Understanding persuasive essay writing: Linguistic/rhetorical approach

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Abstract

This paper reports on research, funded by the Education Foundation of the Exxon Corporation, to study several measures for describing and evaluating student persuasive writing. The variables examined were coherence, cohesion, syntactic features, and persuasive appeals. The data were 100 American and British high-school student persuasive essays randomly selected from the compositions of the International Education Association project. The results demonstrate the need for a multidimensional methodology to assess a broad range of linguistic and rhetorical features in order to adequately account for variation in writing quality among students.

1. Introduction

In writing evaluation, holistic ratings have been the most common assessment tool, with use also of analytic and primary trait scoring. Charney (1984) in her critical overview of holistic writing assessment calls for a systematic exploration of the issue of criteria for the improvement of the validity and reliability of evaluations of writing samples. We are also concerned about the issues of reliability and validity, and especially about the fact that holistic evaluations are too global to indicate specific strengths and weaknesses in student compositions. We think that it is not enough for either research or instructional practice to evaluate the general quality of compositions, but that specific information is needed about the linguistic and rhetorical characteristics that give rise to such judgment.

The methodology that is suggested in this paper considers both linguistic

and rhetorical features in writing. As Enkvist (1985) points out, both linguists and rhetoricians need to examine student writing in attempts to explain writing quality.

In the present study, concepts and methods of analyses from both text linguistics and rhetoric were included, namely coherence, cohesion (text linguistics), and persuasive appeals to the audience (rhetoric). These variables nd methods were chosen because discourse theory suggests that coherence and cohesion are indicators of textual quality, and rhetorical theory suggests that the appeals account for success in persuasive discourse.

Purpose

The purpose of the present study was to develop valid and reliable methods of describing writing quality based on current linguistic and rhetorical theories for analyzing persuasive essays. The following research questions were posed:

- 1. What reliable and valid indicators of writing quality can be identified?
- What is the relationship between coherence and essay quality?
- What is the relationship between cohesion and essay quality?
- What is the relationship between cohesion and coherence?
- What is the relationship between the rhetorical appeals and writing quality?

3. Major variables

3.1. Coherence

Studies of coherence in writing, both theoretical and empirical, have been numerous in the past five years. Even though there is now a consensus about the separate qualities of coherence and cohesion, the concept of coherence is still not well understood. A few researchers have attempted, with varying degrees of success, to describe coherence using linguistic features from real texts (Connor, 1984; Lautamatti 1978, 1980; Lindeberg, 1985). These studies have been exploratory in nature and have included small numbers of subjects (with the exception of Wikborg, 1985; and Bamberg, 1983, 1984), and have used only one rater, with the exception of Bamberg's studies. In the present

study, Bamberg's coherence rubric was used because it has met the test of peer review (1983, 1984). Bamberg's method has proved to be highly reliable and she has discussed the validity of her scale. In a recent study, Connor and Farmer (1985) used the Bamberg scale and found an interrater reliability of .93. The Bamberg scale is shown in Figure 1.

| Bamberg's | Connor/Lauer label | |
|--|----------------------|--|
| Four point coherence scale | for these categories | |
| The Writer | | |
| 4 | | |
| - identifies the topic and does not shift or digress | Focus | |
| - orients the reader by describing the context or situation | Context | |
| organizes details according to a discernible plan that is sustained throughout the essay | Organization | |
| skillfully uses cohesive ties (lexical cohesion, conjunction, reference, etc.) to link sentences and/or paragraphs | Cohesion | |
| - often concludes with a statement that gives the reader a definite sense of closure | Closure | |
| makes few or no grammatical and/or mechanical errors that interrupt the discourse flow or reading process | Grammar | |
| 3 | | |

meets enough of the criteria above so that a reader could make at least a partial integration of the text

- does not identify the topic and inference would be unlikely
- shifts topic or digresses frequently
- assumes reader shares his/her context and provides little or no orientation
- has no organizational plan in most of text and frequently relies on listing
- uses few cohesive ties (lexical cohesion, conjunction, reference, etc.) to link sentences and/or paragraphs
- makes numerous mechanical and/or grammatical errors, resulting in interruption of the reading process and a rough or irregular discourse flow

essay is literally incomprehensible because missing or misleading cues prevented readers from making sense of the text

Figure 1. Bamberg's 'Four Point Holistic Coherence Rubric'**

From Betty Bamberg's 'What Makes a Text Coherent?', College Composition and Communication 34 (December 1983): 417-429

The scale has six subcategories (we labelled them: focus, context, organization, cohesion, closure, and grammar), but only one score of coherence has been given to each composition in Bamberg's research. Because the present study is concerned with the construct validity of the scale in addition to reliability, a score (1-4) was given to each essay, on each of the six categories. We questioned whether Grammar and Cohesion are related to coherence. In addition, we felt that some categories, e.g. Focus and Development may measure the same underlying characteristic.

3.2. Cohesion

Cohesion, the linking of sentences together using surface items, has been widely studied in writing research. Connor (1984) and Witte and Faigley (1981) applied the Halliday and Hasan system to student essays. Lindeberg and Wikborg have added more detailed categories of cohesive items in their work. Connor's research and informal analyses of the current data led us to believe that in studying writing quality the most useful categories would be reference ties and lexical cohesion. Further, previous investigators, with the exception of Wikborg, have not dealt with the breakdowns in cohesion due either to a distance between a cohesive item and its referent or to a miscued item. In the present study, breakdowns in cohesion were studied.

3.3. Persuasiveness

The analysis of persuasive texts has been impeded by a confusion that has existed since the nineteenth century over the nature of persuasive discourse. Classifications of discourse into description, narration, exposition, argumentation, and persuasion led first to a separation of argumentation and persuasion and then to the elimination of persuasion by major American text writers such as Genung (1885, 1894). Subsequently argumentation either replaced or subsumed persuasion in composition instruction. This confounding of argumentation and persuasion has recently been challenged by rhetoricians like Kinneavy (1971), Connors (1981), and Berlin and Inkster (1980), who argue that such a confusion reduces persuasion to the logical appeal.

In this research, we consider written persuasive discourse to be that which integrates the rational, credibility, and affective appeals (corresponding to logos, ethos, and pathos) which together had characterized persuasion for over nineteen centuries from the rhetorics of Aristotle, Cicero, and Quintilian, to those of Campbell and Whately. We define written persuasive discourse as that which integrates the three appeals in its effort to effect cooperation and identification with an audience. This view of rhetoric is consonant with the work of Burke (1969); Young, Becker, and Pike (1970); Kinneavy (1971); and Lauer et al. (1985). In our definition, argumentation becomes a part of persuasion. Our analysis of good written persuasive discourse, therefore, attempts to determine those rational, credibility, and affective features of a text that account for its persuasiveness.

We know of no discourse analysis of the macro-structure or micro-structure of persuasive discourse, as we define it. No alternative methods of analysis exist for this type of discourse such as have been developed either for (1) expository prose by Meyer (1985), Kintsch (1974), Miller (1985), and Graesser and Goodman (1985), or for (2) narrative prose by Gülich and Ouasthoff (1985), Mandler and Johnson (1977), Labov and Waletzky (1967), and van Dijk (1973).

Some communication theorists have established a measure of the relationship between cognitive complexity and persuasive skill (O'Keefe and Delia, 1979). The most proximate studies to ours in discourse analyses are Kummer's (1972) linguistic analyses of argumentative text types and Kopperschmidt's (1985) analysis of argumentation. Kummer's macroanalytic system was used in a recent text analysis by Tirkkonen-Condit (1984) on argumentative prose, and by Connor and Takala (1985) in the analysis of persuasive student essays. Kopperschmidt (1985) suggested a two-level analytic method for argumentation, which has a macrostructural analysis with five stages and a microstructural analysis which aims to identify the detailed structure of individual partial argumentations by proceeding in three steps: (1) analyzing the role of an argumentative statement within a strand of argument; (2) analyzing the use of its argumentative potential in weakening or supporting a given validity; and (3) formally analyzing an argument's field-invariant and role-indifferent abstract patterns. He cites Aristotle's topoi and Perelman and Olbrechts-Tyteca's (1969) informal arguments as efforts to systematize such fieldindependent arguments.

Our analytic system is a variation of Kopperschmidt's formal analysis. To identify the features of texts that account for their persuasiveness, we (with the help of two research assistants, Mary Farmer and Janet Foltz) have developed an analytic system with 23 persuasive appeals consisting of four-

teen logical categories, four ethical categories, and five affective categories. Our system is based on the work of a number of rhetoricians. The direct source of our rational appeals is the work of Lauer et al. (1985) who developed a set of rational strategies for the production of persuasive discourse, based on Perelman and Olbrechts-Tyteca's (1969) work with informal reasoning. Lauer et al.'s system includes three quasi-logical appeals, six appeals based on the structure of the real, and five appeals establishing the structure of reality.

Our credibility and affective categories spring from Lauer et al.'s persuasive strategies, based on Aristotle's special topics and on theory and research by a wide range of rhetoricians, communication theorists, and psychologists on the ethical and emotional appeals in modern discourse, e.g. Karon (1976). Woods and Walton (1974), Hovland, Janis and Kelley (1953), Thompson (1967), and Abelson and Karlins (1970). Figure 2 shows our system of 23 appeals. Figure 3 shows examples of the appeals from the student texts.

Rational appeals

- 1. Descriptive example
- 2. Narrative example
- 3. Classification (including definition)
- 4. Comparison (including Analogy)
- 5. Contrast
- 6. Degree
- 7. Authority

- 8. Cause/Effect
- 9. Model
- 10. Stage in process
- 11. Means/End
- 12. Consequences
- 13. Ideal or Principle
- 14. Information (facts, statistics)

Credibility appeals

- 15. First Hand Experience
- 16. Writer's Respect for Audience's Interests and Points of View
- 17. Writer-Audience Shared Interests and Points of View
- 18. Writer's Good Character and/or Judgment

Affective appeals

- 19. Emotion in Audience's Situation
- 20. Audience's Empathy
- 21. Audience's Values
- 22. Vivid Picture
- 23. Charged Language

Figure 2. Persuasive appeals

Rational appeal

- 1. Classification involves putting the subject into a general class and showing the implications of the subject's membership in that class; includes definition
 - Vivisection is the use of animals in experiments. Many of them die and nearly all of the others end up suffering for the rest of their lives. Those which do die usually die a lingering, painful death. (Essay 32, episode 1)
- Contrast involves establishing differences among things perceived by the audience to be similar; includes refutation

I often ask myself what or who is god but I can never give myself an answer that I truly believe in. I am a Jewish girl and I have been brought up to believe how good God has been, how He has led us to the promised land, how He has given us the Toyah, Unfortunately, I don't think like this, I think of how He has let six million Jews die during the second world war and how Israel has caused many young Jewish men to be killed fighting for their homeland. (Essay 27, episode 1)

Credibility appeal

- 1. Shared interests refers to shared interests and points of view, accentuates similarities and minimizes differences
 - I agree that if they didn't give animals drugs or tablets then we would never find out whether these tablets would harm us in any way. I strongly think that in this day and age scientists now so equipped with highly expensive instruments could quite easily find the many answers without needing the help of animals. (Essay 2, episode 4)

Affective appeal

- 1. Appeals to reader's own situation by triggering an emotion that has personal relevance, such as fear, anger, and joy; e.g., 'it could happen to you'
 - Just think, a press of a button, thousands of miles away, could kill you, your family, your friends, all the inhabitants of your town. (Essay 7, episode 5)

Figure 3. Examples of the appeals

4. Procedures

4.1. The data

The compositions in the study were randomly selected from among the compositions of the project of the International Association for the Evaluation of Educational Achievement (IEA) entitled 'International Study of Written

Composition', which has been coordinated at the University of Illinois, Urbana (see Purves and Takala, 1982). The persuasive task required the students to choose and explain an important problem in their community or in youth life and offer solutions to it (see Appendix 1 for the task description).

Fifty compositions were chosen randomly out of thousands of compositions written by U.S. high-school students of 16 years of age in a Midwestern high school. Fifty compositions were also randomly chosen from among compositions written by high-school students of the same age in England. (The final data set for the project will include 50 randomly selected compositions from New Zealand for purposes of cross-cultural comparisons.)

5. The data analyses and discussion of results

5.1. Holistic ratings

The compositions were rated for overall quality by three independent raters -Ph.D. students in Purdue University's Rhetoric and Composition Program who had several years' experience in teaching and evaluating writing. The raters were shown the task description, and were told to base their general impression markings on how well the composition fulfilled the task and topic requirement. The raters were asked to work quickly at a single session supervised by the researcher. The agreement among the raters was high, the Cronbach alpha (using SPSS program RELIABILITY) being .83.

5.2. Coherence and cohesion ratings

Two independent raters analyzed coherence in the essays using Bamberg's coherence scale. Two separate training sessions were held where the raters tried out the scale on a small number of compositions and later discussed the results. The interrater reliability of coherence ratings was relatively high; Pearson's product moment correlations are shown in Table 1.

The figures show that the two lowest correlations were achieved for Cohesion and Closure. Cohesion was expected to be difficult to agree upon impressionistically. Closure was found to be an ambiguous concept as it is difficult to determine whether closure refers to the ending of a composition or endings of individual episodes.

Table 2 shows the correlations of the holistic scores with coherence ratings, using Bamberg's scale.

Table 1. Pearson's correlation coefficients for inter-rater reliability of coherence ratings

| Table 2. | Pearson's correlation co- |
|----------|------------------------------|
| | efficients between holistic |
| | scores and coherence ratings |
| Focus | .64* |
| ~ | 201 |

| | • | | Ü |
|--------------|------|--------------|------|
| Focus | .62* | Focus | .64* |
| Context | .68* | Context | .59* |
| Organization | .62* | Organization | .75* |
| Cohesion | .50* | Cohesion | .73* |
| Closure | .56* | Closure | .67* |
| Grammar | .71* | Grammar | .70* |
| * p < .01 | | * p < .01 | |
| | | | |

The correlations were all very high, which warrants a future examination of shared variance among the categories. In addition, a future study should examine the relationships of a single coherence score and scores on the separate categories of the Bamberg scale.

Further, it should be noted that Organization had the highest correlation with holistic scores concurring with findings by earlier studies on coherence by Lautamatti (1978, 1980), Connor (1984), and Connor and Farmer (1985) that show coherence to be related to the order and development of ideas and sub-topics in discourse. Surprisingly, Context received the lowest correlation coefficient, suggesting that the writer's setting of a situation was not important for the holistic raters of these essays. This finding is in direct conflict with previously published works on the importance of the proper pragmatic context of the task given to American readers or listeners (Tannen, 1980; Connor and McCagg, 1983). The explanation of this contradictory finding may be that even though an adequate setting is required of accomplished texts, teachers evaluating these student compositions may provide the context themselves while reading the composition.

Cohesion analyses were conducted by one research assistant (Julie Farrar). The results yielded counts of referential ties and three kinds of lexical ties adapted from Halliday and Hasan (1976): repetition; synonyms; and other lexical cohesion, namely superordinate words, general words, and collocation. A decision was made to collapse Halliday and Hasan's categories of subordinate, general words, and collocation ties into one category, called 'other lexical cohesion' because of the difficulty of distinguishing between these types, in these particular essays. In addition to Halliday and Hasan's reference and lexical categories, we added two categories of failed cohesion: referential and lexical interruption. Examples of all the cohesion types are given in Table 3.

The results from the correlational analyses of holistic scores with cohesion variables confirm previous research by showing little correlation between cohesion frequency and writing quality (Connor, 1984; Witte and Faigley, 1981). Surprisingly, a negative relationship was found between writing quality and the use of synonyms, other reiteration except repetition, and collocations. A significant positive relationship was found, however, between repetition and holistic ratings (r = .22, significant at the .05 level). Based upon previous published research (Connor, 1984; Witte and Faigley, 1981), it was expected that lexical variety in essays would be one predictor of writing quality.

To answer the research question about the relationship between actual cohesion counts and impressionistically rated cohesion — one of the Bamberg categories - correlation coefficients were calculated. The results show (Table 3) that there was a significant positive relationship between the impressionistic cohesion category and both repetition and our third lexical category (which included collocation and superordinate and general-word relationships). Referential ties and referential interruption showed a significant negative relationship. This may suggest that the teachers who evaluated these compositions view cohesion more as a lexical relationship than as cross-reference.

5.3. Persuasiveness

To identify persuasive appeals, two raters first segmented the compositions into episodes. We used the episodes as the unit of analysis because an appeal often spans more than one sentence, making sentential and clausal units too discrete to allow for a reasonable analysis. The episode is primarily a semantic unit of discourse that can be defined 'in terms of some kind of "thematic unity" (van Dijk, 1982: 177). The episode appears to have some 'psychological relevance' for discourse processing that neither the sentence nor the clause possesses (van Dijk, 1982: 178; see also Black and Bower, 1979;

Table 3. Pearson's correlation coefficients between cohesion counts and Bamberg's cohesion category

| | Words |
|--|-------|
| Reference ties | 30* |
| Repetition ties | .34** |
| Synonym ties | 05 |
| Superordinate, general word and collocation ties | .30* |
| Referential interruption | 31* |
| Lexical interruption | 07 |

^{* =} p < .05

Examples of each type of cohesion tie:

Reference: It's all right for the top politician and the government, they're safe and sound in nuclear bunkers. They don't care.

Repetition: Say one of these missiles accidentally are fired, a war would start immediately. Or a captain or a submarine, suddenly has some kind of fit which results in him firing a missile - it could happen. A war could begin at any time.

Synonym: OK we have a youth club but it is once a week and for younger people so how can 16-17 year old people go to 13-14 year old childrens youth club. Once again we have a disco once every two weeks but for younger children.

Superordinate: Once the seal is dead, they use all of the body. The blood of the animal is used as oil, to burn in their simple lamps.

General word: I stand firm with my opinion of the cull, and I hope and know that some people will either turn from killing the seals and stand against it, or will continue to protest. I am sure that many will agree with me when I state that it is much nicer to see a family of cuddly seal creatures picturesque a lonely mountain scene than it is to see models show off their fur coats to people on the covers of magazines.

Collocation: Exam nerves are very common and could often make a child fail their exam even though they may be very intelligent. The examiners do not seem to realize how much revision some-one must do just to answer a few questions.

Referential interruption: The examiner who marks the exams does not know anything about the knowledge of particular children and how well they cope with the subjects. All they go by is how well they have been able to answer the questions.

Lexical interruption: Then he said to the boy if you tell the teachers I'll beat you after school. The boy eventually got caught, and got expelled.

Haberlandt, Berian, and Sandson, 1980). We used van Dijk's criteria (van Dijk, and Kintsch 1983: 204) for episode boundary markers:

- 1. change of possible world
- 2. change of time or period

^{** =} p < .01

- 3. change of place
- 4. introduction of new participants
- 5. full noun phrase reintroduction of old participants
- 6. change of perspective or point of view
- 7. different predicate range (change of frame or script).

After determining the episodic boundaries, the two raters engaged in four types of analysis on fifty British compositions. First they identified types of rational, credibility, and affective appeals present per episode, using a coding guide of 14 rational appeals, 4 credibility appeals, and 5 affective appeals. Second, in cases where an episode contained combinations of the types of appeals, raters determined which type was dominant. Third, raters indicated whether an appeal was effective or ineffective in terms of appropriateness of content, sensitivity to reader, and/or evidence of control.

5.3.1. Interrater reliability

The highest interrater reliabilities, achieved with four raters using the Cronbach alpha, were .94 for the total number of rational appeals; .84 for the total number of affective appeals; .87 for the dominance of rational appeals; .87 for the dominance of affective appeals; .77 for the effectiveness of rational appeals; and .71 for the effectiveness of affective appeals. The highest interrater reliabilities of two raters (Pearson's correlation coefficient) on individual appeals were .84 for the credibility appeal of First-hand Experience; .81 for the affective appeal to Emotion in Audience's Situation, and .76 for the affective appeal of Audience's Empathy.

Individual appeals with mid-range (.40-.70) interrater reliabilities, based on two raters, were Narrative Example, Classification, Contrast, Cause/Effect, Model, Writer's Respect for Audience's Interests and Points of View, and Charged Language. Based on these interrater reliabilities, we had a range of nineteen variables with a potential for significant correlation with the holistic ratings.

5.3.2. Correlation between holistic ratings and appeals

Correlation between the holistic ratings and appeals revealed two significant (.001) relationships between ineffective use of the rational and credibility appeals and low holistic ratings on the essays. A ±-test on high versus low holistic scores in relation to the effectiveness of appeals revealed a significant correlation of 3.41 between ineffective rational appeals and essays judged to be lower in quality. These findings suggest that the variable, effectiveness of the appeal, does contribute to the overall quality of the persuasive essay.

Four individual appeals correlated significantly with the holistic rating: two rational appeals (Classification, including Definition) and Contrast; the credibility appeal, Writer-Audience Shared Interests and Points of View; and the affective appeal, Emotion in Audience's Situation.

6. Conclusion

The primary purpose of the present study was to identify reliable and valid indicators of writing quality in persuasive essays.

We were able to achieve high reliability among raters on coherence. In addition, we identified some measurable components of coherence and cohesion that had a strong correlation with the overall quality ratings of the essays. We found, however, that the validity of the coherence scale was questionable. All the subcategories had high correlations with the holistic ratings, suggesting that they may all measure the same thing. We plan to examine further the validity of the scale by (1) establishing the relationship between a single coherence score on an essay and scores on the separate categories, and (2) examining the shared variance among the subcategories with the holistic scores.

The cohesion analysis revealed, somewhat surprisingly, that lexical variety as a cohesion device was not related to the overall quality, while repetition was. Correlations of cohesion counts with the cohesion subcategories also indicated a strong relationship between lexical cohesion and the raters' perceptions of cohesiveness. Referential cohesion (successful and unsuccessful) had a negative correlation with the raters' estimation of cohesiveness.

These results suggest that the relationship between cohesion and holistic ratings is a complex one and may not be a useful measure for evaluating writing. We plan to examine the effects of cohesion in these essays simultaneously with coherence and appeal variables. We will also extend the analyses to the New Zealand essays to study cross-cultural differences in the use of cohesion.

For the twenty-three persuasive appeals with construct validity, we achieved strong interrater reliability for the total number, dominance, and effectiveness of the rational and affective appeals. High interrater reliability was determined for three individual variables, and mid-range reliability for

six individual variables. We discovered a significant correlation between holistic ratings and both the effectiveness of appeals and four individual appeals. One reason for finding significant relationships for only four appeals is that our data were high-school student texts, which might not have included as wide a range of appeals or as large a number of examples of any one appeal as one would expect to find in expert texts. (Effective persuasive discourse entails highly competent reasoning and writing skills.)

Our exploratory work on appeals suggests the following directions for future research:

- 1. use of regression analyses on the present data to determine percentages of variance explained;
- 2. use of more raters for the individual appeals;
- 3. factor analyses of appeals to create superordinate categories;
- 4. an analysis of a larger corpus of texts to increase instances of the rational appeals (We will analyze the data from the United States and New Zealand.); and
- 5. analyses of well-formed texts by expert persuaders to obtain more instances of effective use of a variety of appeals.

In this paper, we have offered preliminary findings from an ongoing project to identify and develop measures, both linguistic and rhetorical, to explain and evaluate persuasive student writing. We have shown that a comprehensive methodology needs to be multidimensional to account for a broad range of linguistic and rhetorical features that adequately explain the range of variation in persuasive writing quality among students.

Appendix A

Assignment

There are several things people can like or dislike in their life or the world around them. They might have noticed that young people find work or that people smoke in public places, or that the views of certain groups are not listened to. They might have noticed problems in their community that certain places are unsafe, that certain opportunities are missing, or that particular groups should get to understand each other better.

In this writing task, you have to explain what you think is an important problem in your community or in the life of the people your age. You can use one of the examples described above or choose a problem of your own.

You have to imagine that you have to write to people who can solve this problem but are not familiar with it.

Therefore, you should explain the problem clearly in order to convince your audience that the problem is an important one. After that, describe your plan for improving the situation in sufficient detail that they know what you want done. Be sure to give enough details, facts, and examples to support your description and suggestion.

Your composition should be 2 or 3 pages long. Before you give your composition in, reread it in order to see:

- 1. How clearly you have described the problem and your solution.
- 2. How convincing you have been in presenting your arguments.

Your composition will be graded according to the above criteria.

If you want to change or correct something you may do it on your original; you do not have to recopy the whole composition.

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References

- Abelson, H.I. and Karlins, M. (eds.) (1970). Persuasion: How Opinions and Attitudes are Changed. New York: Springer.
- Aristotle, (1954). Rhetoric and Poetics of Aristotle. Rhys Roberts (ed.). New York: Modern Library Edition.
- Bamberg, B. (1983). What makes a text coherent? College Composition and Communication 34: 417-429.
- (1984). Assessing coherence: a reanalysis of essays written for the National Assessment of Educational Progress, 1969-1979. Research in the Teaching of English 18 (3): 305-319.
- Berlin, J.A. and Inkster, R.P. (1980). Current-traditional rhetoric: Paradigm and practice. Freshman English News 8: 1-14.
- Black, J.B. and Bower, G.H. (1979). Episodes as chunks in narrative memory. Journal of Verbal Learning and Verbal Behavior 18: 309-318.
- Burke, K.B. (1969). A Rhetoric of Motives. Berkeley, CA: University of California Press. Campbell, G. (1963). The Philosophy of Rhetoric L. Bitzer (ed.). Carbondale, Il.: Southern Illinois University Press.
- Cicero (1942). De Oratore. E.W. Sutton and H. Rackham (Trans.) The Loeb Classical Library. Cambridge: Harvard University Press.

- Connor, U. (1984). A study of cohesion and coherence in English as a second language students' writing. Papers in Linguistics: International Journal of Human Communication 17 (3): 301-316.
 - and McCagg, P. (1983). Cross-cultural differences and perceived quality in written paraphrases of English expository prose. Applied Linguistics 4 (3): 259-268.
 - and M. Farmer (1985). The teaching of topical structure analysis as a revision strategy: An exploratory study. Paper presented at the AERA Conference, March 31-April 14, Chicago, Illinois.
 - and Takala, S. (1984). Argumentative patterns in student compositions: An exploratory study. Paper presented at the TESOL Conference, March 6-11, Houston, Texas.
 - Connors, R.J. (1981). The rise and fall of the modes of discourse. College Composition and Communication 20: 297-304.
- ✓ van Dijk, T.A. (1982). Episodes as units of discourse analysis. In Analyzing Discourse: Text and Talk, D. Tannen (ed.), 177-195. Washington, D.C.: Georgetown University
 - and Kintsch, W. (1983). Strategies of Discourse Comprehension. New York: Academic Press.
 - ~ (1973). Grammaires textuelles et structures narratives. In Semiotique Narrative et Textuelle, C. Chabrol, (ed.), 177-207. Paris: Larousse.
 - Enkvist, N.E. (1985). Introduction: coherence, composition, and text linguistics. In Coherence and Composition: A Symposium, N.E. Enkvist (ed.), 11-26. Abo: Publications of the Research Institute of the Abo Akademi Foundation.
 - Genung, John. (1985). The Practical Elements of Rhetoric. Boston: Ginn.
 - (1984), Outlines of Rhetoric. Boston: Ginn.
 - Graesser, A.C. and Goodman, S.M. (1985). Implicit knowledge, question answering, and the representation of expository text. In Understanding Expository Text, B.K. Britton and J.B. Black (eds.), 109-171. Hillsdale, N.J.: Lawrence Erlbaum.
 - Gülich, E. and Quasthoff, U.M. (1985). Narrative analysis. In Handbook of Discourse Analysis, Vol. 2, T.A. van Dijk (ed.), 169-197. London: Academic Press.
 - Haberlandt, K., Berian, C., and Sandson, J. (1980). The episode schema in story processing. Journal of Verbal Learning and Verbal Behavior 19: 635-650.
 - Halliday, M.A.K. and R. Hasan (1976). Cohesion in English. London: Longman.
 - Hovland, C.I., Janis, I.R. and Kelley, H.H. (1958). Communications and Persuasion. New Haven, Conn.: Yale University Press.
 - Karon, L.A. (1976). Presence in The New Rhetoric. Philosophy and Rhetoric 9: 96-111.
 - Kinneavy, J. (1971). A Theory of Discourse. Englewood Cliffs, N.J. Prentice Hall.
- Kintsch, W. (1974). The Representation of Meaning in Memory. Hillsdale, N.J.: Lawrence Erlbaum.
- Kopperschmidt, J. (1985). An analysis of argumentation. In Handbook of Discourse Analysis, Vol. 2, T.A. van Dijk (ed.), 159-168. London: Academic Press.
- Kummer, W. (1972). Aspects of a theory of argumentation. In Textsorten, E. Gülich and W. Raible (eds.) 25-49. Frankfurt: Akademische V.G.
- Labov, W. and Waletsky, J. (1967). Narrative analysis: Oral versions of personal experience. In Essays on the Verbal and Visual Arts, J. Helm (ed.), 12-44. Seattle: University of Washington Press.
- Lauer, J.M., Montague, G., Lunsford, A., and Emig, J. (1985). Four Worlds of Writing, 2nd ed. New York: Harper and Row.
- Lautamatti, L. (1978). Observations on the development of the topic in simplified dis-

- course. In Text Linguistics, Cognitive Learning, and Language Teaching, V. Kohonen and N.E. Enkvist (eds.), 71-104. Abo: AFinla.
- (1980). Subject and theme in English discourse. In Papers in Discourse and Contrastive Discourse Analysis. K. Sajavaara and J. Lehtonen (eds.), 188-202. Jyväskylä: Reports from the Department of English, University of Jyväskylä.
- Lindeberg, Ann-Charlotte, (1985). Cohesion, Coherence Patterns, and EFL Essay Evaluation, In Coherence in Composition: A Symposium, N.E. Enkvist (ed.), 67-92. Åbo: Publications of the Research Institute of the Åbo Akademi Foundation.
- Mandler, J.M. and Johnson, N.S. (1977). Remembrance of things parsed: A story structure and recall. Cognitive Psychology 9: 111-151.
- Meyer, B.F. (1985), Prose analysis: Purposes, procedures, and problems. In Understanding Expository Text, B.K. Britton J.B. Black (eds.), 11-64, Hillsdale, N.J.: Lawrence Erlbaum.
- Miller, J.R. (1985). A knowledge-based model of prose comprehension: Applications to expository texts. In Understanding Expository Text, B.K. Britton and J.B. Black (eds.), 199-226. Hillsdale, N.J.: Lawrence Erlbaum.
- O'Keefe, B.J. and Delia, J.D. (1979). Construct comprehensiveness and cognitive complexity as predictors of the number and strategic adaptation of arguments and appeals in a persuasive message. Communication Monographs 46: 231-240.
- Perelman, C. and Olbrechts-Tyteca, L. (1969). The New Rhetoric, J. Wilkinson and P. Weaver (trans.). Notre Dame: University of Notre Dame Press.
- Purves, A. and Takala, S. (ed.). (1982). An International Perspective on the Evaluation of Written Composition. London: Pergamon Press.
- Ouintilian (1920-1922). The Institutio oratoria of Quintilian, H.E. Butler (trans.). The Loeb Classical Library. Cambridge: Harvard University Press.
- Tannen, D. (1980). A comparative analysis of oral narrative strategies: Athenian Greek and American English. In The Pear Stories, W.L. Chafe (ed.), 51-88. Norwood:
- Thompson, W.N. (ed.). (1967). Ouantitative Research in Public Address and Communication. New York: Random House.
- Tirkkonen-Condit, S. (1984). Toward a description of argumentative text structure. Paper presented at the Second Nordic Conference of English Studies. (Forthcoming, Abo: Abo Akademi Foundation Publication Series.)
- Whately, R. (1963). Elements of Rhetoric. D. Ehninger (ed.). Carbondale, Il.: Southern Illinois University Press.
- Wikborg, E. (1985). Types of coherence breaks in university students' writing. In Coherence in Composition: A Symposium, N.E. Enkvist (ed.), 67-92. Abo: Publications of the Research Institute of the Abo Akademi Foundation.
- Witte, S.P. and Faigley, L. (1981). Coherence, cohesion and writing quality. College Composition and Communication 22 (1): 189-204.
- Woods, J. and Walton, D. (1974). Argumentun ad Verecundium. Philosophy and Rhetoric 7: 135-153.
- Young, R.E., Becker, A. and Pike, K. (1970). Rhetoric: Discovery and Change. New York: Harcourt Brace Jovanovich.

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Abstraction levels in student essays

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Abstract

Traditionally, a certain depth in the development of ideas together with an adequate support of statements have been thought to characterize good essays. The problem, however, has been how to describe the presence or absence of these characteristics in a model systematic and concrete enough for diagnostic and pedagogic purposes.

The present study is an attempt at constructing such a model, by building on concrete linguistic evidence in the text: the guidance given to the reader by not only connectives and metatext, but also by identifying each cohesive tie from each theme to a preceding or subsequent theme or rheme, and from each rheme to a preceding or subsequent rheme. Thus one arrives at a method for the description of (a) coherence, and (b) the direction of, or the lack of movement in, the levels of abstraction. The model helps us to differentiate between good and poor student essays on more than intuitive grounds.

1. Why is it important to take an interest in abstraction levels in student writing?

Of the countless pertinent observations that have been made about student writing, one by Mina Shaughnessy is especially relevant here:

Basic Writing students are often said to be "concrete" rather than "abstract" thinkers, or to lack conceptualizing powers. (—) The problem in most Basic Writing papers lies in the absence of movement between abstract and concrete