relational and material.

1.2 Mood and modality

The mood system of the clause is made up of the Subject and the Finite operator. This component plays a vital role in carrying out the interpersonal function of the clause as exchange in English. The subject expresses the entity that the speaker wants to make responsible for the validity of the proposition being advanced in the clause. Through the Finite, the speaker signals three basic kinds of claims about the validity of the proposition: For what time in relation to that of speaking the proposition is valid (tense); whether the proposition is about positive or negative validity (polarity); to what extent the proposition is valid (modality). The types of modality presented by

Halliday (1994a) include modalization (probability and usuality) and modulation (obligation and inclination).

1.3 Theme and Rheme

Language as representation (the ideational function) and language as exchange (the interpersonal function) need to be organized in linguistic messages. The thematic structure is essential in realizing the textual meaning of the clause as message. It is the point of departure of the message; it is that with which the rest of clause (Rheme) is concerned. It is also the part that gets related to the preceding text. Halliday calls the textual function the 'enabling function'.

2. Resources around the clause: cohesion

Theme constitutes the internal resource for structuring the clause as a message; cohesion realizes the external relationship between one clause or clause complex and another. According to Halliday (1994a), there are four ways by which cohesion is created in English: reference, ellipsis, conjunction and lexical organization. Cohesion naturally contributes to the textual meaning. However, experiential meanings are realized by transitivity and vocabulary. So lexical cohesion also functions in encoding experiential meaning.

3. Resources beyond the clause: grammatical metaphor

Grammatical metaphor is another key notion in systemic functional grammar. It refers to the expression of a meaning through a lexico-grammatical form which originally involved to express a different kind of meaning. The expression of the meaning is metaphorical in relation to a different way of expressing the 'same' meaning which would be more congruent. Since the expressing way is different, it in turn makes different textual meaning. Halliday (1994a) distinguishes two kinds of grammatical metaphor: ideational metaphor and interpersonal metaphor. Nominalizing is the single most powerful resource for creating grammatical metaphor. It is the use of a nominal form to express a process, an attribute, or any other meaning that is not originally a *thing*.

4. Resources below and above the clause

4.1 Groups and phrases

The basic unit for analysis in a text in functional grammar is the clause. However, the analysis can also be conducted with groups and phrases in order to state clearly the characteristic of each component. Such analysis can reinforce the realization of all the three meta-functions. (Hu 1989)

4.2 Logical relationship

Another step is to analyse the logic relationship between clauses. Hallliday (1994a: 218) refers to the two basic dimensions as taxis (interdependency) and logico-semantic relation. The former is classified into in Halliday's terms hypotaxis and parataxis; the latter expansion and projection. Within the relationship by which one clause expands another, Halliday identifies three broad semantic groupings: elaboration, extension and enhancement. As for projection, another three kinds groupings are suggested: reports, ideas and facts.

5. Summary

All the tools can be used for register analysis so far discussed are outlined in the following table with their relationship to the context strata.

Context		Language	
Register variables	Type of meaning	Discourse-semantic patterns	Lexical-grammatical patterns
Field	Ideational	Lexical cohesion	Transitivity
		Conjunctive relations	Logico-semantic relations
Tenor	Interpersonal		Mood, modality
			Attitudinal lexis
Mode	Textual	Reference	Theme structure
			Nominalization

Table 1.   Relationship between context strata and systems

in the systemic functional mode.

Source: Modified from Eggins & Martin (1998)

Part Three. Text Analysis

In this part, several case studies will be given using the tools listed in last part in order to explain why the texts are unlike and alike. In text analysis, there is usually a focal interest. For abstracts, the experiential meaning is obviously more important than interpersonal meaning. It is primarily language as **reflection**, not language as **action**. (Halliday & Hasan 1989) However, the meanings are woven together in a very dense fabric in such a way that we have to look at the whole thing simultaneously and multi-dimensionally, each perspective contributing towards the total interpretation. And this is the essential nature of a functional approach. All the abstracts in the study are numbered for ease of reference.

Abstract 1

① *The paper **makes an attempt to stimulate** theoretical thinking and empirical research in the domain of L2 vocabulary learning by introducing a construct of involvement with motivational and cognitive dimensions: Need, Search, and Evaluation.* ② *Retention of unfamiliar words **is claimed to be** conditional upon the amount of involvement* ③ *while **processing** theses words.* ④ *Involvement **is operationalised by** tasks designed to vary in the degree of need, search and evaluation.* ⑤*The paper **reviews** a number of constructs that are currently debated and investigated in the literature on cognitive and motivational aspects of L2 learning.* ⑥*It also **re-examines** the existing empirical literature on task effect in the light of the proposed construct of task-induced involvement,* ⑦ ***stresses** the need for deepening and broadening the construct,* ⑧ *and **discusses** possibilities it offers for research on vocabulary learning.*

(Source: *Applied Linguistics* 1/2001, P.1)

Transitivity

① Step 1 (clause 1)

The paper makes an attempt to stimulate theoretical thinking and empirical research in

Actor	Conation ⟶ material	Goal

the domain of L2 vocabulary learning by introducing a construct of involvement with

	Circumstance: manner	

motivational and cognitive dimensions: Need , Search, and Evaluation.

The clause is a material process in which 'makes an attempt to stimulate' is a verbal group complex with 'stimulate' as the key verb, although Halliday (1994a) regards it as the secondary group. "makes an attempt" is itself a mental process of conation, which actually carries the mood of the clause. By using the material process, the writer is telling the reader what the paper or rather he himself tries to do.

②Step 2 (clauses 2-3)

Retention of unfamiliar words is claimed to be conditional upon the amount of

α Carrier	Relational	Attribute

involvement while processing these words.

	β	mental	Phenomenon

Clause 2 and 3 make up a hypotactic clause complex of enhancement, which is a temporal type of the same time. The word 'process' means 'examine in details ', so the beta-clause is a mental process with Senser missing. However, this process is not so purely mental. It is with a mixture of material process. The alpha-clause is a relational process, signaling the relationship between 'retention' and 'involvement' is one of dependence. The process, strictly, should be coded twice, once as verbal (claim) and once as relational (be). The relation between 'is claimed' and 'to be' is one of projection. A more congruent form might be in hypotactic projection: *It is claimed that retention of unfamiliar words is conditional upon the amount of involvement.* The embedding of the relational process within the verbal one tones down what would otherwise have been a more assertive statement.

③Step 3 (clause 4)

Involvement is operationalised by tasks designed to vary in the degree of need, search

Value/Id	relational	Token / Ir

and evaluation.

Clause 4 is a circumstantial relational process of causal logical-semantic relations. Involvement comes from tasks especially designed. It represents one of the two related motifs of 'a causes/is explained by x', 'b proves/is proved by y'. (Halliday 1994b) Halliday argues that this pattern evolved to become the dominant grammatical motif in modern scientific English. The two nominal groups are linked by a verbal group whose lexical verb is of the 'relational' class, in this case *operationalise*, which means *cause*. For a summary of examples of lexicalization of logical-semantic relations as verbs, see Halliday (1994b: 141).

④Step 4 (clause5)

The paper reviews a number of constructs that are currently debated and investigated

Sayer	verbal	Range

in the literature on cognitive and motivational aspects of L2 learning.

Clause 5 is a verbal process, with 'the paper' as an inanimate Sayer, and 'a number of constructs' as Range. The process 'reviews' again is not purely verbal. It has the meaning of 'examine and comment' with a fraction of mental process.

⑤Step 5 (clauses 6-8)

It also re-examines the existing empirical literature on task effect in the light of the

Senser	1	mental	Phenomenon

proposed construct of task-induced involvement, stresses the need for deepening and

	2 verbal	Range

broadening the construct, and discusses possibilities it offers for research on

	3 verbal	Range

vocabulary learning.

Clauses 6-8 form a paratactic clause complex of the extending type. Clause 6 is a metaphorical mental process. Generally, mental processes do require one participant who is 'endowed with consciousness' as the Senser. (Halliday 1994a: 114) More congruently, the structure might read: *In the paper, I re-examine...* or *in the paper, the author re-examines...* However, such 'collapsed structures' are common in the abstract, for example, clause 4, clause 5, clause 6, clause7 and clause 8. For the latter two, the Senser (it, the paper) becomes the Sayer which is being omitted in both cases with 'the need' and 'possibilities' as Range respectively.

So far, we have analysed the abstract clause by clause in terms of transitivity. The ratio of the different processes in Abstract 1 is summurised as follows:

Material processes: 11.1%	Mental processes: 22.2%
Relational processes: 22.2%	Verbal processes: 44.4%

The predominance of verbal processes suggests that the writer is mainly telling the reader what he has said/written in the paper. (Writing is considered a verbal process of saying in written form.) The verbal processes here have their characteristics. First there are no instances of participants as Receivers, as the writer is directly saying to the reader. Second they are, for most of the time, not pure verbal processes like saying and talking in daily life. Instead, they are often correlated with mental factors. By

choosing these verbal processes, the writer is actually reporting to the reader what he has studied, and in turn, argued or claimed. In this sense, the abstract is a self-representation of representation (the paper). Bazeman also sees it as a representation: *The article's abstract serves as one further step in turning the article into an object, for the abstract considers the article as a whole and then makes a representation.* (Cited in Swales 1990) The mental processes in this abstract are all of cognition instead of perception or affection. They, together with the Phenomenon, reflect what the writer has thought about or what he has tried to understand. This can be easily accounted for by the fact that research paper itself is the product of human mental activity. However, with so many verbal and mental processes in the abstract, we find little instances of projection. This is because the writer is reporting his 'ideas' and 'locution' in a rather indicative way by using nominal groups rather than projected clauses, which would turn out to be more informative. The relational processes are equally important. Besides indicating the contents of the paper, the writer is at the same time directly providing the reader with some information concerning background, theoretical bases, and his opinion about certain phenomena. In encoding such meaning, the favored process type is that of relation, namely the processes of being. The only occurrence of material process involves action that is unlike those found in narratives. Unlike coming, going, they could not be physically perceived. It has to do with less tangible entities (theoretical thinking and empirical research). In fact, the action 'stimulate' is not really action at all.

Another striking feature concerning the transitivity of Abstract 1 is the total absence of people. All the participants in the processes are either 'the paper' or abstract entities. All this reinforces the objectivity of academic studies. The removal of human involvement or agency in this abstract is carried out by resort to the frequent use of passive voice and nominalization. In the perspective of ergativity, the process and medium relations in passive voice are summarised as follows:

Medium/Subject	Process
involvement	operationalized
retention of words	claimed to be
tasks	designed
constructs	debated and investigated

The use of nominalization in the abstract will be discussed in detail in the following section.

Nominalization

Throughout the abstract, we can spot many instances of nominalizations. These include: *thinking, research, retention, involvement, need, and possibilities.* High levels of nominalization characterize abstract written English, especially in the context of science, the humanities and the academic world. Martin classifies nominalization under a cline of six headings, ranging from the most active *–ing* form through derived and underived verbal nouns to abstraction. In this abstract, 'thinking ' is at the active extreme of the cline. 'research' is a case of underived verbal noun, whereas 'retention' and 'involvement' derive from 'retain' and 'involve' respectively. As known to all, nominalizations are not restricted to verbal processes. They refer to all those participant-like entities of non-participant meanings. Martin (1992) mentions the four typical examples of nominalization from four unmarked grammatical classes: adjective, verb, modal verb, and conjunction. In this abstract, 'need' and 'possibilities' are two examples of nominalized form of modal verbs: 'should' and 'might'. Next, I will examine the use of nominalization in this abstract by dealing with them one by one in details. In order to understand nominalization, we need to 'unpack' the meaning by denominalizing the participants and deverbalizing the cause-effect relation. In Clause 1, the human actor who will do the 'thinking ' and 'research' is simply not specified. The two nominalizations make the 'buried reasoning' possible by using the verb 'stimulate' to realize the logical relation in a highly economical fashion. The 'overt reasoning' might be realized in such a clause complex: *I write this paper so that when someone reads it, he will think in terms of theory and do some research in practice in order to gain some experience.* ' Buried reasoning' and 'overt reasoning' are typical ways of 'written' and 'spoken' constructions of meaning. (Martin 1991) With the next two nominalizations 'retention' and 'involvement', the human actor who tries to retain the words being learned and who gets involved in the learning process, namely the learner, is again totally obliterated. Consequently, it is the reified nominalized process that takes on the semantic qualities of a participant. The more congruent way of expressing the meaning might read like this: *while the learner is processing unfamiliar words, he involves himself in the process as much as possible so that he retains more unfamiliar words.* Thus, we can easily see that nominalization is a means of constructing causal and other types of logical relations between processes within the grammatical structure of a single clause. I believe the quality of condensation of nominalization

matches well with the distillation character of the abstract. Therefore, the former inevitably plays a significant part in the latter. The last group of nominalizations found in this abstract is worthy of more attention. As I mentioned above, they are in effect interpersonal metaphors. The nominalized modulation 'need' and the nominalized modalization 'possibilities' can be reworked as two modal verbs: 'should' and 'might'. Without nominalization, the clause might be like this: *we should deepen and broaden the construct and this is the point the paper emphasizes.* For the nominalization 'possibilities', it is quite difficult to denominalize. We only know that the construct might have several effects on research on vocabulary learning. But as regards the specific details, we are held in suspense. Here, I would like to argue that it is a distinct use of nominalization, which is particularly predominant in abstracts. It is a case of 'advance labels' put forward by Francis (1994) and one of the 'predictive categories' examined by Tadros (1994). An abstract is more like a map for readers. From the abstract, we know the writer is committed to a future discourse act. In this case, we are sure that the writer is bound to talk about the *possibilities* the construct offers in the research paper proper. For the writer, this nominalization is recapitulation, or a retrospective label, as he normally writes the abstract after the paper is finished. By contrast, for the reader, this is an advance label where he discovers the 'newsworthiness' of the paper.

Nominalizations are 'down in rank but discursive in function'. (Halliday 1994a) Once becoming a noun, they could be further packed with information by either premodifiers or post-modifiers. Next I will analyse the nominal groups consisting of more than a single element found in Abstract 1.

Nominal groups

A functional analysis to the nominal groups in the abstract is presented as follows.

Key: D---Deictic T---Thing E---Epithet C---Classifier Q---Qualifier N---Numerative
1. the   paper
   D   T
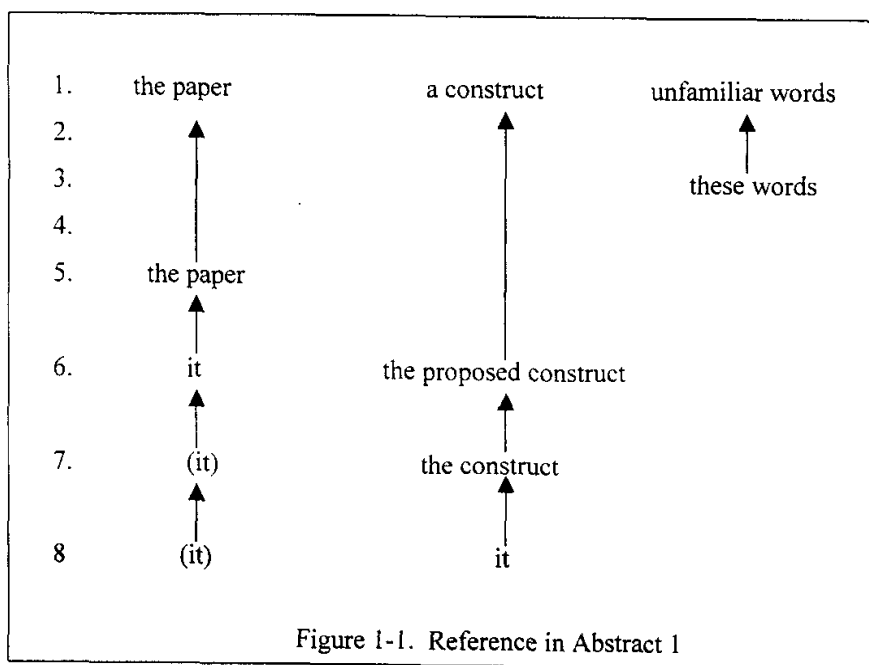   theoretical thinking and empirical research in the domain of L2 vocabulary learning
      C   T   C   T Q[D T   Q[C   C   T]]
   a construct of involvement with motivational and cognitive dimensions
   D   T   Q[T   Q[C   C   T]]

2. retention of hitherto unfamiliar words   the amount of involvement

    T   Q[D   E   T]   D   T   Q[T   ]

3. these words

    D   T

4. tasks designed to vary in the degree of need, search, and evaluation

    T Q[D   T   Q[T   T   T]]

5. a number of constructs that …in the literature on cognitive and motivational

      N   T   Q[D   T   Q[C   C

    aspects of L2 learning

    T   Q[C   T]]]

6. the existing empirical literature on task effect

    D   E   C   T   Q[C   T]

7. the need for deepening and broadening the construct

    D   T Q[D   T]

8. possibilities it offers for research on vocabulary learning

    T   Q[T   Q[C   T   ]

Of interest here is the frequency of Thing Qualifier structures. We find nine such structures among the eleven nominal groups. The proportion amounts to 82%, even not counting the Qualifiers in the Qualifiers. The frequency of this structure reflects the distilling and information-loading function of abstracts. The sentences are made long not by piling up clauses, but by prepositional phrases or embedded clauses. They add specificity to the nominal group, and moreover, lexical density is achieved. Among the pre-modifiers, we notice a large number of Classifier Thing Structures. For the 29 Things, there are 10 Classifiers as opposed to 2 Epithets in a ratio of 34.5% and 6.9%. The large proportion of Classifiers in contrast to Epithets in this abstract might suggest the classificatory feature of academic writing. Even the two Epithets 'unfamiliar' and 'existing' refer to the quality and the state of the Thing, without involving the writer's personal attitudes. In other words, they are experiential Epithets rather than attitudinal ones.

Cohesion

In examining the cohesion of this abstract, we find no ellipsis, substitution or conjunctions as cohesive ties. The cohesive ties found are reference and more importantly, lexical cohesion.

The results of reference analysis are presented in Figure 1-1. As shown in the figure, there are not many referential chains. Only 'the paper' and 'the construct' chains cover the whole text. The relationship of the members is that of co-reference: every member of the chain refers to the same thing. They are also two identity chains in the abstract. I will label them as Chain (a) and Chain (b) respectively.

1.	the paper	a construct	unfamiliar words
2.	↑	↑	↑
3.			these words
4.			
5.	the paper		
6.	↑ it	the proposed construct	
7.	↑ (it)	↑ the construct	
8	↑ (it)	↑ it	

Figure 1-1. Reference in Abstract 1

Lexical cohesion is exploited as the key organizing principle of this abstract. Repetition is found throughout the text. Involvement appears four times. Other Repetition examples include task (3), need (2), search (2), evaluation (2), L2 vocabulary learning (3), research (2), motivational (2), cognitive (2), empirical (2), and literature (2); with the number in '()' signaling the number of occurrences. Viewed separately, these words are cases of word repetition; but taken as a whole, they have a more than ordinary tendency to co-occur. This 'co-occurrence tendency' is known as 'collocation'. A lot of journals in academic field demand a group of 'key words' together with the abstract to precede the paper proper. These 'key words' not only play an important role in abstracts, but also supports the finding that lexical cohesion is the primary device for abstracts to remain cohesive. Lexical cohesion in abstracts is mainly maintained by the presence of keywords which have special significance for the meaning of the text. The keywords, to a large extent, are lexical collocation within a particular abstract. They are regarded as 'technical' and appear

almost exclusively. However, the editorial policy in *Applied Linguistics* does not require the submission of keywords with the abstract. If it did, the keywords for this abstract could be: *L2 vocabulary learning, involvement, task-induced construct.* Although lexical repetition occurs extensively, each repetition is treated as if it were a new start, because of the absence of cohesive deixis. For example, 'involvement' occurs in four of the five sentences, but each time there is no explicit signal that the word has occurred earlier. Besides single repetition, some lexical cohesion calls for readers' world knowledge or their ability to paraphrase. For example, one needs to know that learning vocabulary entails retention of unfamiliar words. The writer seems to presuppose a reader who is familiar with and interested in the topic and who can easily make connections between sentences.

Apart from repetition and synonymy, the lexical items can be related to each other in other clustering and arrangement. In this abstract, we may recognize an important set of concepts with a particular hierarchical arrangement. Take the key word *involvement* and its relations with 'motivational and cognitive dimensions', and with 'Need, Search, Evaluation' as an example. Their relations are one case of hyponymy with involvement as the superordinate. It is also one of the two basic kinds of lexical taxonomy that are pointed out by Halliday to typically occur in scientific texts: superordination and composition. In this case, it is an instance of the former. The involvement taxonomy is outlined in Figure 1-2.

Figure 1-2. Involvement taxonomy in Abstract 1.
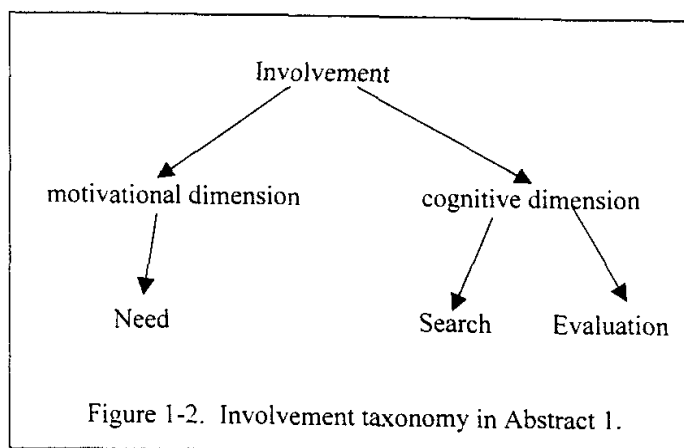
Involvement is perceived as a motivational-cognitive construct. The need component is the motivational, non-cognitive dimension of involvement. It is concerned with the

need to achieve. Search and evaluation are the two cognitive (information processing) dimensions of involvement, contingent upon noticing and deliberately allocating attention to the form-meaning relationship.

Besides the two identity chains I mentioned above, several similarity chains are found in the abstract. One of them is a process chain. I label it Chain (c).

Chain (c): stimulate......introduce......review.......reexamine.......stress......discuss

The rest are:

Chain (d): involvement......involvement.......involvement......involvement

Chain (e): need.......possibilities

Chain (f): thinking......research

Chain (g): theoretical......empirical

Chain (h): vocabulary learning.......vocabulary learning

The interaction between the chains in this abstract is presented in Figure 1-3.

Figure 1-3. Chain Interaction in Abstract 1
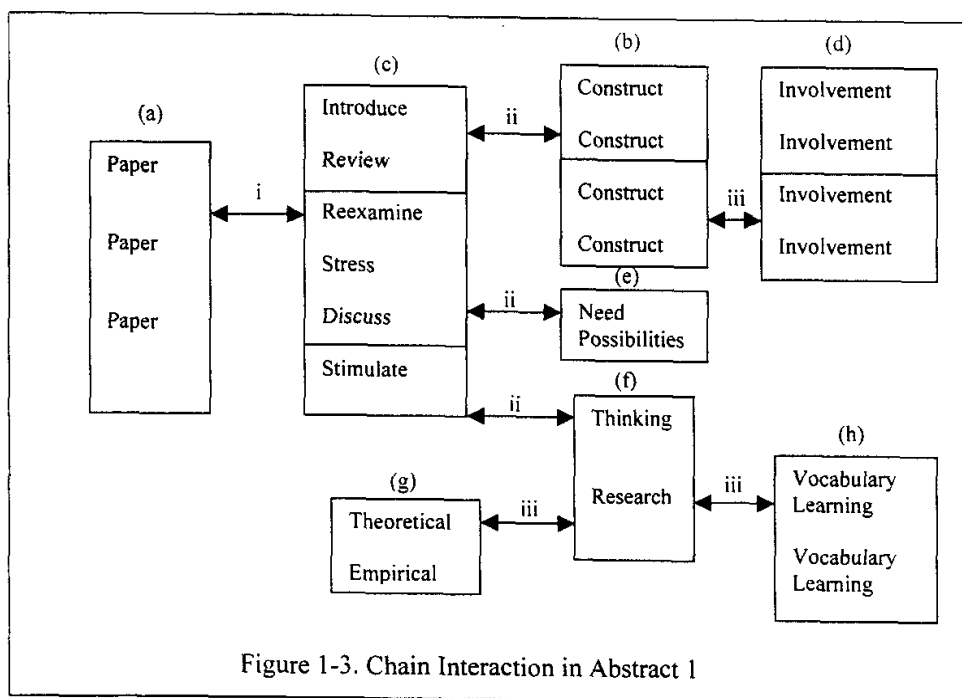
Each arrow in the Fig.1-3 has a roman number to allow easy reference and to indicate relations between the two chains. They can be glossed as follows:

    i. in 'actor action' relation

    ii. in 'action acted-upon' relation

    iii. in 'attribute/qualifier head' relation

The entire set of interacting chains is complexly related, with chains (a), (b), and (c) as the three focal chains. There is no break in the interaction so that cohesive harmony is thus achieved. From the interaction chains above, we easily come to the gist of the text: the main ideational meaning of the abstract is that the paper is about a construct of involvement in L2 vocabulary learning. This again proves that lexical cohesion is also an important resource for constructing ideational content.

Theme

The Themes in the abstract are summarized as follows:

Paragraph Theme from Clause 1: The paper (T1)

Clause Themes: Clause 2: Retention of unfamiliar words (T2)

                    Clause 3: no Theme

                    Clause 4: Involvement (T3)

                    Clause 5: The paper (T4)

                    Clause 6: It (T5)

                    Clause 7: (it) (T6)

                    Clause 8: (it) (T7)

The properties of the summarized Themes can be examined in two perspectives: grammar and lexical-semantics. Ghadessy (1998) has identified several types of Themes under these two headings. In terms of grammatical properties, the Theme types are: Simple Theme, Multiple Theme, Textual Theme, Interpersonal Theme, Unmarked Ideational Theme, Marked Ideational Theme, Clause Theme, Ellipted Theme, Predicated Theme, Thematic equative, and Grammatical metaphor. In terms of lexico-semantic properties, the types are: Speaker/hearer, Major Text Participant, Object, Portion of Scene, Abstract Concept, Process, Time, Location, Manner, Cause, and Condition. In Abstract 1, T1, T4 and T5 i.e. 'the paper' cluster are examples of Simple Theme and Major Text Participant. T6 and T7 are instances of the so-called Ellipted Theme. T2 and T4 are two Grammatical Metaphors and Abstract Concepts.

The notion of thematic progression concerns the ways that texts develop the ideas they present. More specifically thematic progression concerns where Themes come from—how they relate to other Themes and Rhemes of the text. Danes described a number of typical thematic progressions, including the three canonical types diagrammed in Figure 1-4.

Figure 1-4. Three major patterns of thematic progression according to Danes
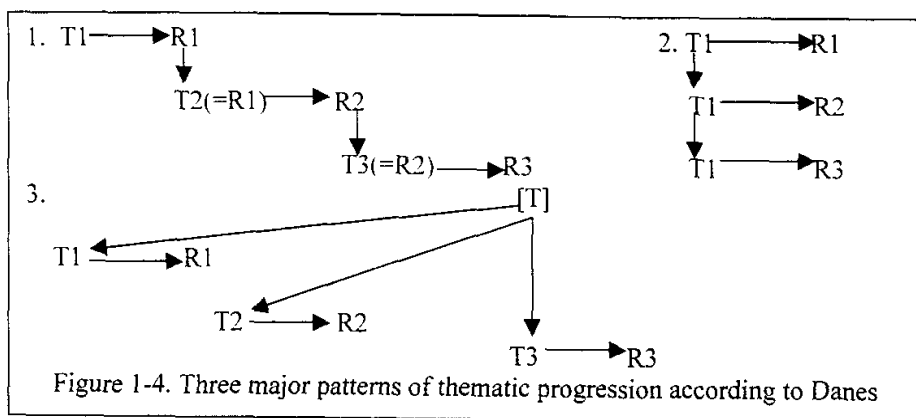
The first type of thematic progression in Figure 1-4 could be called 'linear thematic progression'; the second type of thematic progression could be called 'Theme iteration' or 'constant Theme'; and the third type might be called a progression with derived Themes.

The thematic progression pattern in Abstract 1 is presented in Figure 1-5.

Figure 1-5. Thematic progression in Abstract 1.
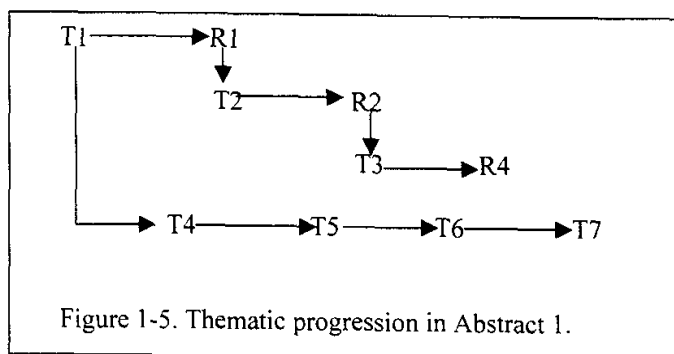
In expository texts it is quite likely for the same participant to remain as topical Theme for a certain stretch of discourse. 'The paper' in this abstract is the thing that is being expounded. The abstract is on the whole paper-oriented rather than content-oriented. Thus, as a whole, the thematic pattern appears to be a parallel thematic pattern with a more stepwise structure embedded. The embedded thematic progression displays itself in a simple linear Theme pattern, where the Theme of one clause is selected from within the Rheme of the preceding clause. The Rhemes in this abstract are very complicated, consisting of several parts with heavy embeddings as shown in the analysis of the nominal groups. Any part may become the Theme of the

next clause, thus the Rheme usually has to be split. Sometimes inference and world knowledge are needed to connect the Theme with the preceding text. For example, 'retention of unfamiliar word (T2) can be a paraphrase of 'vocabulary learning' which appears in the Rheme of the first sentence. The writer generally focuses on 'the paper', which is his starting point of the abstract, telling readers what the paper has aimed at, what it has studied, and what it has discussed. For the embedded part, readers are led by the linear Theme pattern according to the writer's logical arguments.

Mood and modality

I did not mark the Mood and Residue of every clause. This does not mean that the interpersonal meaning is not important in the discourse of abstracts. The communicative task of abstracts is to pass on information, to arousethe editor or the reader's interest to read the whole paper. Moreover, all researchers are faced with decision about to what degree an assertion is claimed to have validity. They are responsible for the validity of the propositions being made. Therefore, modality does play an important part in academic writing of which the genre of abstracts is a typical kind.

In this abstract, we find all the clauses are of declarative type. They are statements for the transmission of information. Although abstracts are mostly written after the whole paper has been finished, the writer uses simple present tense throughout the text. He does this in order to give readers a sense of proximity. It also shows that what he puts forward as arguments are objective facts. As for polarity, all the clauses are positive. Owing to the space limitation in the abstract, the writer is generally not allowed to include statements of what has not been done in the paper. In this abstract, we find no examples of modal verbs, mood adjuncts or comment adjuncts that typically encode the interpersonal meaning of the text. However, we can still get clues from some other patterns in the text which signal the writer's relationship with the reader and his certainty and confidence as to the validity of his claims and the significance of his studies. The choice of the impersonal agency as the subject and the passive voice in Abstract 1 shows that the writer deliberately distances himself to the background. It is also a frequently used way of 'hedging' in academic writing. It seems as if what has been said has nothing to do with him. According to Hyland (1996), these are two distinctive signals of writer-oriented hedges as the

writer's responsibility can be reduced by detachment. Halliday (1994a) claims that interpersonal meaning can also be realized by the epithets in the nominal groups. However, we cannot find any attitudinal epithets in the above nominal group analysis of this abstract. In academic writing, such epithets are seldom used as resources for communicating interpersonal meaning. Rather, we can sense the interpersonal meaning from the verbal group complex and the choice of reporting verbs. In this abstract, we come across a verb group complex 'make an attempt to stimulate'. The alpha group (Halliday 1994a) or the first verbal group (Wang 2000) 'make an attempt' is related to the possible outcome of the Event. The writer is not so sure as to whether he can succeed in achieving his aim. The choice of different reporting verbs, either mental or verbal, can show the writer's attitude and confidence towards the propositions he makes, to some extent. This demonstrates his sensitivity to the variation of meanings of different reporting verbs. For example, the writer chooses the verb 'stress' to show the importance of 'the need' in this abstract. And as I mentioned above in the section of nominalization analysis, the two nominalizations 'need' and 'possibilities' are metaphorical expressions of certain modality. As for the relationship between the writer and the reader, we find the writer expects the reader to have some assumed knowledge by using abstract concepts and technical terms like *construct, involvement, cognitive, need, search, evaluation*. He is writing to someone who is also an expert or at least a near expert. By writing in this way, he is not showing consideration for the reader, but actually paying respect to him.

Register

So far, we have analyzed this abstract in terms of transitivity, clause complexes, nominalization, cohesion, Theme, mood and modality. The three strands of meaning are actually interwoven, which cannot be easily separated from one other. They as a whole construct the context of this text, and in turn the context significantly conditions the text. The 'contextual configuration' of field, tenor and mode could be summarized as follows:

(1). Field: (a) General: An abstract in applied linguistics. Task: Introducing the paper

        (b) Specific: An abstract of a paper introducing a construct of involvement in L2 vocabulary learning. Task: Indicating the aim of the paper and what has been dealt with in the paper.

(2). Tenor: Scholar writer and scholar readers, a quite equal in-group status relationship. The writer takes an inactive part by making no reference to

himself and without addressing his readers who are unseen and unknown. The value of the modality is median.

(3). Mode: Language role: constitutive   Medium: written, planned

Channel: graphic   Characteristic: nominalization & lexical density

Abstract 2

① *Previous research on the cleft sentence **has been confined to** the sentential level* ②*and often **neglects** the pseudo-cleft sentence.* ③***Based on** its formal characteristics,* ④*this paper **makes an attempt to investigate** the pseudo-cleft sentence from the perspective of both grammatical metaphor and text.* ⑤ *It **is argued** that* ⑥ *as a grammatical phenomenon, the pseudo-cleft sentence **is bound up with** text.* ⑦*The examination of the pseudo-cleft sentence in text could **provide** insights into both its role in communication and its mechanism.* ⑧*thus **paving the way for** further study.*

(Source: ***Foreign Languages And Their Teaching*** 2/2001, P.26)

Transitivity

① Step 1 (Clauses 1-2)

Previous research on the cleft sentence has been confined to the sentential level and

1 Identified /value	relational: circumstantial	Identifier/token

often neglects the pseudo-cleft sentence.

=2	mental	Phenomenon

Clauses 1-2 form a paratactic clause complex of extending. By using a relational process and a mental one, the first sentence indicates the limited range of the previous research and the phenomenon that it has failed to pay attention to.

②Step2 (Clauses 3-4)

Based on its formal characteristics, this paper makes an attempt to investigate

relational	Identifier × β	α	Senser	Conation ————▶mental

the pseudo-cleft sentence from the perspective of both grammatical metaphor and text.

Phenomenon	Circumstance: manner

its role in communication and its mechanism], thus paving the way for further study.

	+ β Pr: relational (causal)	Identifier/ Value

Clauses 7-8 form a hypotactic clause complex of extending. The alpha clause is a relational process with the verb 'provide' as an example of lexicalization of logical-semantic relations of cause. The extending beta clause is also a relational process. 'paving the way for' is a fixed expression on the surface of which it is a material process. However, its deep and congruent meaning is 'help lead to' which is a typical lexicalization of causal relations. (Halliday 1994b: 141)

The ratio of the different process in Abstract 2 is summarized as follows:

Relational process: 5/8=62.5%

Mental process: 2/8=25%

Verbal process: 1/8=12.5%

Compared with Abstract 1, Abstract 2 demonstrates a predominance of relational processes. This can be accounted for by the suggestion that Abstract 2, unlike the first one, is not so much 'paper-oriented'. It is, instead, more 'content-oriented'. Instead of being mostly told what 'the paper' has done or said, the reader are directly provided with information concerning the paper's content or the writer's arguments and opinion although still with details withheld. The purpose of the source paper is mainly concerned with the relationship between different phenomena in the world of linguistics, expressing views on their logic relations through processes of being. While Abstract 1 is a map of the paper, Abstract 2 is more like a mini-version of the source paper. In other words, Abstract 1 is more indicative, whereas Abstract 2 is more informative. This is achieved largely by using relational processes and verbal processes with projection.

Nominalization

Grammatical metaphors are also prevalent in Abstract 2, as we find a high degree of nominalization: *research* (process), *characteristics* (quality), *examination* (process), *insights* (process), *role* (process) and *communication* (process). The nominalizations

in Abstracts 2 have the same function as discussed in Abstract 1 for those connected with process meaning. Most of them, like 'research', 'examination', 'study' are used to encapsulate human cognitive mental processes. All these nominalized abstractions feature as participants. Moreover, by becoming a 'thing', the meaning can now be treated as existing. They can also be further modified. For example, *research* is pre-modified by the epithet *previous*, and post-modified by the qualifier *on the cleft sentence*. Thus, a heavy load of information is mapped out onto the nominalization. If put more congruently in spoken mode, we might have to state in this way for the first clause: *When researchers studied the cleft sentence in the past, they confined it to the sentential level.* In this case, we have an increase in the number of clauses and a decrease in lexical density. In the two clauses, there are eight content words. Therefore, the corresponding lexical density is 8/2=4.0 as contrasted to the present 7.0 for the first clause in Abstract 2. In the last sentence of this abstract, with the nominalizations 'examination', 'insights' and 'study', the above mentioned 'buried reasoning' is again achieved, which is a typical symbol of written mode. The 'buried reasoning' here is a relation of cause, which might be realized in a hypotactic clause complex: *Because researchers have examined the pseudo-cleft sentence in text, they can see into its role in communication and mechanism, and also they can go on studying the phenomenon more easily.*

Owing to the limitation in space, I will not unpack all the nominalizations in Abstract 2 one by one. I have chosen the most representative ones to be analyzed. The so far attempted unpacking of the nominalizations indicates that those nominalizations are accompanied by a decrease in the grammatical intricacy of the text, an increase in the lexical density of the clause, and also an increase in the omission of Agents/Actors of the processes so that Abstract 2 appears to be more impersonal. In abstracts, nominalizations have a distinctive function of prediction. For example, in this abstract, what are the pseudo-cleft sentence's formal **characteristics**? What are the **insights** provided by the examination? What is its **role** in communication and its mechanism? As a reader, we expect to find detailed information concerning all these 'advance labels' in bold in the accompanying paper. In the abstract, these predictions are not

elaborated. By quoting Tadros' terms (Tadros 1994), we find largely *V-member* (the predictive) in abstracts without the subsequent *D-member* (the predicted), which should be there in full texts.

Cohesion

In Abstract 2, relatively little use is made of grammatical resources for achieving cohesion. This feature corresponds with Abstract 1. The cohesive ties found are also mainly reference and lexical cohesion. The results of reference analysis are presented as follows:(the number signals the clause)

Ties are anaphoric unless otherwise indicated with the following key:

S: esphoric   H: homophoric   X: exophoric

(2) the pseudo-cleft sentence (H)---(3)its formal characteristics---(4)the pseudo-cleft sentence---(6)the pseudo-cleft sentence---(7)the pseudo-cleft sentence---its role---its mechanism

(1) *the sentential level (H)*

(4) this paper (X)

(4) the perspective –of both grammatical metaphor and text (S)

(7) the examination –of the pseudo-cleft sentence (S)

(7) the examination –in text (S)

(7) its role –in communication (S)

Whenever a participant is mentioned in a text, the writer must signal to the reader whether the identity of the participant is already known or not. This is, participants in a text may be either presented to us (introduced as 'new' to the text) or presumed (encoded in such a way that we need to retrieve their identity from somewhere). Only presuming participants create cohesion in a text. The identity of a presuming reference item may be retrievable from a number of different contexts: if from the general context of culture, it is homophoric reference; if from shared immediate context of situation, it is exophoric reference. These two kinds of reference contribute to the text's coherence. The reader has to share with the writer such assumed knowledge as the cleft sentence, the pseudo-cleft sentence, and the sentential

level. Also the reader knows 'this paper' refers to the paper to which Abstract 2 is attached. Unlike such ordinary homophoric reference as 'the head, the car, the child...', the homophoric reference here assumes a limited range of readership in the professional field. Apart from homophoric and exophoric reference, the remaining kind of presuming reference is endophoric reference of which the three main kinds are: anaphoric, cataphoric and esphoric. The first two are easy to understand, while the third needs a little elaboration. It is where the referent occurs in the phrase immediately following the presuming referent item. In this abstract, take 'the perspective of grammatical metaphor and text' as an example. The definite article 'the' tells us that we know which perspective (it is a presuming reference item), but rather than need to look back to an earlier part of the text to discover which perspective, we are immediately told which one in the following part of the nominal group 'of grammatical metaphor and text.' This kind of reference occurs within the same nominal group, not in another clause. Therefore, it is closely related with the embeddings or the qualifiers of the nominal groups. In Abstract 1, the nominal groups are analyzed in details. The results, which show a high frequency of Thing Qualifier structures, also demonstrate high frequency of esphoric reference. (Six instances out of eight clauses) In Abstract 2, the high frequency of esphoric reference, in turn, demonstrates that the noun phrases in the abstract are heavily loaded with information in order to achieve informational condensation and to increase lexical density. The findings of reference analysis in Abstract 2 supports Eggins' claim that 'written reflective text will involve very little exophoric reference but very high reliance on endophoric reference, with esphoric reference a common type.' (Eggins 1993: 100)

However, there is a distinctive difference in reference between Abstract 2 and Abstract 1. In Abstract 1, the main concern is with 'a construct of involvement in L2 language learning'. When it is first introduced, the writer uses a presenting reference --'a construct'. The later appearing 'the construct' is interpreted as 'the construct' proposed earlier in the text. However, in Abstract 2, 'the pseudo-cleft sentence' is generic and equally well interpreted as 'any pseudo-cleft sentences' rather than 'the pseudo-cleft sentence' mentioned earlier. This shows the different motifs of the two

papers that the two abstracts represent. The source paper of Abstract 1 is mainly concerned with the introduction and evaluation of a construct that the writer would like to propose, whereas the source paper of Abstract 2 is to investigate any pseudo-cleft sentence as a generic phenomenon, although the study must be based on individual case analyses.

Taxonomic lexical relations found in Abstract 2 are presented in Fig. 2-1.

Figure 2-1. Taxonomy in Abstract 2.
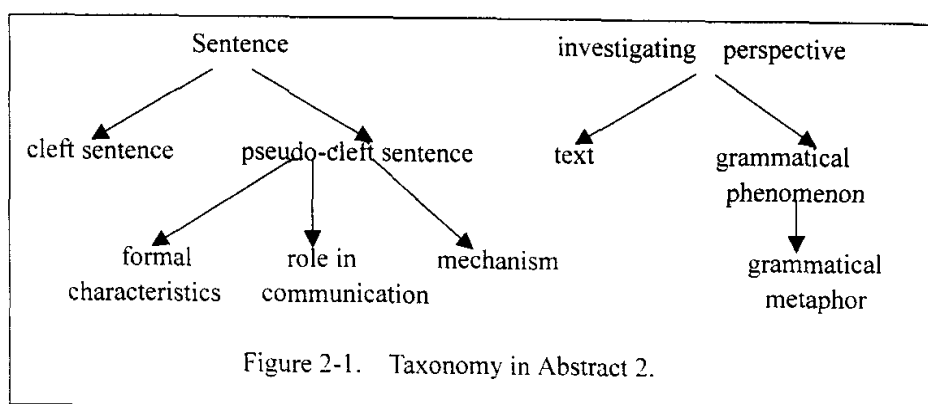
Thus, the experiential meaning of Abstract 2 is laid bare. The abstract is mainly concerned with the topics of the source paper---the pseudo-cleft sentence, its formal characteristics, its nature as grammatical metaphor, and its relationship with text.

Theme

The Themes in Abstract 2 are summarized as follows:

Clause 1:	Previous research on the cleft sentence (T1)
Clause 2:	(previous research) (T2)
Clauses 3-4:	Based on its formal characteristics (T3)
Clauses 5-6:	It is argued that (interpersonal Theme) as a grammatical phenomenon (T4)
Clause 7:	The examination of the pseudo-cleft sentence (T5)
Clause 8:	thus (textual Theme) (the examination) (T6)

The properties of the summarized Themes are not so simple as those in Abstract 1. In terms of grammatical properties, the range is broad: grammatical metaphor (T1, T5),

ellipted Theme (T2, T6), clause Theme (T3), interpersonal Theme (T4), marked ideational Theme (T4), textual Theme (T6), and T4 and T6 are also multiple Themes. In terms of lexico-semantic properties, the types are abstract concepts (T1, T5) and manner (T3, T4). The diversity in Theme categories appears to be a realization of a carefully written mode. The writer gives the text a higher degree of thematic complexity. The writer has planned the rhetorical development of the text to allow for the foregrounding of circumstantial information (T3, T4)which serve to limit the scope of what follows in the proposition, making it as accurate as possible. The choice to make interpersonal elements thematic (T4) complements the realization of interpersonal meaning as it contributes to realizing the less authoritarian tenor of the abstract. One hypothesis articulated by Fries concerning Theme in text is: the experiential content of Themes correlates with what is perceived to be the method of development of a text. (Cited in Fries 1995) This hypothesis concerns the relation between the experiential content of the Themes of a text and readers' interpretation of that text. The findings in Abstract 1 and Abstract 2 may quite support this hypothesis, as the two differ in the method of development. Abstract 1 seems to develop its point simply by focusing on 'the paper' as a product, and that simple development correlates with the fact that five of the seven topical Themes refer to 'the paper' itself. Abstract 2 takes a more complex approach to the task of introducing the paper and presents the paper as a process in which many 'participants' take part. This impression of complexity correlates with the more complex semantic patterning in the experiential content of the Themes. No Themes refer to the paper; instead, they refer to previous research, the basis of the paper, the nature of the pseudo-cleft sentence and its examination.

As for the thematic progression pattern, Abstract 2 also displays difference from Abstract 1. The primary pattern in Abstract 1 is a parallel thematic pattern, with a more stepwise structure embedded. By contrast, in Abstract 2, the thematic progression on the whole is a simple linear Theme pattern, with two little parallel patterns embedded. (See Figure 2-2) The difference in thematic progression pattern also reinforces the finding that Abstract 1 is more indicative or paper-oriented; while

Abstract 2 is more informative or content-oriented. In other words, the topic in Abstract 1 is mainly the paper; while in Abstract 2 the topic is the research enterprise.

Figure 2-2. Thematic progression in Abstract 2.
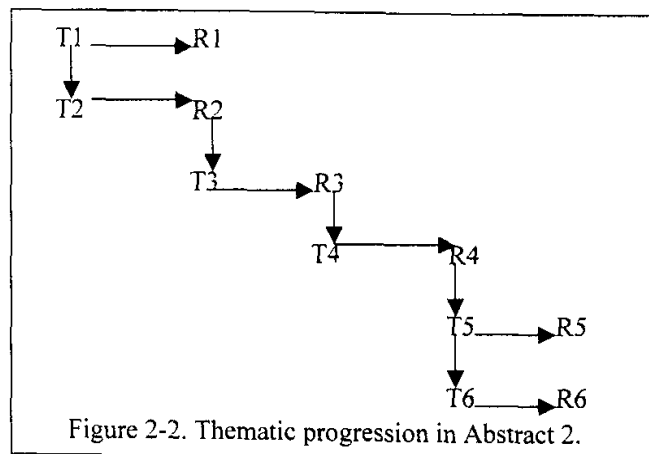
Of course, for the linear thematic pattern here, the Theme is not the exact Rheme part of the preceding clause. The Rheme part contains so many potential Themes that it must be split. It is more appropriate to say the Theme is derived from the preceding Rheme or at least related to it.

Mood and modality

As far as the interpersonal meaning is concerned, the similarity between Abstract 2 and Abstract 1 outweighs the difference. Firstly, all the clauses are also of full declarative type. Secondly, the writer mainly uses simple present tense except one case of present perfect tense (past in present) for introducing the limitation of previous research. The function of the simple present tense is to show the objectivity of the statements. Thirdly, all the clauses are positive as for polarity. Even if there are negative meanings, the writer achieves them by wording, such as 'confined to' and 'neglect', which at the same time achieves the effect of economy in words. Fourthly, the choice of the impersonal agency and the passive constructions also shows that the writer withdraws behind. Fifthly, no attitudinal epithets are found in Abstract 2 and a same verbal group complex functioning in making interpersonal meaning is spotted--- 'make an attempt to investigate'. Lastly, the appearance of those abstract concepts and technical terms assumes an understanding and competent prospective reader. However, in terms of modality, or hedging resources, Abstract 2 displays a wider range. This

can also be accounted for by the finding that Abstract 1 is more indicative. Since the writer is mainly telling the reader what the paper has done namely what he himself has done in the paper, the writer must be quite sure about that. Therefore, fewer modality resources are applied except for the report verbs. In Abstract 2, more claims are made instead of reporting what the paper has done. The usuality adjunct 'often' indicates that the claim offered is qualified in terms of usuality. The value is quite low on the scale.

always-----------usually----------sometimes----------seldom-----------never

  (high)   (median)   (low)   (median)   (high)

As shown above, the first line ranges from the most usual to the least usual, but as for value, or certainty of the proposition, the least occurs in the middle. 'Often' locates somewhere between 'usually' and 'sometimes.' The value of the modal verb 'could' is also quite low. Other hedges in Abstract 2 are: based on its formal characteristics, it is argued that, paving the way for further study. When the basis of research is made a point of, or when the need for further study is mentioned, the writer is often less sure but more cautious.   Although there are no overt attitudinal epithets, we can still sense the writer's evaluation concerning the worth of his own work and the work of other researchers. In academic writing, the expression of value is often implicit. The words 'be confined to' and 'neglect' suggest the negative attitude towards to the previous research with due respect to the researchers. The clause 'paving the way for further study' shows the significance of the paper. Thus, in spite of the absence of attitudinal lexis, the writer's attitude can still be clear. Interestingly, by looking at the introduction of the writer in the footnote, we learn that the writer is only a 25- year-old assistant lecturer in a university. There are sufficient reasons for him to sound so cautious, balanced, and humble especially when he is challenging some previous research.

Register

The 'contextual configuration' of field, tenor and mode in Abstract 2 is quite similar with Abstract 1, especially in tenor and mode.

 (1) Field (a) General: an abstract in linguistics. Task: introducing the paper

(b) Specific: an abstract of a paper investigating the pseudo-cleft sentence from the perspective of grammatical metaphor and text. Task: informing the reader of the main contents of the paper.

(2) Tenor: Young scholar and scholarly readers, a quite equal in-group status relationship. The writer takes no part in the text. The value of the modality is quite low.

(3) Mode: Language role: constitutive   Medium: written, well-planned

Channel: graphic   Characteristic: nominalization & esphoric reference

From Abstract 3, the analysis and explanation of texts will not be as detailed as the ones carried out in Abstract 1 and Abstract 2 because of space limit. However, more analyses are presented in order to demonstrate some common realizing patterns on the one hand, and to show the variety abstracts display on the other.

Abstract 3

*①Cognitive linguistics is an approach to the study of natural language that focuses on language as an instrument for organizing, processing, and conveying information. ②As a novel approach or school, cognitive linguistics will unavoidably **result in** some misunderstanding. ③In order to **clear up** these misunderstandings, ④this paper **attempts to explicate and discuss** several issues, ⑤which **include** the philosophical bases and working hypotheses of cognitive linguistics, its uniqueness in cognitive science, and its social and pragmatic dimensions.*

(Source: ***Journal of Foreign Language*** 2/2001, P.29)

Transitivity

Five clauses are identified and numbered for ease of reference. Clause 1 is a relational process and so is Clause 2 where 'result in' is a lexicalization of causal relations. Clause 5 is also a relational process but differs in the fact that it is possessive type, while the former two are intensive and circumstantial respectively. Clauses 3-4 are both verbal processes. The Sayer for the two processes is 'this paper' and the processes do not have projected parts. This shows the writer is only indicating what the paper has said. By the relational processes, the writer is informing us some of his

claims, or background knowledge related to the topic of the paper. The ratio of the different processes is like this: Relational process---60% and Verbal process---40%. This shows the abstract is not so indicative as Abstract 1 and not so informative as Abstract 2. It is located in between. As for the participants, we can easily see that all are nonhuman. They are largely abstract concepts.

Nominalization and nominal groups

Nominalization is the main device to achieve the impersonal style in Abstract 3. Examples of nominalization are: *approach, study, instrument, information, misunderstanding, bases, hypotheses, uniqueness, and dimensions*. With *approach* and *misunderstanding* occurring twice, the total number amounts to eleven. On average, the occurrence of nominalization per clause is 11/5=2.2. Many of these nominalizations also serve as the so-called advance labeling for the source paper. For example, the reader might be interested in getting to know: What are the **misunderstandings**? What are the **bases** and **hypotheses**? And how is cognitive linguistics **unique**? Nominal groups in this abstract are distinctive with the heavy embeddings. Notice the nominal group in Clause 1:

an **approach** to the study of natural language that focuses on language as an

D　　　T　　　Q[D　　T　　Q[　C　　　　T　　]] Q [　　　　　　　　　　D

Instrument for organizing, processing, and conveying information

　　T　　　　Q[　　　　　　　　　　　　　　　　　　　　　]]

For the pre-modifiers of the nominal groups, the majority are Classifiers: *cognitive, philosophical, working, social, pragmatic...* With all these nominalizations and heavily embedded nominal groups, the lexical density of the clause must be high, which rises to 42/5=8.4.

Cohesion

Reference analysis is summarized as follows:

① the study –of natural language (S)

① cognitive linguistics--- ② cognitive linguistics--- ⑤ cognitive linguistics---its uniqueness---its social and pragmatic dimensions

② some misunderstandings--- ③ these misunderstandings

④ this paper (X)

⑤ the philosophical bases and working hypotheses –of cognitive linguistics (S)

The taxonomic relations between the participants in Abstract 3 are outlined in Figure 3-1.

Figure 3-1. Taxonomy in Abstract 3
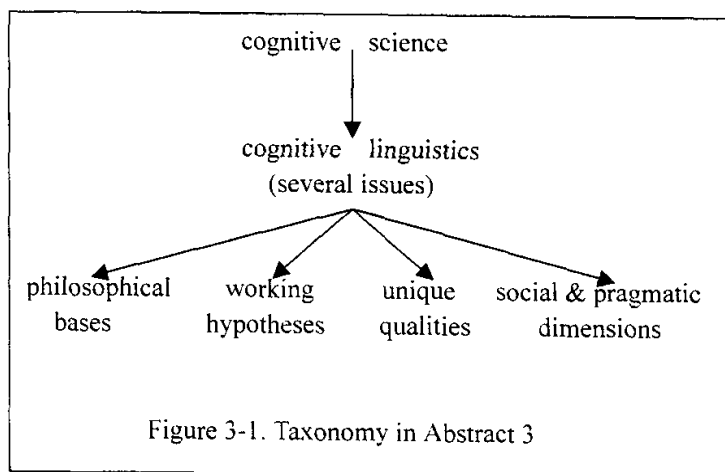
So far, we come to see clearly the experiential meaning of Abstract 3 and how it is realized in transitivity and vocabulary. Abstract 3 is an introduction of a paper whose study focus is on theory ---a school of linguistics that is widely misunderstood. It is a kind of study on study.

Theme

The Themes in Abstract 3 are identified as follows:

  T1   cognitive linguistics

  T2   as a novel approach or school

  T3   in order to clear up these misunderstandings

  T4   which

Among the above four Themes, two are marked ones. T2 is a Theme indicating the role of cognitive linguistics; T3 is one indicating the purpose of the source paper. The two elements are thematized in order to direct the reader's attention to the coming new information within a certain scope, and at the same time get related to the

preceding Rheme. The thematic pattern is typically a linear pattern. By drawing on this pattern, the writer leads the reader logically and smoothly towards the topic of the source paper in R4. The progression pattern is shown is Figure 3-2.

Figure 3-2. Thematic progression in Abstract 3
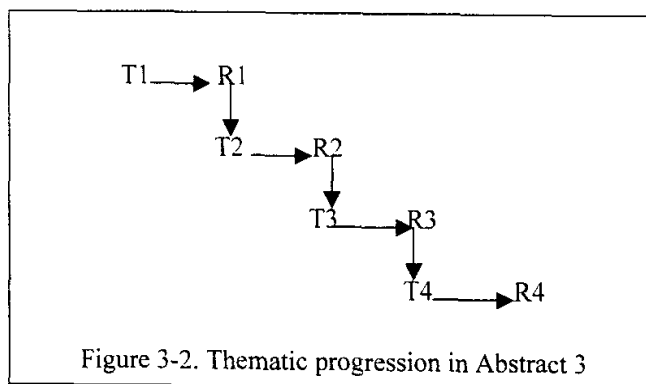
Mood and modality

As far as mood is concerned, Abstract 3 displays overwhelming similarity with Abstract 1 and Abstract 2 in the choice of declarative clauses, simple present tense and positive polarity, the function of which I will not repeat here. In the writer's relations with the reader, we can see he tries not to get involved in the process by assigning the responsibility to 'this paper'. In his relations with the propositions in the text, or rather his attitude and certainty, we find such hedging resources in Clause 2: ...*will unavoidably*... 'Will' is a verbal modality realization of probability. Its orientation is subjective and implicit and its value is median. 'Unavoidably' is a mood Adjunct of probability with high value. This use of objective modality reinforces and strengthens the meaning made subjectively through the modal verb. In expressing modality, modal verbs tend to cooperate well with mood Adjuncts, such as 'might possibly', 'will definitely' and 'will unavoidably' in this case. They do not exclude each other. Another hedging resource found in this abstract is the frequently used verbal group 'attempt to do' or its variant 'make an attempt to do' in Abstract 1 and Abstract 2. However, this verbal group is inappropriately used in Abstract 3. It functions well with the first verb 'explicate' as the verb implies difficulty. 'Explicate' means explaining something in detail in order to make it clear. The writer might not be very sure about whether he can achieve the end. The reader is the person to

evaluate whether the job is successfully done. However, the second verb 'discuss' is quite another story. It does not impose any constraints nor any prospective achievements on the writer. He is not committed to any outcome of the doing. People do not usually attempt to 'discuss' something, as discussion is not something so difficult as to make people try their best. In my opinion, this use of hedging is unnecessary and quite affected. It is suggested that the verb 'discuss' should be deleted. Although the writer applies little attitudinal language, his attitudes towards cognitive linguistics can be sensed. In his evaluation, it is a newly developed approach and it is unique in cognitive science. At the same time, he holds negative attitude towards some claims in the academic circle, as he calls them 'misunderstandings'.

Abstract 4

*In China, ① almost 800 papers **have been published** on Fuzzy Linguistics since 1797 ② and an integrated system of Fuzzy Linguistics research **has been set up**. In this paper. ③developments of Fuzzy Linguistics in China **are reviewed**, ④ characteristics and problems in China's Fuzzy Linguistics research **are analyzed**, ⑤prospects and suggestions for future Fuzzy Linguistics research in China **are also put forward**.*

(Source: ***Foreign Language Teaching and Research*** 1/2001, P.7)

Transitivity

In examining the process types of Abstract 4, we find the first two clauses are of material process in paratactic relation of extending. However, both are not action processes. They appear to be more like event processes. Clause 3 and Clause 5 are verbal processes, while clause 4 is a mental process of cognition. Although, it is differently labeled from Clause 3 and Clause 5, the three processes are quite similar. As mentioned above, in academic writing, especially in abstracts, verbal processes are exquisitely blended with mental processes. The verb 'review', also appearing in Abstract 1, means looking back at something or re-examining something (mental) and making comments on it (verbal). For the process of 'analyzing', one has to exert some

cognitive efforts, and has to realize this mental process in the verbal process by expressing it in words. (writing it down)   The proportion of the different processes in Abstract 4 is presented as follows:

Material process---40%   Verbal process---40%   Mental process---20%

As I said above, the mental process and verbal process here are of the same function. Therefore, taken as a whole, they take up 60% of the transitivity.   Not projecting any information, they are used to indicate the main topics covered and the research focus in the source text. The two material event processes provide us with the background information of the research, or rather, the status quo of Fuzzy Linguistics. On the whole, Abstract 4 is mostly indicative. We get to know the area in which the writer is about to give his findings and opinion, but are held in suspense for his specific findings and opinion.

All the participants are nonhuman too. The impersonal style is achieved by applying the two usual devices: passive voice and nominalization. The ergative analysis summarizes the relations between Mediums and Processes:

Medium/Subject	Process
Papers	publish
System	set up
Development	review
Characteristics and problems	analyze
Prospects and suggestions	put forward

As summarized by Halliday(1994a : 165), the ergative function Medium is equivalent in material process to Actor(middle), Goal(effective); in verbal process to Sayer(middle), Target(effective); and in mental process to Senser. For the mental process, Halliday did not mention the participant Phenomenon. Maybe, we could add 'Phenomenon (effective)' to the above summary. In this abstract, 'papers' and 'system' are both Goals in material processes. They are highlighted to conceal the human factors. Who published those papers and who set up the system do not count so much as the papers and the system proper. 'Developments' and 'prospects and

suggestions' are Targets, and 'characteristics and problems' is Phenomenon. These participants represent the targets or the phenomena at which the writer aims his source paper. As pointed in the preceding three abstracts, the third person is usually favored in abstracts. Abstracts 1-3 adopt the same device, the so-called 'collapsed structure' (Swales 1990) with 'the paper' or 'this paper' as the inanimate Sayer or Senser. The more congruent form will be 'in this/the paper, I (the writer)...' However, in Abstract 4, we find 'in this paper' as circumstance of place, but we still do not come across the pronoun 'I' as the animate Sayer or Senser of the verbal processes and mental processes. This owes to the extensive use of passive voice in which the human factor can be withdrawn. Abstract 4, therefore, goes a step further than Abstracts 1-3 to totally ignore the reference to the writer.

Nominalization

The instances of nominalization found in Abstract 4 are: *system, research, development, characteristics, prospects, and suggestions.* The average occurrence of nominalization is 8/5=1.6 per clause. The nominal groups in this abstract all have Fuzzy Linguistics as their Qualifiers. The lexical density is 34/5=6.8. Compared with Abstract 3, the degree of nominalization and the lexical density are both a little lower in Abstract 4. This might suggest two things. First, Abstract 3 is more informative and sophisticated than Abstract 4. Second, the degree of nominalization has an effect on the lexical density. Other things being equal, the higher the degree of nominalization, the higher the lexical density.

Cohesion

The only reference chain found in Abstract 4 centers around *Fuzzy Linguistics research*, which is the main concern of the source paper. In this regard, like the source paper of Abstract 3, it is also a study on study. The other use of reference is a familiar one: this paper (X). Lexical cohesion, therefore, takes the most responsibility for creating cohesion in this abstract.

Repetition: Fuzzy Linguistics, research, China   Synonymy: prospect---future

Collocation: development---review, problem---analyze, paper---publish, system---

set up, suggestion---put forward

Collocation is most noteworthy here. It is a main type of lexical cohesion, also called **expectancy** relations. (Eggins 1994) Expectancy may operate between a nominal element and a verbal element. The relation may operate between an action and the typical (expected) 'doer' of that action, or the relation may operate between an action/process and the typical (expected) participant effected by that action. As Abstract 4 consists of five clauses all in passive voice with no 'actor' at all, the expectancy relations are of the latter kind. For example, the expected participant effected by the action 'review' must be something already there, something that has happened, in this case 'developments'. 'Prospects' or 'future' can never be 'reviewed'. Abstract 4 is an introduction of a paper studying the retrospect and prospect of Fuzzy Linguistics in China.

Theme

Thematic position is exploited in different ways. Some Themes are used to globally structure the text. In Abstract 4, the two Themes 'In China' and 'In this paper' could be referred to as **global Themes.** (Martin 1983:78)   They have the effect of dividing the abstract into elements of schematic structure. The Theme 'In China' sets the following clauses as a whole in space. 'In this paper', however, shifts the following clauses to another setting---a much more specific 'place'. The other Themes found in this abstract are presented as follows:

T1	almost 800 papers	T2	an integrated system
T3	developments	T4	characteristics and problems
T5	prospects and suggestions		

These could be regarded as **continuity Themes**. (Martin 1983:78) Basically they reflect the experiential focus of different section or topic of the source text. They are all related to a same topic---Fuzzy Linguistics research in China, which is actually the Qualifier of all these Themes. Therefore, the thematic progression patterns for these continuity Themes may be viewed as an instance of a progression with derived Themes mentioned in Figure1-4 in Abstract 1. The thematic progression pattern will be outlined in Figure 4-1.

Mood and modality

In terms of clausal type, polarity, we find great similarity with the first three abstracts. As for tense, it is also primarily simple present. However, two instances of present perfect are adopted in order to show the past in present as background information. We find little modality resources here in this abstract except the use of 'almost', which mitigates the writer's responsibility in the exactness of quantity and the use of nominalization (suggestion) of the reporting verb 'suggest', which denotes the writer's modesty and uncertainty as to the claims he makes about the future of Fuzzy Linguistic research in China.

Figure 4-1. Thematic progression in Abstract 4
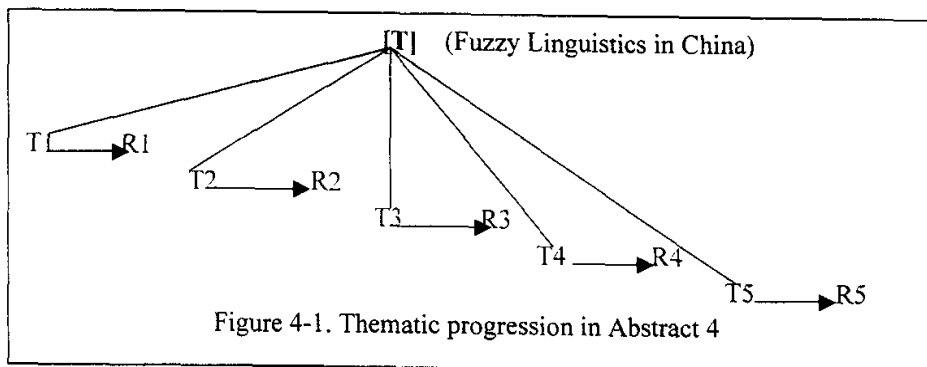
Abstract 5

*①Output activities will not only **raise** the learner's awareness of the target forms, ② but **is** also a process in which the learner formulates and tests his hypotheses on the target language and one in which he reflects on forms. ③Such processes will **facilitate** the restructuring of the learner grammar. ④Furthermore, output in a second language **is** a process of automaticity, ⑤which will **be achieved** mainly, if not solely, through using the language itself. ⑥Mini-talk, as we define it, **is** an intensive type of output activity with much higher cognitive and linguistic demands than daily conversations. ⑦Through practice for more than one year, the learners in question **felt** substantial improvements in oral presentation as well as in creative thinking.*

(Source: ***Modern Foreign Languages*** 1/2001, P.61)

Transitivity

In this abstract, there are altogether seven clauses. Not accidentally, the first six clauses are all of relational process. Clauses 2, 4, and 6 are the typical intensive type in attributive mode. Clauses 1, 3, and 5 are typical instances of relational process with verbs lexicalizing logical-semantic relations. It is the pattern that Halliday argues to be the dominant grammatical motif in modern scientific English. Here, *raise, facilitate*, and *achieve* are examples of lexicalization of causal relations. Although in the same category, they are not entirely synonymous, since they imply other meanings such as degree and ease. For the remaining clause 7, the process *felt* is overtly a mental process; it functions here as a grammatical metaphor, referring to a change of state. So, in other words, we have a relational process element in what is overtly presented as a mental process. The congruent relational process could be worded as ` the learners in question **became** much better in ...` Compared with the metaphoric mental process *`felt substantial improvements`*, it appears to be simple, less formal and less prestigious. If we regard the last clause also as relational process, Abstract 5 thus displays 100% relational process. As I mentioned earlier, abstracts shunt along a scale from the most indicative to the most informative. Abstract 5 can be positioned at the latter extreme. Unlike the preceding four abstracts, the writer of Abstract 5 makes no reference to the paper. In other words, there is no reporter present either human (the writer) or nonhuman (the paper) in the abstract. Rather, the writer is reporting the gist of the paper freely and directly to the reader instead of using sentences like '***The paper examines** the functions of output activity in Foreign Language learning.*' or ` **In this paper**, the functions of output activity **are discussed**.` To some extent, Abstract 5 is much like the so-called 'free direct speech` in a condensed form without the introductory reporting clause.

Nominalization and nominal groups

Nominalization remains the feature of commonality between abstracts in Abstract 5. The **nominalization density** of the abstract is 14/7=2. These nominalizations have the similar functions. They make the 'buried reasoning' possible, linked by verbs like `raise, facilitate, and achieve`. They increase the lexical density of the text (56/7=8)

and decrease the grammatical intricacy. Eggins (1994) compares the grammatical intricacy between different texts in terms of **grammatical intricacy score**. In order to work out the score, she divides the number of clauses by the number of sentences in the same text. The grammatical intricacy scores of the two texts she selects, one in written language and the other in spoken language, are 2.6 and 5.6 respectively. Here, we find even a lower score for Abstract 5: 7/5=1.4. The nouns in Abstract 5 are also heavily loaded with information by Qualifiers either in the form of prepositional phrases (*of the target form, on the target language, of the learner grammar, of automaticity...*) or embedded relative clauses. (*in which the learner...*) Moreover, the majority of pre-modifiers turn out to be Classifiers: *output, target, learner, second, cognitive, linguistic, oral* and *creative*.
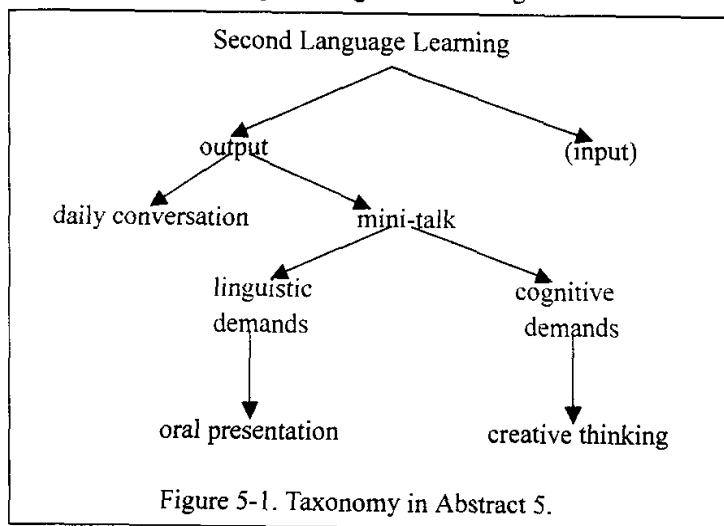
Cohesion

In this abstract, we find an example of substitution and one of conjunction. 'One' in Clause 2 substitutes 'process'. 'Furthermore' is an explicit conjunction of addition. It is internal, concerning the rhetorical organization of the text rather than external, concerning the relations between events in the real world. Reference in Abstract 5 is presented as follows by using the usual key:

①the learner (H)---②the learner---his hypotheses---he---③the learner grammar
①the target forms (H)---②the target language ②a process---one---③such processes
③the restructuring –of the learner grammar (S)   ④a second language---⑤the language itself   ⑥mini-talk---it   ⑦the learners –in question (S)

A special explanation is needed for the two 'learner' chains. 'The learner' in the first chain is homophoric. We assume there must be a learner in output activities involved in language learning. It refers to any learner in the learning process. However, 'the learner' in the last chain is esphoric. 'The' suggests that we know which learners, and the qualifier 'in question' tells us immediately, i.e. the learners who were involved in the more-than-one-year practice mentioned earlier.

Collocation in this abstract demonstrates that lexical items cluster in different ways in text depending on their relationship to the situation of which the text is a part. In other words, the significantly meaningful features of each lexical item are

conditioned by the text and its context. In this abstract, which is for a paper on linguistics, the word 'output' collocates well with concepts like 'a second language, the learner, mini-talk, daily conversation, practice, and oral presentation'. All this concerns the productive ability of the learner against the receptive ability that responds to input. If in a factory report, the word 'output' is more likely to collocate with concepts like 'high, low, yearly, average, cost...' The taxonomy, complemented with the reader's world knowledge, is diagrammed in Figure 5-1.

Second Language Learning

output   (input)

daily conversation   mini-talk

linguistic demands   cognitive demands

oral presentation   creative thinking

Figure 5-1. Taxonomy in Abstract 5.

So far, we come to see clearly the experiential meaning of Abstract 5. It is a condensation or a summary of a paper, commenting on the functions of output activity, especially mini-talk in second language learning.

Mood and modality

As far as clausal type and polarity are concerned, Abstract 5 displays features of commonality. However, it frames time in two dimensions rather than one. In the first six clauses, the writer construes time as now. There are two kinds of fact in the real world. Some are accepted as general truths where simple present tense is used. Others are facts of the past events where past tense is more appropriate. The framing of time of the last sentence (**felt**) constructs the event as being one that is done. It creates the expectation that the *improvements* are something that really occurred before now. They are not something anticipated or imagined, thus appearing to be more

convincing. This reminds us that Abstract 5 distinguishes itself from the first four in that its source paper is experiment involved. The writer's argument is largely based on the results of some experiment of a certain period of time, in this case, more than one year. When reporting the results of the particular experiment or some field study, past tense is often applied in order to sound more certain and convincing.

For modality, 'will' is used three times in this abstract. In terms of type, it is modalization of probability; in terms of orientation, it is subjective and implicit and in terms of value, it is median. Not surprisingly, 'will' is used in the three relational processes of causal relations. These instances of modality deal with the writer's assessment of the probability of the realization of the logical causal relations between the two participants. His attitude is not so certain as to avoid the use of modal verbs. Compare the original modalized ones with the following, which definitely sounds more certain. In fact, nothing can sound more certain even if the writer applies modal verbs of the highest value (must) than the following statements: *Output activities raise the learner's awareness...Such processes facilitate the restructuring of the learner grammar ....automaticity is achieved through using the language.* Halliday points out that 'the importance of modal features in the grammar of interpersonal exchanges lies in an apparent paradox on which the entire system rests---the fact that we only say we are certain when we are not.' (Halliday 1994a: 362) So even if a high value probability of whatever orientation is added, it means the writer is admitting an element of doubt.

Apart from the modal verbs, some adverbs of degree are used: *mainly, if not solely*. Also we find instances of attitudinal lexis, for example, the two epithets 'substantial' and 'intensive'. Adjectives are also generally gradable since they can be used in superlative and comparative structure, in this abstract, 'higher'. All this signals the writer's position and evaluation. Another point needs mentioning is the use of the pronoun 'we'. When 'we' is used in abstracts, or more broadly, in academic writing, it may be in three situations. Firstly, 'we' may refer to the writers in a multi-authored paper. Secondly, the editorial 'we' may include the writer and the reader, something like 'you and I'. However, in this abstract, 'we' refers to neither of the two

cases mentioned above. Here, it is rather a type of hedging. It includes the writer and some other researchers. The writer seems to imply that the definition is not such as 'I' make alone, but some other researchers also think in the same way, thus lessening his responsibility in defining the term 'mini-talk'. It strengthens the truth-value of his statement and increases his status as an author.

Abstract 6

①*Among many pragmaticians interested in social pragmatics, there is a widespread negative attitude towards the kind of research that can perhaps be loosely characterized as Neo-Gricean.* ②*In this article, I **examine and refute** some of their claims in particular that issues of gender, power, social status, and institutional roles falsify the claims of Neo-Gricean pragmatics, particularly in relation to the claim of universality and that evidence from isolated sentences outside of context is unacceptable.* ③*Furthermore, I **advocate** an approach to pragmatics that can be labeled as the 'live and let live' approach.* ④*In all, I **defend** my belief that both the Gricean and the social approaches have significant contributions to make and that both fields have much to gain from working with, rather than arguing against one another.*

(Source: *Linguistics Abstracts* Vol.15. No.3 1999, P.389)

Transitivity

In this abstract, the first clause is an existential process, which can be viewed as a relational process. Martin (1983), in the analysis of an expository text, takes existential process as a type of relational process together with the other two types: identifying and attributive. So does Stillar (1998). He classifies relational processes into two main kinds: **duo-relational** processes that involve two participants, like Identified and Identifier, Carrier and Attribute; and **homo-relational** process involving only one participant, like existent. In this clause, the existent is 'a wide spread negative attitude.' The second clause is a combination of mental (examine) and verbal (refute) process 'with some of their claims' as Range.   The last two are both

verbal processes. Therefore, the ratio of different process types is like this:

Relational process: 25%   Verbal process: 75%

According to my preceding analysis, the more relational processes there are in an abstract, the more informative it is. Or, the more mental/verbal processes there are, the more indicative. So we can thus decide this abstract is largely indicative. However, the verbal processes in Abstract 6 have their distinctive features i.e. they have projections embedded. (*the claims in particular that...* and *my belief that...*) Besides entering into paratactic and hypotactic clause complexes, projections can be 'rank-shifted' to function as Qualifiers within a nominal group. Such instances are still projections; but here the projecting element is the noun that is functioning as Thing. (Halliday 1994a: 263) We have to perfect our former classification by adding a sub-category. When there are mental or verbal processes in the text, a further step must be taken to find out whether there are accompanying projections, either hypotactic or embedded. The text turns out to be more informative when the answer is positive. If we go on to examine the transitivity of those embedded projections, we find the two locutions (claims) are of relational process. The process *falsify* can be interpreted as a causative relational process in the meaning of *prove...wrong*. Therefore, *the claims* becomes the Carrier, *issues* the Initiator and *wrong* the Attribute. The two ideas (belief) are of possessive relational processes with the verb 'have'. We can also view them as material processes with the verbs: 'make' and 'gain'. Anyway, they deal with the relation between the Gricean and the Social approaches. All this reciprocal relation is portrayed as relatively autonomous---as a vibrant, exciting swirl of activity not under anyone's direction or control.

Nominalization and nominal groups

In terms of nominalization and nominal groups, this abstract is no exception in that it is heavily nominalized with nouns heavily embedded with Qualifiers, and among the pre-modifiers the majority are Classifiers. The three usual corresponding indices are shown as follows: lexical density 48/4=12; nominalization density 11/4=2.75; and grammatical intricacy score 4/4=1. It has reached the lowest grammatical intricacy score possible.

Cohesion

First we present the results of reference analysis:

①many pragmaticians---②their claims

②this article (X)

②I (X)---③I---④I

②the claims --of Neo-Gricean pragmatics (S)

②the claim --of universality (S)

④the Gricean and the Social approaches (H)---④both fields

Lexical cohesion also plays an important role in this abstract. For word collocation, part of the picture can be shown by the taxonomy presented in Figure 6-1.

Figure 6-1. Taxonomy in Abstract 6
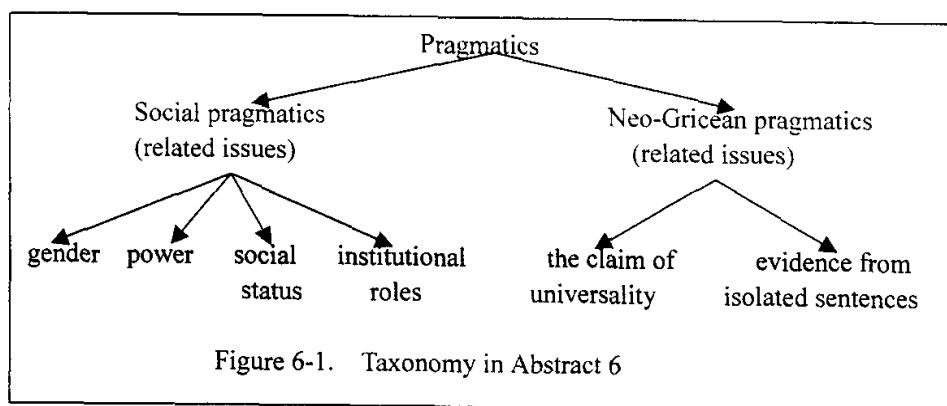
The two conjunctions 'furthermore' and 'in all' need our special attention. Unlike the 'furthermore' in Abstract 5, they are not internal but external. They appear to be happening internally in the process of abstracting the paper. In fact, these adjuncts orient the reader to the topics touched upon in the source article in a chronological order. In other words, 'I' in this abstract refers to the 'I' who has written the article not the 'I' who is writing the abstract, although they are unquestionably the same person. The writer is telling the reader about the events in the real outside world (the paper). They have ideational meaning other than textual meaning. It is true that the relations are between the steps in an argument, but the argument is within the paper not within the abstract. This also reinforces the argument that this abstract is largely indicative.

Theme

The analysis of Theme highlights one semantic area in this abstract: circumstances.
The Theme segments are summarized as follows:

T1	Among many pragmaticians	T2	In this article
T3	Furthermore	T4	In all

Obviously, these four Themes are all marked ones but in two different ways. We
talked about the latter two in the section of cohesion. The first two are circumstances
of location. The writer is contrasting his attitude 'in this article' with the negative
attitude 'among many pragmaticians'. These two Themes can be labeled as global
Themes mentioned in Abstract 4.

Mood and modality

The subjects in this abstract are especially noteworthy. In the four declarative clauses,
three have 'I' as the subject. We have found in the preceding five abstracts that the
writer usually withdraws to the background. All are written from the third person
perspective. This is achieved by adopting a non-human rhetor in the so-called
collapsed structure (Abstracts1, 2, 3) or by passive voice (Abstract 4) or by reporting
the contents directly without reference to the paper or the writer (Abstract 5).
However, this depersonalized character of abstracts is not absolute. There are
occasional abstracts, like Abstract 6, in which the writer adopts a personal stance. By
scanning through all my data, the use of third person in abstracts is of course
dominant, but the percentage of first-person perspective is by no means negligible.
The following is the statistics I got on a rather limited scale, which can at least be
suggestive.

Journal	Total number of abstracts	Number of abstracts Using first person	Ratio
Applied Linguistics (2001, Nos.1-2)	10	2	20%
Foreign Languages and Their Teaching (2001, No.1)	15	0	0%
Journal of Foreign Languages (2001,No.2)	16	1	6.2%
FL Teaching and Research (2001, Nos.1-2)	15	2	13.3%

Modern Foreign Languages (2001,No.1)	9	2	22.2%
Linguistics Abstracts (1999, V.15,No.3) (Pragmatics and Discourse Analysis)	84	36	42.8%
Total:	149	43	28.8%

The choice of first person in abstracts is a strategic matter. It does not make the text informal. It has a lot to do with the interpersonal meaning of the text. According to Hyland(1996), it is a form of reader-oriented hedging. Personal hedges are means of creating a suitable modesty for academic discourse. Those impersonal forms are writer-oriented hedging. They create an impression of greater objectivity, but for those articles (like the source paper for Abstract 6) whose aims are to openly challenge the theory or opinion of other researchers', writers tend to do so in a more committed way, using first person pronouns to contrast their views with those of other researchers. Reference to the author's direct involvement in the research is therefore a conscious strategy to mark a position as an individual interpretation. It also marks the claims as provisional, inviting the readers to participate in a dialogue. Refuting others' claims and advocating a new approach is inevitably face-threatening to others. The first-person is used as 'downtoners' weakening the statements. One cannot be attacked by others when what one puts forward is presented as a contribution to a discussion.

Besides personal hedges, there are two understatements by using the modal verb 'can'. It does not indicate 'ability', but the writer's commitment to the truth of what is being said.

Three verbs in Abstract 6 indicate the writer's reason or purpose for writing, and therefore have a positional value. Refute: to say something in order to prove a statement untrue. Advocate: to speak in favor of, support. Defend: to argue for, support the rightness of something. Thus, we can see, through the use of these verbal processes, the writer's evaluation of others' claims and his own approach and belief is expressed implicitly but clearly.

Abstract 7

*①This paper **is divided into** 4 major parts. ②The first part **provides a short account** of the historical development of Austria after World War II ③and **gives an overview** of Neo-nazi and Neo-nazi related activities during the first half of 1992. ④In the second part, I shortly **describe** our methodology and database. ⑤Part 3 **comprises** empirical evidence for the most frequently used linguistic strategies at different textual levels and in different newspaper genres. ⑥The closing section **is devoted to a discussion** of these results.*

General characteristics

On reading this abstract, we come to know very little about the content of the source paper or the opinion of the writer. This is because Abstract 7 is the most indicative one among the seven and should be located at the other extreme of the cline opposite the one Abstract 5 stands for. We then expect to find mostly verbal/mental processes in this abstract, and the result partly supports our expectation: ②provides a short **account** of (verbal),③ gives an **overview** of (verbal), ④describe (verbal), ⑥is devoted to a **discussion** of (verbal). A further point needs to be made for clauses 2, 3, and 6. In these three clauses, the verbal process is realized by some fixed expressions in which nominalizations are involved. The rest two clauses are possessive relational processes. Unlike the typical relational processes found before, they are not statement of the writer's argument or opinion on a certain topic; but statements about the paper proper: how many parts *this paper* has and what is included in *Part 3*. Like the other four verbal processes, they are paper-oriented and turn out to be indicative. To some extent, it is only an expanded table of contents in sentence form. By using Van Dijk's terms, Abstract 7 shows the **superstructure** other than the **macrostructure** of the source paper. A macrostructure is the global meaning of discourse. It is a meaning structure that explains the content. A superstructure is a form structure that explains the construction of the text.

The thematization of 'this paper' is text-exhaustive. Therefore, the thematic progression pattern is the parallel thematic pattern. We have to note the fact that the

constant Themes do not necessarily need to be exactly the same. They can be different parts of the same thing or a paraphrase.

In examining cohesion, we find ourselves in a dilemma to decide whether it is cohesive and coherent. On the one hand, it appears to be cohesive with such lexical strings: ①4 major parts---the first part---the second part---Part 3---the closing part. ②account---overview---describe---discussion. On the other hand, the topics being talked about do not seem to hang together very well. The reader is at a loss to spot relations between expressions like *the historical development of Austria, Neo-nazi and Neo-nazi related activities*, and t*he linguistic strategies at different textual level and in different newspaper genres*. The term 'these results' appears to be anaphoric, but it is, at first glance, ambiguous. Most likely, it refers to the results of those most frequently used linguistic strategies. In order to construct relations between the above mentioned expressions, it is better to have a look at the title and the subtitle of the paper: ˙ The rhetoric of trivialization: The coverage of right wing extremism and neo-nazism in Austria's most read tabloid'. Although abstracts stand apparently before the paper, it is some way from being the first language that we encounter on approaching the paper. An abstract is definitely an 'advance organizer' (Renkema 1993) and so is a title of a paper. The information a title gives is by no means trivial. After referring to the title, we somehow comprehend the relations among the four parts better. The paper is within the field of discourse analysis of the coverage of right wing extremism and Neo-nazism in Austria's most read tabloid (a newspaper genre).

Part Four   Conclusions and Discussion

The analysis conducted in Part Three is further carried out on a wider range. Although all are confined to the limited field of linguistics journal abstracts, the language presents much variety. As Robert De Beaugrande points out in *Register in Discourse Studies* (Ghadessy 1993), 'when we select a register to investigate, we must not expect or demand that we should list **all** the aspects it **must** have, and still less all the aspects it **must not** have.   Instead, we must be content to postulate a register when a representative group of language users agrees that certain aspects are typical and predictable.' In fact, no one has ever succeeded in finding either/or characteristics of the language within a particular cluster of texts. The variety and complexity will not, however, prevent analysts from pursuing. In this part, I endeavor to sort out the various patterns and some typical aspects in abstracts and their corresponding functions, which are to be read as tentative.

1. Previous research findings

Before I make the conclusions, it is advisable to look at what other researchers have to contribute, which will serve as a good basis for comparison with my findings. Concerning the language of abstract, a woman researcher's work is widely cited: Graetz (1985). Unfortunately, I was unable to find the original paper. I learnt from Swales (1990) that Graetz's corpus for her paper, *Teaching EFL students to extract structural information from abstracts* consisted of 87 abstracts drawn from a variety of fields, and she has this to say about the language of abstracts:

> *The abstract is characterized by the use of past tense, third person, passive and the non-use of negatives. It avoids subordinate clauses, uses phrases instead of clauses, words instead of phrases. It avoids abbreviation, jargon, symbols and other language shortcuts which might lead to confusion. It is written in tightly worded sentences, which avoid repetition, meaningless expressions, superlatives, adjectives, illustrations, preliminaries, descriptive details, examples, footnotes. In short it eliminates the redundancy which the skilled reader counts on finding in written language and which usually facilitates comprehension.*

(Cited in Swales 1990: 179)

2. Present findings

First of all, a cline of abstracts with the two endpoints labeled 'indicative' and 'informative' has to be established. An abstract is not simply either indicative or informative. Instead, it is a matter of more or less, with each abstract resting somewhere on the cline.

2.1 Transitivity

In abstracts, there tend to be a large proportion of mental and verbal processes, especially in those more indicative abstracts. These processes enjoy their distinctive features when used in abstracts. Firstly, it is extremely difficult to distinguish between the two; the fuzziness is just where the feature lies. No wonder Halliday presents the six process types in a circle. Stillar (1998) goes a step further to include verbal process as an integral subtype of mental processes. Regardless of the validity of his classification, we have to admit the overlap between these two processes. The world of cognition is mirrored in the world of discourse. The views and opinions we hold are often seen in terms of the way they are expressed; and the things we express are often results of our mental activities. Thus all the verbs in these two processes are in fact located also on a cline, and their two aspects of meaning shade imperceptibly into each other. At one end of the cline, the typical verbs found in the data are: *discuss, describe, propose, explain, illustrate, claim, argue, suggest, comment, refute, account, demonstrate, show, indicate, report on*...At the other end are cognitive processes like *analyse, investigate, study, examine, explore, evaluate, think, believe, focus on*...In the middle of the cline can be located such verbs as *conclude, summarize, stress, observe, review, compare, deal with*, which may refer either to an illocutionary act or a cognitive process. Although taxonomic lexical relations are most frequently expressed in nominal groups, they can also link processes. Yet oddly, for members of a class, i.e. co-hyponyms, there is not always a superordinate term. Secondly, all the mental processes are of cognitive type as opposed to perceptive and affective. Thirdly, the verbal processes never have a receiver. The writer is not telling the reader who has said

what to whom. What counts in abstracts is Range. No human interaction is involved in verbal communication in the abstracts proper.

For more informative abstracts. the relational processes dominate. As implied in the individual text analysis, the types of relational processes appearing in abstracts are varied: attributive, identifying, circumstantial, possessive and existential. Examples of lexicalization of logical-semantic relations as verbs whose primary function is to express relationships between the nominals are most common. They represent the two grammatical motifs argued by Halliday (1994b). There is a certain portion of material processes, which are not used to depict animate physical actions, but to create a sense of objectivity. Material processes are more objective than relational processes, as they portray relations as autonomous without subjective human evaluation.

2.2 Nominalization and nominal groups

Nominalization and nominal groups are a salient feature in abstracts. The nominalization density in abstracts is high, which is around 2 on average. Nominalization functions actively in abstracts. Firstly, we can see it as a condensation of the clause. Being condensed down to a word or group, nominalizations are clearly very economical. This is in line with what Graetz has said: " It...uses phrase instead of clauses, words instead of phrases." Thus the grammatical intricacy score is usually low, generally under 2. Secondly, it allows processes to be objectified, to be expressed without the human doer. Thirdly, nominalized processes are non-finite: they are not tied to any specific time in relation to the time of writing. They are detached from the here-and-now in a way that is not normally possible for a process expressed by a verb. It is therefore inherently generalized and in harmony with the aim of scientific and academic research to establish general truths not tied to specific conditions of time or observer. Fourthly, some instances nominalization work as advance labels predicting future discourse acts in the source paper. Finally, the motivation lying behind some nominalizations is textual concerns. Adjectives and verbs cannot be placed in a thematic position and thus cannot be endowed

with the informational prominence unless they are transformed into nouns.

The nouns including nominalizations in nominal groups are often heavily modified. The writer can thus pack in more lexical content per sentence, since he can count (N), specify (D), describe (E), classify (C), and qualify (Q). The content of text and its lexical density are greatly increased. The average lexical density for abstracts is above 8. This is compatible with Graetz's remark that "it is written in tightly worded sentences..." However, her claim that it avoids adjectives needs contemplation and modification, as adjectives as classifiers are frequently applied. The qualifiers are most important for the nouns in realizing experiential meaning. The writer prefers to use embedded prepositional phrases, defining relative clauses and embedded projections to expand his nouns.

2.3 Cohesion

The key devices for maintaining cohesion in abstracts are reference and lexical cohesion, especially concept taxonomy. Among different types of reference, we find abundant esphoric reference, which is typical of written discourse and compatible with the heavily qualified nominal groups. The vocabulary for creating cohesion and constructing taxonomy are often technical terms whose relations have to be established by professional knowledge and inferencing. Those lay readers might find abstracts incohesive and incoherent. In fact, it is a construction of blocks, with connections to be filled in by informed readers or insiders.

The conjunctions explicitly used are mostly sequence markers. (first, second, then, furthermore, in all, finally...)   Used to present different parts of the source paper in a linear order, they prove to be external.

2.4 Theme and Rheme

The vast majority of ideational Themes coincide with subjects, the only marked one being the occasional prepositional phrase or hypotactic clause. The writer relies on standard information-ordering resources of the language to signal importance and relevance. The marked Themes serve to orient the reader to the coming information and specify and delimit the scope for its interpretation. For

the third-person indicative abstract, Themes are usually noun indicating either the type of inquiry (this study/ analysis/ investigation...) or the type of presentation (this paper/ article/ report...) and its subclass (part/ section/ chapter...) The typical thematic progression pattern is the parallel pattern. For more informative abstracts, the case is more complicated. No generalization can be made so far.

Relating Themes and Rhemes in abstracts also presupposes an insider. He should be able to recognize synonymous expressions, paraphrase and semantic inference and to split those lengthy Rhemes. However, as abstracts are condensed texts, there are bound to be some unmotivated Themes that seem unconnected with the preceding text. Yet there is justification for this. Abstracts move from one topic to another very fast because all the details are left out. Moreover, the level of shared specialist knowledge is expected to be high. Given the extent of specialized mutual knowledge, the writer may exploit it thematically instead of relying on information provided in the preceding Rheme.

2.5 Mood and modality

The mood system in abstracts has the least variety compared to other patterns. They are uniformly indicative statements because the writer sees his task as primarily that of imparting information. If the tenor is measured against the politeness system, it will be described as the **deference politeness system**. [-- power, +distance] The writer of abstracts addresses an audience of experts or insiders but avoids any direct interaction with the reader, who is not posited as Subject. In other words, the reader is never addressed as you in abstracts. (cf. textbooks)

For more informative abstracts, nominalized abstractions often feature as Subjects. The text makes measured claims by using modal verbs or adverbs to realize modalization or the so-called epistemic modality. Modulation or deontic modality is few in abstracts since they are not texts in which the writer makes demands or offers. Besides this, interpersonal meaning in abstracts is realized in various ways. Reporting verbs can convey the writer's attitude or commitment,

particularly in indicative abstracts. Moreover, passive voice and third person are often used as a means of detachment. But the use of third person is not absolute. Sometimes, the writer overtly involves himself in the text, deliberately weakening the truth value of the statement. Probability assessment and their linguistic realization have usually been swept under the umbrella term 'hedging' including modal verbs, modal adverbs, the use of certain personal pronouns and avoidance of others, the use of agentless passives and other impersonal expressions as well as certain choices in the vocabulary. In writing abstracts, the writer has to work hard to reach a balance, or to 'strike just the right tone.' Writers who make too assertive and rash statements can be seen as arrogant. But not being assertive enough makes the things said no better than nothing, which does not help the marketing of the paper.

The polarity analysis of my data partly supports Graetz's claim of the non-use of negatives in abstracts. Few negatives clearly have the advantage of economy. When there are negative meanings to be conveyed, **covert negatives** (negatives in a positive form), not **overt negatives** (negatives having a formal marker of negation), are applied.

Graetz's conclusion of the use of past tense in abstracts is most in conflict with mine. 90% of my data applies simple present tense. The simple present tense is applied in abstracts mainly for two functions. The first is the **unrestrictive use**. It is used to make generalizations and to convey 'eternal truths' and is found especially in more informative abstracts. For example, 'Involvement is operationalilzed by tasks designed to vary ...' The second function is the **instantaneous use**. It is often used in more indicative abstracts to convey subjective simultaneity and a sense of immediacy. For example, 'This paper **reviews** a number of constructs...' Choosing the present tense can thus produce an effect of liveliness and contemporary relevance. However, when previous experiment or survey is mentioned, past tense will often be used.

In short, abstracts as academic texts are not necessarily more objective than other texts; they are simply more effective at hiding subjectivity linguistically.

Chapter Three   Genre Analysis

Part One   Theoretical Framework

1. The notion of genre

Genre is a term which one approaches with some trepidation. It is widely used today to refer to a distinctive category of discourse of any type, spoken or written, with or without literary aspirations. However, the use of genre relevant to this study is within systemic-functional linguistics and the area of ESP. For this purpose, the following sub-sections briefly consider the term in these two areas.

1.1 Genre in systemic-functional linguistics

Even within systemic-functional linguistics, there are various definitions of genre. We shall concentrate on Martin's definition, which appears to be most acceptable: *A genre is a staged, goal-oriented, purposeful activity in which speakers engage as members of our culture.* (Cited in Eggins 1994: 26)

1.2 Genre in the area of ESP

In this area, we also find a number of influential definitions of genre, notably, those of Swales (1990) and Bhatia (1993). Taking genre after Swales, Bhatia has this to say about genre: *It is a recognizable communicative event characterized by a set of communicative purpose(s) identified and mutually understood by the members of the professional or academic community in which it regularly occurs. Most often it is highly structured and conventionalized with constraints on allowable contributions in terms of their intent, positioning, form and functional value.* (Bhatia 1993: 13)

1.3 Core characteristics

The foregoing definitions of genre indicate something of a common stance. Its components can be summarized as follows: an emphasis on goals and communicative purposes, a recognition that a genre is staged or structured and an understanding that a genre is situated within members of a culture or discourse communities.

1.4 Abstracts as a genre

It would be more conventional to regard abstracts as a subsection of the research article genre rather than a genre in its own right. However, since an abstract can appear independently of the article to which it relates, and does meet the definitions quoted, we propose to treat it as a genre in its own right.

2 Approaches to generic structures

2.1 Hasan's GSP

In the 1970s, Hasan laid the foundations for a theoretical conception of genre within systemics with her accounts of generic structures. She introduces the notion of generic structure potential (GSP) to generalize the range of staging possibilities associated with a particular genre. Her greatest contribution lies in her classification of optional and obligatory elements. The inclusion of optional elements gives more extended variations of the genre.

2.2 Martin's schematic structure

Martin refers to the overall staging patterning of texts as the schematic structures. In his terms, "*schematic structure represents the positive contribution genre makes to a text: a way of getting from A to B in the way a given culture accomplishes whatever the genre in question in functioning to do in that culture.*" (Cited in Eggins 1993: 36)

2.3 Swales' moves and steps

Following Swales' pioneering work on the introductions to academic articles, much genre analysis has been concerned with the analysis of the various moves that writers use to write a given section of a text. The term 'move' is similar to Hasan's 'element' and Martin's 'stage'. Swales' approach is sometimes referred to as move-structure. He goes a step further to point out that in order to realize a particular communicative intention at the level of a move, an individual writer may use different rhetorical strategies, which turn out to be different steps a writer may choose to take. The choice of the steps within a move is where individuals can exercise creativity.

2.4 Conclusion

Either Hasan's elements or Martin's stages or Swales' moves are identified in functional terms. In other words, they divide the text into parts according to the function not the form of the different constituents. We therefore only call something an element or a stage or a move if we can assign to it a functional label. Empty functional labels such as Beginning, Middle, End or Introduction, Body, Conclusion should be avoided since they are not genre-specific.

Part Two   Structural Description of Abstracts

1. Previous research

Although journal abstracts are under researched in some aspects, many researchers have been interested in their generic structures. In the following subsections, three models are introduced.

1.1 Geatze's model

Geatze claims that the most common structure for an abstract is a four-part arrangement consisting of Problem—Method—Results—Conclusions. (Cited in Swales 1990) Despite some reservations, Swales on the whole agrees with Geatze as he writes, "although further research is needed, it seems to be the case that most abstracts reflect the IMRD pattern of the RA itself, allotting a sentence or two for each section." (Swales 1990: 181)

1.2 Paltridge's model

Paltridge's model is based on the analysis of the abstract of an experimental research report. Its generic structure is glossed as Background—Purpose—Method—Results—Conclusions. (Paltridge 1996)

1.3 Bhatia's model

Bhatia (1993) proposes a four-move structure for abstracts, which I reproduce here:

Move 1. Introducing purpose   Move 2. Describing methodology

Move 3. Summarizing results   Move 4. Presenting conclusions

2. Comments and modification

2.1 Comments on Bhatia's model

Two limitations are easy to spot. First, the four-move structure only applies to informative abstracts. Second, Bhatia does not label some moves optional and some obligatory. She herself admits that she uses a 'typical' example (Bhatia 1993: 78) to illustrate this structure. A model is definitely of little significance if it can only apply to some typical informative abstracts. No flexibility or creation or variation can be exercised.

    In order to make the structure of abstracts more distinctive, Bhatia goes on to compare it with the structure of introductions proposed by Swales. The following is

the Swales' CARS model for article introductions: (Swales, 1990: 141)

Move 1 Establishing a territory
Step 1 Claiming centrality
and/or
Step 2 Making topic generalization(s)
and/or
Step 3 Reviewing items of previous research
Move 2 Establishing a niche
Step 1A Counter-claiming
or
Step 1B Indicating a gap
or
Step 1C Question-raising
or
Step 1D Continuing a tradition
Move 3 Occupying the niche
Step 1A Outlining purposes
or
Step 1B Announcing present research
Step 2   Announcing principal findings
Step 3   Indicating RA structure

Bhatia argues that the abstract and the RA introduction have very different communicative purposes. The research article abstract is meant to tell all the important aspects of the very much lengthier research report, whereas the introduction is meant to motivate the present research and to justify its publication. One of her suggestions seems interesting: 'the article introduction ends where the abstract begins.' (Bhatia 1993)   In her opinion, discussion of previous research in abstracts is rare, if any, whereas it is a very important part of the research article introductions.

With her typical example, what she claims seems reasonable. However, when I come to my data with this model, I find mismatch more often than not. When mismatch between a suggested model and a naturally occurring instance occurs, the weakness is either in the model or in the abstract itself. Fortunately, I happen to find an abstract of which Swales is a co-writer from the latest issue of *Applied Linguistics* at the time of writing. As we all know, J.M. Swales, whose work is actually the basis of Bhatia (1993), is famous for writing technical writing guidebooks for non-native students and is an important figure in the area of ESP. His own writing is assumed to

be model work. This is the abstract he writes together with I. Askehave with each sentence numbered for the ease of later reference:

①*Since the early 1980s, in much of the work within a genre-analytic approach, communicative goal or purpose has been used as an important and often primary criterion for deciding whether a particular discourse falls within a particular generic category.*②*However, as the number of genre studies has increased, and as genre theory has become more complex, the concept of 'communicative purpose' has also become more complex, multiple, variable and generally hard to get at.*③*We believe that one consequence of these developments has gone largely unnoticed: that uncertainties surrounding communicative purpose undermine its claimed role as means of assigning genre membership.*④*In this paper, we discuss this paradox, illustrate the difficulties that can arise, and then suggest a procedure whereby 'communicative purpose' can be retained as a viable and valuable concept.*

(Source: *Applied Linguistics* 2/2001, P.195)

Obviously, Bhatia's model does not work at all for this abstract. It is impossible to divide it into purpose, method, results, and conclusions. Linguistics abstracts are not always experiment-involved. I am not finding fault with Bhatia's model by deliberately finding a mismatch by Swales. In fact, there are too many similar abstracts as this one within my data, which makes me think hard for reasons and seek for a new model. As pointed out earlier, my work is largely pattern seeking other than pattern imposing.

2.2 A suggested new model

Since so many abstracts begin with the move that Bhatia argues against in his model for abstracts, I would make bold claims for the justification for this 'lead-in' move in my model for abstracts. However, I admit that this move is not an obligatory move in abstracts, but it is an important part, too. It can carry out one of the communicative purposes of abstracts: the marketing function. It is intended to catch the editor or the reader's attention. 'Of those who read the title only some will read the abstract, and of those who read the abstract only some will read the article itself' (Swales 1990) So the writer tries to convince his readers that there is something different from the

previous research, something that can bridge some gap, solve some problem, or explain some paradox...It is important to establish field as that writers invariably look for a larger readership and therefore have to 'sell' their papers. In other sense, this communicative purpose of abstracts makes it a similar genre with job applications or promotion letters whose marketing function are realized by 'offering incentives' or 'using pressure tactics.' (Bhatia 1993) Of course, it is impossible for abstracts to have lines like this: 'If you read my paper, you can...' or 'if you do not read my paper, you will...' I have swept things like previous research, background information, related recent development, gap indication or question-raising all under the umbrella term --- lead-in. However, I am not suggesting that this move is of the same importance as that in RA introductions. According to Paltridge's analysis of the generic structure potential of the scientific reports introductions (Paltridge 1997: 71), two structural elements emerge as being essential to the Introduction section, that is 'previous research' and 'purpose of study' which are two obligatory elements.

The second move I would like to suggest within an abstract is an obligatory move: announcing (either indicating or informing) the main contents of the source paper. Like Move 1, there are steps to choose: describing methodology, summarizing results, presenting conclusions, or simply indicating topics that are touched upon in the paper or the super-structure of the paper. Unlike Bhatia, I take these as steps within a general move other than separate moves in their own right. This definitely allows more flexibility and individuality for abstracts writers.

3. Concluding remarks

Thus, the new model suggested in the above sections can be summarized as follows:

Move 1 Lead-in (optional)
Step 1 Background information
and/or
Step2 Previous research
and/or
Step 3 Problem/gap indication
and/or
Step 4 Question-raising
and/or
Step 5 Purposes outlining

Move 2 Contents announcement
Step 1A Describing methodology
and/or
Step 1B Summarizing results
and/or
Step 1C Presenting conclusions
or
Step 2A Indicating topics
and/or
Step 2B Indicating super-structure

If we take the above Swales' abstract as an illustration for the model, its actual generic structure can be analysed as:

Move 1 Lead-in
Step 1 Background information: ①
Step 3 Problem/gap indication: ②,③
Move 2 Contents announcement
Step 2A Indicating topics: ④

The two moves in my model help carry out the communicative purposes of abstracts. Functioning mainly interpersonally, the first move attracts reader's attention. The second move carries out the experiential function by representing the source paper.

This two-move-structure model makes abstracts a quite distinctive genre. Generally, if empty functional labels are adopted, most genres will have a Beginning, a Body, and an Ending. However, we find in my model, there is not a third move (an Ending). Moreover, its first move (a Beginning) is not obligatory but optional. The feature that there could be only a Body in their generic structures corresponds with the distilled quality that gives abstracts their particular character and makes them easy to recognize.

Of course, this model is by no means free from problems. Its limitations will be discusses in next chapter.

Chapter Four   Leaving Open-ended

1. Limitations

It is advisable to leave my paper open-ended, as it inevitably cannot be free from limitations. For the register analysis of abstracts in Chapter 3, I have used Halliday's grammatical descriptions of the ideational, interpersonal, and textual components of English text and tried to meet a number of 'Hallidayan requirements' (Francis et. al 1992): it is deeply comparative with the seven chosen abstracts; it takes up the challenge facing text linguistics, to be as delicate and detailed as possible in analysis and uses both quantitative and qualitative measures in the analytical task. However, my work is still somewhat quantitatively limited. Traditional register analysis is generally done by undertaking a large-scale corpus-based statistical analysis of a representative sample of the variety in question. Secondly, it is disciplinarily limited as it is totally confined to linguistic abstracts, although I have justified the limitation in the beginning. Moreover, I have not distinguished the abstracts from the perspective of cross-cultural variation. It might be worthwhile to compare abstracts written by native English speakers and non-native speakers.

For the genre analysis of abstracts, my paper focuses only on their generic structures. The pattern or model I have sought aims to be flexible and allows more creativity. Within different moves, there are different rhetorical strategies (steps). These strategies are essentially of non-discriminative type and in principle, one can even add to the list of strategies one wishes to use at this level by being innovative. However, my model might cause the danger of being too 'tolerant' and thus conniving at 'anarchy'. We must realize that one can be more effectively creative in communication when one is well aware of the rules and conventions of the genre. So the contradiction between pattern-seeking and pattern-imposing remains a problem.

2. Further research

A number of implications for further research have already been outlined in the above section. Limitations are exactly places where further research could be carried out. The conclusions reached either in Chapter 2 or Chapter 3 need to be tested on a greater number of examples of journal abstracts. Comparative analysis can be further

conducted between abstracts taken from different disciplines or between abstracts written by native speakers and non-native speakers from different countries. It is also a meaningful perspective to compare abstracts, the distilled text with the their source papers, the full text.

Apart from all this within academic and research settings, contrastive studies may also take place between abstracts and other discourse types by applying systemic-functional resources for analysis. For example, a lot of researchers have noted the parallelism between headline and title, lead and abstract and so on. The front matter or 'news value' element makes it suitable to be compared with news leads, text in journalism setting. The marketing function makes it also comparable with advertisements. These are two possible perspectives that occur to me at present.

The findings of comparative analysis are usually interestingly revealing for both parties concerned. Furthermore, during the exploratory journey, analysts' understanding of the theoretical resources is, at the same time, greatly sharpened.

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