CONTRASTIVE RHETORIC, DISCOURSE, AND GENRE ANALYSIS: METHODOLOGICAL ISSUES

Yazid Basthomi

Jurusan Sastra Inggris Fakultas Sastra Universitas Negeri Malang

Abstract: This essay outlines methodological issues relating to the areas of contrastive rhetoric, discourse, and in particular, genre analysis. It draws round kinds of research methodologies widely used in the areas. It also, specifically, presents some frameworks developed for the analysis of texts of particular genre, for instance, the genre of research articles (RAs). The discussion of frameworks for RA analysis will be presented with particular attention given to the centrality of Swales' *Create a Research Space* (CARS) model. A caveat on the selection and application of the available frameworks or models will conclude the paper.

Key words: contrastive, discourse, genre, research articles (RAs), CARS.

There are a number of theories which are influential to the construction of contrastive rhetoric studies (Connor, 1996). The theories include those of applied linguistics, linguistic relativity, rhetoric, text linguistics, discourse types and genres, literacy, and translation. In terms of research methodologies, contrastive rhetoric studies have drawn on interdisciplinary approaches, ranging from linguistics, education, discourse analysis, sociolinguistics, to psycholinguistics. The alignment to one or more disciplinary approach is bound to be dependent upon the researcher's preference and/or training: structural analysis of texts (as produced by subjects from differing linguistic backgrounds) originates from linguistics, quantitative experimental research come from education and academic tradition of psychology, qualitative research (e.g., case studies and ethnographies) starts off sociolinguistics and anthropology (Connor, 1996).

Research on contrastive rhetoric was, in the early years, empirical (Connor, 1996). A great amount of the research was carried out by relying heavily on "applied linguistic and linguistic text analysis" (Connor, 2002:496); typically, such studies were directed to explore the features pertinent to coherence, cohesion, and discourse superstructure. Another early approach paid attention to the relationship of writer to reader; yet, it was still text-based in the analysis. This yielded the notion of writer-responsible and reader-responsible texts (Hinds in Connor, 2002). Recent trends of contrastive rhetoric studies refer to the approach which views writing as process; this was influenced by the paradigmatic approach of social construction (Connor, 2002). The latest methodological trend, however, is the convergence of writing as product and process coupled with genre ap-

proach. In brief, Connor (1996) summarizes six methods which have been employed in contrastive rhetoric studies. These include reflective inquiry, quantitative descriptive research, prediction and classification studies, sampling surveys, case studies and ethnographies, and experiments.

As Connor (1996:156) puts it, reflective inquiry is thought-out (referring to Bereiter and Scardamalia, 1983) to identify "problems and phenomena through observation, introspection, and literature review." Referring to Lauer and Asher (1988), Connor (1996:156) observes that quantitative descriptive research goes "beyond case studies and ethnographies to isolate systematically the most important variables developed by these studies, to define them further, and to *quantify* them at least roughly, if not with some accuracy, and to interrelate them" [emphasis original] (Connor, 1996:156). Still referring to Lauer and Asher (1988), Connor refers to predication and classification studies as efforts to "determine the *strength* of a relationship between several variables and a single criterion" [emphasis original] (Connor, 1996:156). When contrastive rhetoric research describes a "large group, a *population*, of people, composition, English courses, teachers, or classrooms, in terms of a *sample*, a smaller part of that group" [emphasis original], it is a sampling survey (Connor, 1996:156). Case studies in contrastive rhetoric research refers to "a type of qualitative descriptive research that closely examines a small number of subjects, and is guided by some theory of writing", whereas ethnography refers to qualitative descriptive research which "examines entire environments, looking at subjects in context" (Lauer and Asher in Connor, 1996:156). Connor (1996) also mentions that experiment studies in contrastive rhetoric have included both quasi and true experimental designs.

The abovementioned points were made on the basis of contrastive rhetoric. However, viewed from studies on writing in general, Lauer and Asher (quoted in Connor 1996:154) mention five types of studies: case studies, ethnographies, survey, quantitative research, and prediction and classification studies. As regards the writings of Indonesian NNS English writers, there have been different strands in approaching them. The first kind relates to the writings of students of ESL/EFL. Conducted in this line of approach include studies by Sulistyaningsih (1997), Harjanto (1999), Budiharso (2001), Latief (1990), and Cahyono (2001). In these instances, the students' writings were analyzed both in terms of product and process. Kaplan's seminal work in 1966 was conducted in the view of writing as product. More recent works, however, such as those of Harjanto (1999) and Budiharso (2001) were marked with a shift of orientation; they were executed in the second spirit, that is, writing as process. Compared to the first, writing as process seems to be more pedagogically concerned. Therefore, studies of such a kind are likely to have been carried out by people with educational concern and position, such as teachers and lecturers. The researchers seem to be aware of the need to know what are taking place when students are writing. Therefore, the subjects of such studies tend to be students.

The second feature of research in this area pertains to concerns about rhetorical patterns of people of certain cultural and linguistic backgrounds. In this regard, the researchers are concerned more with the textual properties of linguistic corpus than with how the writers come about with the corpus or the process of production. The researchers seem not to bother directly with applicative aspects for purposes of education in the sense of writing process (e.g., those related to business, medical, and legal enterprises). This seems to characterize Swales' (1981) work (cited in Connor, 1996), which has been extended in a book-length treatise about genre analysis of Eng-

lish academic writing and English in research settings. Kartika (1997) and Susilo (1999; 2004) also represent this typology. Kartika (1997) and Susilo (1999) analyzed articles in Jakarta Post in terms of rhetoric, whereas Susilo (2004) investigated the thought patterns of Indonesian writers as manifest in their letters written both in Indonesian and English.

In studies of this kind, claims about the rhetoric and thought patterns of the writers, as attributed to the writers' cultural backgrounds, are drawn from the analysis of the corpus. The corpus in this kind of studies is twofold. First, it is that which has been separate from the writers, meaning that the researchers do not make any attempt to prompt the writers to write; the researchers simply pick up instances of the already existing corpus and do not have direct contact with the writers. Secondly, it is the product of the subjects who are asked by the researchers to write; the researchers give prompts first to the subjects and then take the subjects' writings as their corpus which is then made ready for textual-rhetorical analysis. In this sort of research, the analytical tools employed tend to be similar to those applied to analyze students' writing as product. They are textual-analysis oriented. Such an analysis seems to be related to technical terms seemingly interchangeable, i.e., content analysis, textual-analysis, discourse analysis, genre analysis, and the like (Connor, 1996).

In such a sense, the researchers, at times, seem not to bother with the terms quantitative and qualitative methods. It seems that the analytical tools the researchers employ have developed on their own as a disciplinary methodological approach in the area of corpus or text linguistics. Within the area of social sciences, Titscher et al. (2000) discuss, even in a categorical manner, methods which they refer to as methods of text and discourse analysis. The methods are basically those which are commonly used by qualitative researchers. In this sense, it seems that when people speak of textual analysis, they speak of qualitative research and the other way around. In other words, qualitative research cannot leave textual analysis of their data.

A word of guard, however, would be needed in speaking of research which puts writing as product and writing as process. In the area of the teaching of writing, people might have just combined the two views and thus drawn on both kinds of methodologies, for instance, textual analysis (in line with writing as product) and interviews (derived from qualitative approach) which are selected in accord with the view of writing as process. But, basically, methods of text and/or discourse analysis has a closer relationship with qualitative research than with quantitative one (see Titscher et al., 2000). Probably, for clarification, it is important to note the distinction between elicitation and evaluation methods. The first refers to ways of collecting data and the latter procedures that have been developed for the analysis of the collected data (Titscher et al., 2000). The first is close to writing as process and the latter writing as product.

The third type, seemingly the most rarely done, has to do with attempts to understand how a certain group of people, so-called the gatekeepers of discourse community (Flowerdew, 2001; Swales, 1990), reflect on their community's rhetorical expectations and give responses to questions about such expectations. Flowerdew's (2001) work constitutes an excellent example of research within this strand. Since this kind of study concerns with the expectations as shaped by training, long practice, norms, and conventions, which are basically mental, the researcher opted for interviews as the main methodological instrument to gain access to the data intended. This research can, subsequently, be said to be qualitative in nature.

Since the qualitative approach is com-

monplace and applicable to any discipline, the present review shall not focus on it; rather it will focus on the seemingly "discipline-specific" methodology in the sense of analytical frameworks (evaluation methods, to refer to Titscher et al. (2000)) as have been developed in the area of genre analysis of genre-approach study of writing products or corpus. This specific area has already developed analytical tools or frameworks of its own. This being the case, in what follows, the discussion shall be on ideas about genre-analytic frameworks.

FRAMEWORKS FOR GENRE ANALYSIS

A number of analytical tools have been well documented and employed. In his study of English and Indonesian persuasive essays written by Indonesian students of EFL, Cahyono (2001) drew on Connor and Lauer's (1988) model. This model consists of three measures: the superstructure of argument, the Toulmin model of informal reasoning, and the persuasive appeals (Cahyono, 2001). Thus, Cahyono (2001: 62-63) applied an adapted model of Connor and Lauer (1988) as shown in Figures 1 and 2.

It is these analytic tools which have been also opted for by some in recent research, such as those by Harjanto (1999), Budiharso (2001), and Susilo (2004). In these recent works, some other works have also been used in conjunction with Connor and Lauer's or Toulmin's. The researchers have also drawn on qualitative approach to the study by adopting interviews as the instrument.

In brief, an amount of research has employed analytic tools as developed in the area of genre/textual/discourse analysis. Such analytic tools have also been used in conjunction with either quantitative or qualitative approach. Such a combination seems to have been conducted in line with views of writing as product and process. It is insightful to note that Harjanto (1999) also viewed writing as indivisible in terms of product and process. Therefore, he amalgamated textual analysis of the writing products, and questionnaire and interviews to probe into the details of what were in the writers' mind pertinent to their writings. Yet, Harjanto (1999) did not deal with parties other than writers, such as journal editors and/or reviewers.

Components	Scores	Criteria
Claim	0	No use of claim.
	1	No specific problem stated and/or no consistent point of view. May have one sub-claim. No solution offered, or if offered non-feasible, unoriginal, and inconsistent with claim.
	2	Specific, explicitly stated problem. Somewhat consistent point of view. Relevant to the task. Has two or more sub-claims that have been developed. Solution offered with some feasibility with major claim.
	3	Specific, explicitly stated problem. Somewhat consistent point of view. Several well-developed sub-claims, explicitly tied to the major claim. Highly relevant to the task. Solution offered that is feasible, original, and consistent with major claim.
Data	0	No use of data.
	1	Minimal use of data. Data of the "everyone knows" type, with little reliance on personal experience or authority. Not directly related to major claim.

Components	Scores	Criteria
	2	Some use of data with reliance on personal experience or authority. Some variety in use of data. Data generally related to major claim.
	3	Extensive use of specific, well developed data of a variety of types. Data explicitly connected to major claim.
Warrant	0	No use of warrant.
	1	Minimal use of warrant. Warrants only minimally reliable and relevant to the case. Warrants may include logical fallacies.
	2	Some use of warrants. Though warrants allow the writer to make the bridge between data and claim, some distortion and informal fallacies are evident.
	3	Extensive use of warrants. Reliable and trustworthy allowing rater to accept the bridge from data to claim. Slightly relevant. Evidence of some backing.

Figure 1. *Criteria for scoring the quality of components of the Toulmin model of informal reasoning*

Components	Scores	Criteria
Rational	0	No use of the rational appeal.
	1	Use of some rational appeals*, minimally developed or use of some inappropriate 9in terms of major point) rational appeals.
	2	Use of a single rational appeal* or a series of rational appeals* with at least two points of development.
	3	Exceptionally well-developed and appropriate single extended rational appeal* or a coherent set of rational appeal*.
Credibility	0	No use of credibility appeals.
	1	No writer credibility but some awareness of audience's values or some writer credibility (other than general knowledge) but no awareness of audience's values.
	2	Some writer credibility (other than general knowledge) and some awareness of audience's values.
	3	Strong writer credibility (personal experience) and sensitivity to audience's values (specific audience for the solution).
Affective	0	No use of affective appeal.
	1	Minimal use of concreteness or charged language.
	2	Adequate use of either picture, charged language, or metaphor to evoke emotion.
	3	Strong use of either vivid picture, charged language, or metaphor to evoke emotion.

Figure 2. Criteria for scoring the components of the persuasive appeals

GENRE ANALYSIS OF RESEARCH ARTICLES (RAs)

Swales (1981, 1990) has been pioneering the analysis of rhetorical structure of English RAs. His studies have been conducted within the area of English for Specific Purposes (ESP). Such studies have a particular interest in organization of RAs as echoing the nature of communication between the writers on the one hand and readers of particular characteristics or members

(active/passive or real/unreal) of discourse community. In Swales' analytic framework, the communication between the writer and reader as done through RAs is viewed as manifest in the stages or '*moves*' that build up the RA structure (Mirahayuni, 2001).

Central to Swales' view is the notion of discourse community and genre. A discourse community denotes "sociorhetorical networks that form in order to work towards sets of common goals" (Swales, 1990:9). One among the characteristics of members of a particular discourse community is their "familiarity with particular genres that are used in the communicative furtherance of those set goals" (Swales, 1990:9). This applies (supposedly) to all members of international discourse community; a member's failure in this enterprise might be likely to expel him/her from the community.

Another important point purported by Swales is that the internal structure of a genre flaunts the communicative purposes, forms, structures and audience expectations of the discourse community. This characteristic necessitates those who aspire to participate in a particular activity of discourse community to meet such expected communicative purposes, forms, structures, and audience's expectations in their communicative activities, inclusive of journal RA writing.

The structuring of texts as made up of a sequence of '*moves*', each of which may contain one or more '*steps*', indexes the text's communicative stages in response to the audience expectations. In the area of RA writing, Swales (1990) points out that two sections in RA, i.e., Introduction and Discussion, require greater efforts on the part of the writer to work about. Flowerdew (2001), more specifically, found out that international journal editors consider Introduction the most problematic for non-native English writers. Swales, in his 1990-model for the analysis of the structure of RA Introduction, proposes three moves, each of which is further specified into steps, as can be viewed in Figure 3.

Introduction	
Move I	**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 II	**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 III	**Occupying a niche**
	Step 1A Outlining purpose or
	Step 1B Announcing present research
	Step 2 Announcing principal findings
	Step 3 Indicating RA structure

Figure 3. *Swales' (1990) structure of English RA Introduction*

Mirahayuni (2001) and Connor (1996) report that Swales' model has been extensively applied to different texts to account for the schematic structure of English RAs in various disciplines. Mirahayuni mentions instances of the application as including Brett (1994) for sociology RAs, Nwogu (1997) for medicine RAs and Santiago-

Posteguillo (1999) for computer RAs, Santos (1996) for abstracts, Henry and Roseberry (1997) for essays, and Dudley-Evans (1986), Paltridge (1997), and Yu Ren Dong (1998) for thesss/dissertations. Mirahayuni also mentions that Swales' model has also been applied to analyze English RAs written by non-native English speakers. In this strand, Mirahayuni mentions Gupta's (1995) and Sionis (1995) as the examples.

Gupta (reported in Mirahayuni, 2001) applied Swales' model in his efforts to explore the information flow in English RAs written by international graduate students. In the work, Gupta has pointed out that the Introduction by NS English writers connects the audience with the writer's work by bridging the gap between the intended reader's knowledge base and the research paper. At this juncture, non-native English writers were found to have difficulties in structuring their Introduction to make a coherent text. The problem, in his observation, lies not in just following the pattern, but more importantly in the organization of the scheme of Introduction, different levels of information, and transition between different levels of information. Another example cited by Mirahayuni (2001) is Sionis' work. He investigated the communicative strategies of English RAs written by French researchers. He noticed a number of problems, including culture-bound attitudes, poor mastery of the target language and lack of familiarity with the discourse conventions of scientific writing in English. These studies suggest that attention needs to be given to both linguistic and socio-cultural aspects of RA genre, particularly for non-native English writers.

Studies of generic structure, referring to Mirahayuni (2001), have also been applied to RAs written in languages other than English, such as Finnish (Mauranen, 1993) and Malay (Ahmad, 1997). Mauranen notes that exposure to foreign rhetoric alone does not necessarily influence the writer's rhetorical practices, particularly when the writer lives in their native culture (in Mirahayuni, 2001). This indicates that English NNS writers need to adapt to English culture's ways; this necessitates the NNS writers to gain awareness of textual features and the culture-specific differences involved (between their mother tongue and English) along with skills to manipulate textual features in a foreign language. Different from a number of studies, Ahmad (1997) has identified an overall resemblance of Malay and native English RAs in terms of rhetorical and informational structure; however, she has also noted that the Malay writers tend to give more definitions, provide historical account, show concern for local consumption of research results (deviating from Swales' (1990) Move II), and show greater tolerance for ambiguity.

In her own work applying Swales' model, Mirahayuni (2001) focused on and identified the functional elements that constitute the generic structure of English RA texts as written by writers of different nationalities. The approach was mainly descriptive and focused on the comparison of tendencies that are observable in the writers' strategies. The study started with identifying general rules of the overall surface format of the three text groups, i.e. the IMRD structure, in order to identify the surface differences of the text groups. Then, the analysis focused on the Introduction and Discussion sections. The main analysis was concerned with the generic structure. Each move and step in each section was identified and labeled using Swales' model. *Moves* were labeled with ordinal number (I, II, etc.) and *steps* with cardinal number (1, 2, etc.). For instance, Move I-3 in the Introduction is meant to refer to the third step of the first move, i.e., reviewing previous research. Mirahayuni applied the moves and steps to phrases, clauses or paragraphs that she identified as carrying a particular function in the generic structure.

Mirahayuni's (2001) identification was primarily content-based. Her intuition and interpretation of the functions carried by particular part of text was the key to her identification process. In this line, she has pointed out that this might be a potential weakness in Swales' model, for the model does not provide a specification as to what constitute the systematic (thus predictable) relations between particular rhetorical functions and their linguistic realization. So, Mirahayuni's analysis of the native English texts was intended to further appraise the accuracy of Swales' model for English RAs. On the other hand, the analysis of the non-native English RAs and native Indonesian RAs, which employed similar strategies, was aimed to investigate the differences in the generic structure. Mirahayuni was also concerned with finding possible explanation for stages of generic structure. As well, she was concerned with any functions unidentified in both Swales' model and native English RAs.

In their work to develop an automated assessment tool of argumentative essays, Moreale and Vargas-Vera (2004) also referred to Swales' model (see Figure 4). However, as rightly pointed out by Mirahayuni (2001), Swales' model still poses some problems as it relies heavily on the intuition of the researchers as to what belong to certain moves or steps. Therefore, they developed their own model by combining models, such as that of Swales, with cue phrases, and with their associated semantics. In the work, Moreale and Vargas-Vera (2004) focused on students' argumentative essays. This is because they viewed that students' argumentative essays differ, to some extent, from academic essays or RAs in general. This means that, application of Swales' model to analyze students' essays is to some degree inappropriate unless due modification is made. Student essays usually do not contain original contributions to knowledge as do RAs and their structure is less predictable than that of an academic paper or RAs (Moreale and Vargas-Vera (2004).

In their paper, Moreale and Vargas-Vera (2004) compared Swales' model (as has been modified) with those of others.

Move 1: Establishing a Territory		
Step 1	Claiming Centrality	Recently, there has been wide interest in…
Step 2	Making Topic Generalizations	A standard procedure for assessing has been…
Step 3	Reviewing Items of Previous Research	Verbs like show, demonstrate, establish
Move 2: Establishing a Niche		
Step 1a	Counter-claiming	Negative or quasi negative quantifiers (no, little); Lexical negation (verbs like fail or lack, adjectives like misleading); negation in the verb phrase, questions, expressed needs/desires/interests (The differences need to be analyzed), logical conclusions, contrastive comments and problem-raising
Step 1b	Indicating a gap	
Step 1c	Question-raising	
Step 1d	Continuing a tradition	
Move 3: Occupying a Niche		
Step 1a	Outlining purposes	This, the present, we, reported, here, now, I, herein
Step 1b	Announcing present research	

Step 1c	Announcing principal findings	The purpose of this investigation is to …
Step 1d	Indicating RA structure	The paper is structured as follows…

Figure 4. *Swales' (1990) CARS model as Modified by Moreale and Vargas-Vera (2004)*

Teufel et al. (1999), according to Moreale and Vargas-Vera (2004), extended Swales' (1990) CARS model by adding new moves to cover the other paper sections. Given their focus on automatic summarization, Teufel et al.'s (in Moreale and Vargas-Vera, 2004) annotation schema aims to mark the main element in a research paper: its purpose in relation to past literature. They classify sentences into background, other, own, aim, textual, contrast, and basic categories (see Figure 5).

Moreale and Vargas-Vera (2004) mention that Teufel et al. claim that this methodology could be employed for text summarization. However, this methodology is not a computer-implementable system (Moreale and Vargas-Vera, 2004). The experiments by Teufel et al. in manual annotation showed that their annotation schema can be well carried out by human annotators (Moreale and Vargas-Vera, 2004).

BACKGROUND	Statements describing some (generally-accepted) background knowledge
OTHER	Sentences presenting ideas attributed to some other specific piece of research outside the given paper
OWN	Statements presenting the author's own new contributions;
AIM	Sentences describing the main research goal of the paper;
TEXTUAL	Statements about the textual section structure of the paper;
CONTRAST	Sentences contrasting own work to other work;
BASIS	Statements to the effect that current work is based on some other work or uses some other work as its starting point;

Figure 5. *Teufel's Annotation Scheme (slightly modified)*

Hyland (in Moreale and Vargas-Vera, 2004) describes a metadiscourse schema that differentiates textual types from interpersonal ones in academic texts (see Figure 6). Textual metadiscourse refers to tools which make possible the recovery of the writer's intention by explicitly establishing preferred interpretations; the tools also help form a convincing and coherent text by relating individual propositions to each other and to other texts (Moreale and Vargas-Vera, 2004). Interpersonal metadiscourse, on the other hand, notifies readers of the author's perspective towards both the information and the readers themselves. It, hence, expresses a writer's persona (Moreale and Vargas-Vera, 2004).

Trying to model generic (not simply scientific) student argumentation at undergraduate and graduate level, Moreale and Vargas-Vera (2004) decided to base their scheme on a generic ontology for scholarly discourse. They looked at ClaiMaker, a (computerized) tool to manually enter (also visualize and search for) claims found in research papers. Claims in ClaiMaker are classified as general, problem-related, taxonomic, similarity or causal (Moreale and Vargas-Vera, 2004) (see Figure 7).

According to Moreale and Vargas-Vera

(2004), ClaiMaker is mainly meant for academic papers; ClaiMaker sees an academic research paper as a set of inter-linked parts. Dissimilar to this, Moreale and Vargas-Vera (2004) were motivated to deal with (mainly individual) student essays, from which they wish to extract arguments in an automated way. Being aware of the difficulties in automated extraction of arguments, Moreale and Vargas-Vera (2004) believed that a shallow analysis of the text can still give us clues about arguments in student essays.

Category	Function	Examples
Textual Metadiscourse		
Logical connectives	express semantic relation between main clauses	In addition, but, therefore, thus, and
Frame markers	explicitly refer to discourse acts/text stages	Finally, to repeat, our aim here, we try
Endophoric markers	refer to information in other parts of the text	Noted above, see Fig 1, table 2, below
Evidentials	refer to source of information from other texts	According to X / Y, 1990 / Z states
Code glosses	help reader grasp meanings of ideational material	Namely / e.g. / in other words / such as
Interpersonal Metadiscourse		
Hedges	Withhold writer's full commitment to statements	Might, perhaps, it is possible, about
Emphatics	Emphasise force of writer's certainty in message	In fact, definitely, it is clear, obvious
Attitude markers	Express writer's attitude to prepositional content	Surprisingly, I agree, X claims
Relational markers	Explicitly refer to/build relationship with reader	Frankly, note that, you can see see
Person markers	Explicitly reference to author(s)	I, we, my, mine, our

Figure 6. *Hyland's Taxonomy: Functions of Metadiscourse in Academic Texts*

As a first step in their research, they identified categories of possible arguments in a student essay. Their categorization is mainly based on a preliminary manual analysis of essay texts, with some categories derived from ClaiMaker. They also utilized some input from the categorization schemes described earlier (Moreale and Vargas-Vera, 2004).

Link Type	Link
General	
Various useful links	Is about, uses / applies / is enabled by, improves on, impairs, other link
Problem-related	
Links to connect to concepts that are research problems	Addresses Solves

Link Type	Link
Supports/Challenges	
Links to use for connecting evidence and arguments to concepts that are hypotheses or positions taken by the author	Proves, refutes, is evidence for, is evidence against, aggress with, disagrees with, is consistent with, is inconsistent with
Similarity	
Links to tie together similar concepts, or concepts to be specified as different	Is identical to, is similar to, is analogous to, shares issues with, is different to, is the opposite of, has nothing to do with, is not analogous to
Causal	
Links to tie up causes and effects, or indicate that certain conditions have been eliminated as possible causes	Predicts, envisages, causes, is capable of causing, is prerequisite for, is unlikely to affect, prevents

Figure 7. *Rhetorical Relations Used in ClaiMaker*

From a bottom-up approach, they came up with following initial argumentation categories: definition, comparison, general, critical thinking, reporting, viewpoint, problem, evidence, causal, taxonomic, content/expected and connectors. Some categories have subcategories: e.g. connectors have the following subcategories: topic introduction, inference, contrast, additive, support, reformulation and summative. Their further review of this categorization incited them to reduce the number of categories (visualization problems, cognitive overload). They therefore classified some related categories and turned them into subcategories of a new category (for instance: evidence, causal and taxonomic categories became subcategories of a new "Link" category). By making them subcategories, rather than merging them, they were allowed to visualize them separately (when the need appeared). Further, they also noted that cue phrases in the viewpoint category showed a clear affinity with positioning (the new name for "critical thinking"): so they placed this under "positioning". Their revised categorization also sees comparison as a subcategory of definition (the other subcategory being "is about"), because they often define a concept by comparing and contrasting it with other items. The rationalization process prompted them to a final student essay categorization: definition, reporting, positioning, strategy, problem, link, content/expected, connectors and general (see Figure 8).

Category	Description	Cue Phrases (Examples)
DEFINITION	Items relating to the definition of a term. Often towards the beginning. IS_ABOUT, COMPARISONS	is about, concerns, refers to, definition; is the same; is similar /analogous to;
REPORTING	Sentences describing other research in neutral way	"X discusses", "Y suggests", "Z warns"
POSITIONING	Sentences critiquing other research VIEWPOINTS	"I accept", "I am unhappy with", "personally";
STRATEGY	Explicit statements about the method or the textual section structure of the essay	"I will attempt to", "in section 2"

Category	Description	Cue Phrases (Examples)
PROBLEM	Sentences indicating a gap or inconsistency, question-raising, counter-claiming	"There are difficulties", "is problematic", "impossible task", "limitations"
LINK	Statements indicating how categories of concepts relate to others TAXONOMIC, EVIDENCE, CAUSAL	"subclass of", "example of", "would seem to confirm", "has caused"
CONTENT/ EXPECTED	Any concept that the tutor expects students to mention in their essay. Tutor-editable	Essay-dependent
CONNECTORS	Links between propositions may serve different purposes (topic introduction, support, inference, additive, parallel, summative, contrast, reformulation)	"With regard to", "As to", "Therefore", "In fact", "In addition", "Overall", "However", "In short"
GENERAL	Generic association links	"is related to"

Figure 8. *Moreale and Vargas-Vera's Detailed Taxonomy for Argumentation in Student Essays*

Compared to Teufel's annotation scheme, Moreale and Vargas-Vera scheme lacks an "AIM" category. Their contention is that their scheme is less applicable to student essays. They also assert that all student essays aim to answer the essay question. In this case, they see no need for the category of "AIM". Likewise, they do not distinguish between OTHER and OWN (in Teufel's terms): this distinction, which Teufel reports to have caused problems to human annotators of research papers, is irrelevant in their domain. On the other hand, the content/expected category has no obvious counterpart in other categorizations, for it is a student essay-specific category consisting of cue phrases identifying content that the tutor expects to find in the student essay. In general, there are great similarities across the taxonomies which have, hitherto, been discussed. Moreale and Vargas-Vera (2004) summarized the similarities (see Figure 9).

Category Name	Relationship to Other Categorisations	
DEFINITION	• ClaiMaker: is about • Teufel's CONTRAST	
COMPARISON	• Swales: Move 1, Step 3; • Teufel: OTHER; • Hyland: EVIDENTIALS	
REPORTING		
POSITIONING	• Swales: Move 2 (Establishing a Niche); • Teufel's CONTRAST; • Hyland: Emphatics, Attitude markers, Person markers	Hyland: Interpersonal Metadiscourse
VIEWPOINT	• Hyland: Hedges	

Category Name	Relationship to Other Categorisations	
STRATEGY	• Swales: Purpose: M3, S1a; Structure:M3, S1d • Teufel: TEXTUAL; • Hyland: Endophoric markers	
PROBLEM TAXONOMIES EXPECTED/ CONTENT	• Swales: Move 2 Establishing a Niche) • ClaiMaker: Taxonomic	
CONNECTORS	• Hyland: Logical Connectives, Frame Makers, Code glosses	Hyland: most of Textual Metadiscourse
GENERAL	• ClaiMaker: General link type (except is about)	

Figure 9. *Main Relationships of Moreale and Vargas-Vera's (2004) Essay Metadiscourse Taxonomy to Other Categorizations*

This all means that Moreale and Vargas-Vera's (2004) taxonomy is not suitable for application to RAs as published in journals. Journals do not typically pose a characteristic of setting a question for the writers to answer in the form of essays. Rather, it is the writers themselves who should decide the expected "question" to be answered in the research which is reported in the due RAs to appear in the journals. In other words, the aim to address in the article is not as specified as student essays. The import of Moreale and Vargas-Vera's (2004) taxonomy is that it serves as an example endorsing the idea that text analysis has several models of analytical frameworks available for analysis.

CONCLUDING REMARKS

The foregoing discussion has sketched methodological issues surfacing around the studies on discourse. Those methodologies have made explicit some discourse as well as rhetorical conventions of texts of certain genres. Of the genre of research articles, for instance, the typical characteristic discourse structure (property) might be that of *Create a Research Space* (CARS). However, as has been adumbrated earlier, this characteristic is not the only possible result, thus, should not be attended to from prescriptive point of view. The models available might be referred to as the starting point for analysis and open for revision. It is incumbent upon the researcher to observe the purpose of his or her own research objectives and the characteristics of his or her research so as the selection and application of the models qualify some validity.

REFERENCES

Ahmad, U. K. 1997. *Scientific Research Articles in Malay: A Situated Discourse Analysis.* Unpublished Ph.D. Dissertation. Ann Arbor: The University of Michigan.

Budiharso, T. 2001. *Rhetoric and Linguistic Features of English and Indonesian Essays Made by EFL Undergraduate Students*. Unpublished Doctoral Dissertation. Malang: PPS UM.

Cahyono, B. Y. 2001. How English Learning Development Influences EFL Students' Rhetoric of Indonesian Essays. *BAHASA DAN SENI*, 29 (1), 98-108.

Connor, U. 1996. *Contrastive Rhetoric: Cross-cultural Aspects of Second Language Writing.* Cambridge: Cambridge University Press.

Connor, U. 2002. New Direction in Contrastive Rhetoric. *TESOL QUARTERLY*, 36 (4), 493-509.

Flowerdew, J. 2001. Attitudes of Journal Editors to Nonnative Speaker Contributions. *TESOL QUARTERLY*, 35 (1), 121-150.

Harjanto, I. 1999. *English Academic Writing Features by Indonesian Learners of English*. Unpublished Doctoral Dissertation. Malang: PPS UM.

Kaplan, R. B. 1966. Cultural Thought Patterns in Intercultural Education. *Language Learning.* 16, 1-20.

Kartika, O. R. 1997. *A Study on Rhetoric by Indonesian and English Native Writers in the Jakarta Post*. Unpublished Master Thesis. Malang: PPS UM.

Latief, M. A. 1990. *Assessment of English Writing Skills for Students of English as a Foreign Language at the Institute of Teacher Training and Education IKIP MALANG Indonesia.* Unpublished Ph.D. Dissertation. Iowa: University of Iowa.

Mirahayuni, N. K. 2001. *Investigating Generic Structure of English Research Articles: Writing Strategy Differences between English and Indonesian Writers*. A paper presented at THE 49th TEFLIN International Conference 2001 Kuta, Bali, 6-8 November 2001.

Moreale, E. and Vargas-Vera, M. 2004. Genre Analysis and the Automated Extraction of Argument from Student Essays. A Paper accessible from **Error! Hyperlink reference not valid.** Accessed 10 April 2004.

Sulistyaningsih. 1997. *A Descriptive Study on Rhetoric in Students' Expository Essays*. Unpublished Master Thesis. Malang: PPS UM.

Susilo 1999. *Rhetorical Patterns as Reflected in Argumentative Discourse in the Jakarta Post Articles*. Unpublished Master Thesis. Malang: PPS UM.

Susilo. 2004. *Thought Patters as Reflected in the Linguistic Features in Indoensian and English Letters Written by Indonesians.* Unpublished Doctoral Dissertation. Malang: PPS UM.

Swales, J. M. 1990. *Genre Analysis: English in Academic and Research Settings.* Cambridge: Cambridge University Press.

Titscher, S., Meyer, M., Wodak, R. and Vetter, E. 2000. *Methods of Text and Discourse Analysis.* London: SAGE Publications.