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## Bilingual creativity, multidimensional analysis, and world Englishes

WENDY BAKER\* and WILLIAM G. EGGINGTON\*\*

**ABSTRACT:** Research in world English literatures has concentrated on qualitative measures of analysis in order to understand what is meant by 'bilingual creativity.' These measures demonstrate that there are differences in rhetorical and literary style within world English literatures both in the inner and outer circle. Using Biber's multidimensional analysis (1988) to examine a large corpus of world English literatures written in Indian, West African, Britain, Anglo-American and Mexican American varieties of English, this paper examines whether quantitative analyses can also be insightful and useful in the examination of world English literatures in expanding our understanding of what 'bilingual creativity' entails. The results of this study reveal that computational methods of analyzing texts both confirm former research comparing differences between texts written in different varieties of English and also shed new light on differences that exist between these varieties.

### INTRODUCTION

Most of the research done on world English literatures has used qualitative measures to examine linguistic and rhetorical differences in literatures written across varieties. In fact, linguistic theory has been applied productively to world English literatures in many capacities, for the purpose of discovering the mechanisms, purposes and characteristics that mark 'bilingual creativity.' Some of these studies include examining the use of speech acts in Indian English (D'Souza, 1991) code-mixing in Nigerian English (Kamwangamalu, 1992), the marking of ethnicity in Malaysian English (Lowenberg, 1992), and gender marking in several varieties of English (Valentine, 1992). These studies have shown that literatures written in different varieties are as unique as the varieties themselves.

Analyzing the works of one author and comparing his or her use of language to others' is a necessary qualitative means of defining and understanding bilingual creativity. However, examining and comparing several authors from the same variety with several authors of other varieties is also necessary if we are to define what it means to write creatively as a British or Nigerian or Mexican American author. Such an examination is difficult because linguistic analyses are often too complex to reasonably compare large amounts of data across a large corpus.

One relatively new method of analyzing texts is using computational analyses. These methods examine several aspects found in one text or group of texts and then compare these aspects to those found in others. The research of Biber (1988) has been particularly productive in using computational measures to accurately identify differences across genres and varieties of English. Several researchers have used his computer program to examine style in the works of a single author (for example, Watson, 1994), comparisons of genres across time (Biber and Finegan, 1992) and genres across languages (Korean, English and Somali) (Biber and Hared, 1992) and authors across time (Connor-Linton,

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1988) (see Biber, 1993 and 1995 for a review of studies using his computational analysis; see Watson, 1994 for a critique of the method). Each of these studies reveals striking differences between the use of language by different authors and speakers across and within genres.

Can computational methods be used to successfully and insightfully analyze literary texts written in different varieties of English by several authors? Would such a method provide insights into literature that we have been unable to examine in other ways? The goal of the study presented in this article is to answer these questions, to determine whether computational methods of analysis support the findings of other researchers and/or contribute to our growing understanding of 'bilingual creativity.'

### PAST RESEARCH ON THE FIVE VARIETIES

In order to analyze the validity of Biber's method in comparing world English literatures, we chose five varieties of English: British, Anglo-American, Indian, West African, and Mexican American. Each of these varieties represents a unique position in the circles of English speakers. Thus, comparing the writing in these various varieties may indicate how creative writing differs depending on the culture of the author.

Although no study has been done comparing all of the varieties used in this study to each other, several studies have been done comparing a nativized variety of English to the British or Anglo-American variety. Thus, this section summarizes the history of each variety of English and notes their different syntactic and rhetorical styles. This section also reviews the history of the English literary tradition in each of the nativized varieties.

#### *Anglo-American and British*

Most scholars view syntactic differences between Anglo-American and British varieties as few and minor for the most part (Greenbaum, 1988, quoted in Cheshire, 1991: 5). However, one study by Biber (1987) discovered that the American variety is more informal than the British one. Indeed, if there is a difference between the two varieties, it is that the American variety has accepted less formal features and has accepted more changes in the vocabulary than has the mother country. Therefore, although both Anglo-American and British writers represent the Inner Circle of monolinguals, both are used in this study because all other varieties of English have been influenced by either one or the other (Trudgill, 1984). We also chose to use both varieties to determine how similar they are to each other.

#### *World Englishes*

The three 'new' or 'nativized' varieties of English were chosen because each has different oral and written traditions as well as a unique English writing history. Thumboo (1992) suggests that nativized varieties come from three traditions. The first group comprises those nations that 'claim long and elaborate written and oral literary traditions' in other languages, nations such as India, Sri Lanka, and Malaysia (p. 257). From this group we chose the Indian variety of English because, out of all the commonwealth countries, Indian writers have been writing creatively in English for the longest time.

The second group that Thumboo discusses comprises cultures that have 'powerful, sophisticated oral traditions,' among which are the African countries, Papua New Guinea, and Samoa (p. 257). In these cultures, writers may be the first generation to learn a

language that has a written system. From this group we chose West African texts because they have been noted for their great linguistic variety. Also, in contrast to Indian writers, West African writers are among the most recent to begin writing creatively in English.

Finally, the third group discussed by Thumboo includes cultures where an 'Anglo culture and/or power dominates indigenous peoples' (p. 258), such as the relationship between Mexican Americans and Anglo-Americans, between aborigines and Australians. We have chosen texts by Mexican American authors because Mexican American writers have a unique position in that they are bilingual writers but they live in the inner circle and are, for the most part, taught formally only in English even though they may be bilingual in Spanish as well. Each of these three varieties of English are discussed in more detail below.

### *Indian*

The English language and its culture came to India about the same time it went to America; in 1600 Queen Elizabeth granted a trade charter with the country and relationships with India began, a relationship that eventually developed into colonial rule. In 1947, after 200 years as a British colony, India finally gained its independence from England, but kept English as an official language. Since England controlled India for so long, English has become deeply embedded in the workings of the country. For example, most of the legal and administrative work is still done in English. Many of the colleges and universities in India are English-speaking and English is still spoken by 333 million Indians (Braj Kachru, 1992: 141). However, for most Indians, English is a second or third language and relatively few speakers interact frequently with native English speakers (Braj Kachru, 1988: 94).

Although several linguists have concluded that the syntax of Indian English differs little from British English, Braj Kachru (1983) has found that Indian English tends to have more finite verbs, uses interrogative, negative, modalized verbs and progressive aspect differently than British English (pp. 34–5). Indian English also has, as do most nativized varieties, several lexical borrowings from other languages that are not found in other varieties of English (Kachru, 1983). In contrast, Kachru also found that there was no significant difference in the use of passive, preterite, continuous or perfect verbs (p. 33).

Even though some differences in syntax and semantics are noted in Indian English, some critics argue that Indian English is little more than a variety for the 'educated elite' based on 'archaic British grammar books,' a variety whose innovation has been 'stifled' by formality (Gupta, 1990, p. 153). Other critics disagree, stating that English in India is decidedly 'Indian' (Yamuna Kachru, 1988; Iyenger, 1962; King, 1980), integrated into the country and the culture (Braj Kachru, 1986).

In any case, Indian English does have several unique characteristics in discourse style, the most widely acknowledged of which is its 'flamboyance' or ornate style, which is the result of the 'interaction of oral and literate traditions' of English and other Indian languages, such as Hindi and Sanskrit (Yamuna Kachru, 1988). Specifically, Braj Kachru notes that Indian English has a greater 'reduplication of item,' 'stylistic embellishment,' and a greater tendency toward complex sentence structure (1983; 1986). He has noted these same characteristics in texts written in Sanskrit, which also have a more ornate style than British literary texts do.

Yamuna Kachru has also discovered that Indian English is more circular than linear in development, perhaps because Hindi is circular in its logical development. For example, Indian writers use more *ands* and less *buts* or *ifs* as conjunctions, further evidence that

Indians think in examples and not in exceptions or differences, using a language that never 'turns across itself or against itself' (Rajan, 1974: 86).

Indian English writers receive international attention because of the quality and uniqueness of their literature. It is difficult to generalize themes and elements of Indian English literature because the diversity of literature in India is as great as its diversity of culture and peoples. However, as Indian authors depict their experiences in India, those who use English are said to be 'concocting an English that is Indian' (Rajan, 1974: 84). Thus, writers such as Kamala Das and Raja Rao are accepted in their country because their writing, though in English, is decidedly Indian with Indian English and Indian themes.

### *West African*

When European missionaries entered West Africa in the 1840s, directed by the British crown, they began teaching English. Most of the missionaries, however, were not British, but were Scottish, American, German, and French (Jibril, 1982: 74). Such a combination of teachers and speakers may account for the uniqueness of West African English, which combines colloquialisms of many languages with the syntax of English. Most West African countries use English as only one of many languages and in some countries it is only spoken by a small elite few.

West African Englishes have many of the same characteristics in both speech and written communication. Research studying Nigerian English suggests this variety contains article deletion and changes in verb tense (Jibril, 1982), as well as distinct semantic shifts (Bokamba, 1992), differences which may be the result of first language interference. Akere (1982) suggests that each tribe uses its own version of English so that there is not just one Nigerian English but several. Other findings indicate that Ghanaian texts do not differ substantially from American texts in terms of modality (Owusu-Ansah, 1994). Some scholars have accused Nigerian English of being 'fluent but unidiomatic English' because it is learned much more than it is acquired (Akere, 1982).

The English literary tradition in West Africa began in the 1950s, during the decolonization of the commonwealth. Early writers include Nguig wa Thiong'o and Chinua Achebe, both of whom write extensively about the effects of colonization in Africa. More than any other writers, West African authors are noted for their ability to depict local languages through English texts. Now, however, for most African writers, the difficulties of colonialism are behind them. They now write about their own traditions, the uniqueness of West Africa, the uniqueness of their problems and challenges as a developing nation (p. 45).

Besides having a distinct writing style, Nigerian English writers also follow certain themes and patterns, most of which are based on their oral tradition and history as a colonized area. Most African writers use the music, poems, myths, proverbs, and stories of origin as motifs in their own short stories written in English. In fact, some critics state that it is impossible to understand African literature without understanding their oral and cultural traditions (Wanjala, 1988: 67; Balogun, 1991).

### *Mexican American*

Chicano English, or Mexican American English, for many years was not considered a distinct variety of English. Many scholars insist that Mexican American English is merely

an intermediary language for Spanish speakers attempting to learn English (see Gonzalez, 1984). Others conclude that Chicano English is no more than the regional dialect spoken 'with a Spanish accent' (see Metcalf, 1979; and Gonzalez, 1976 for a discussion of many opinions about this variety).

Several syntactic differences between Anglo-American and Mexican American English have been found. Many of the differences can be traced to Spanish influence. For example, Chicano English speakers use the simple present tense when the present progressive is usually used in Standard American English (e.g. 'He sleep now'); use the negative structure 'to not + verb' or 'to don't + verb' for negative infinitives (e.g. 'to not be clean') (Gonzalez, 1976). However, many other constructions cannot be attributed to either second language acquisition or Spanish influence (Wald, 1984). These include differences in the use of adverbials and dependent clauses.

Differences between Anglo-American and Mexican American English are noted particularly in rhetorical styles. Studies comparing Mexican, Mexican American, and Anglo-American texts written by high-school students determined that Mexican American texts 'sound like scripts of oral conversations' (Montano-Harmon, 1991) and tend to be less formal than those written by Anglo-Americans. Montano-Harmon also found that the Mexican American texts contain more fragments, run-ons, digressions, and repetition. Recently, studies done on Mexican American, Anglo-American and Mexican students indicate that Mexican American student writing shows Spanish influence, but the extent of this influence changes as students mature (McClure, Branstine and Platt, 1990). Other studies conclude that 'general narrative structure did not differ' in Mexican and American texts, except that Mexicans describe their emotions and 'personal traits' more (McClure, Mir and Cadierno, 1993).

The English literary tradition of Mexican Americans is relatively new, as it is with most new literatures in English. Most texts combine the myths and legends of Native Americans, the culture of Mexico, and the literary tradition of Anglo America. Thus, texts usually contain code-switching, and may have one or more characters who only speak Spanish. Themes of the literature tend to be about the difficulty of living in two cultures, the Mexican and the American, and the prejudice that accompanies being considered 'Mexican' in the United States and 'American' in Mexico.

## THE CORPUS

Within each of these five varieties, we randomly chose 20 short stories, 10 written by male and 10 by female authors, from a total of 100 short stories altogether.<sup>1</sup> All texts were originally written in English and published between 1970 and 1994. The corpus contains approximately 300,000 words. The corpus was scanned into computer readable format, checked for accuracy, tagged using Biber's tagging program, once again checked for accuracy and then a multi-dimensional factor analysis was conducted on the tagging counts as well as a General Linear Models procedure with 'variety' as an independent variable and individual factors as dependent variables.

One of the most difficult aspects of this study was ensuring that the texts were comparable. Literary authors and the texts they produce are and should be known for their vast creativity and uniqueness, a characteristic that makes valid comparisons difficult. Therefore, when comparing these texts, we took careful notice of the following five criteria that are necessary in order for the study to be valid (Purves, 1988). The first

criterion is that all texts must be written in settings 'which are as similar as possible' (p. 5), 'Similar setting' means that both the audience and purpose of the writings should be similar. For many contrastive rhetoric studies, the setting is a classroom and the purpose is to complete a writing examination. In this study, the 'setting' is a published journal in which short stories are produced. The audience is the citizens of the author's country or culture.

The second criterion is that all texts must be 'consistent in [their] function and cognitive demands as well as in the specific subject matter' (p. 16). Thus, each text should be of the same genre, and that genre should be perceived as completing the same function. In order to understand how a genre could be conceived as having several functions, Vahapassi (1988) cites the example that, for some cultures, a letter of apology is written to express sorrow and to accept blame for an incident. For other cultures, it is written to explain an error and to lessen the author's blame. Thus the writing and the focus of the letters will be completely different, making a comparison of the letters of apology of the two cultures invalid (Vahapassi, 1988). This study uses texts of all the same genre, the short story. Because they are written for journals that are meant to entertain, all the short stories are also assumed to perform basically the same function.

The third criterion is that the language in all the texts 'must be defined' (Purves, 1988: 16). Since all texts are written in English and the entire text was used for each short story, this third criterion is met. Fourth, the occupation of the writers should be similar (p. 16). Meeting this criterion is especially important because each occupation usually has its own rhetorical style. Most of the writers in this study are professional writers and/or university professors and so the occupations are relatively similar. The final criterion is that the educational level of all the writers is similar (p. 17). Most of the authors in this study are some of the most educated in their countries or cultures. Following these five criteria reduces variability and limits error in analysis (p. 17).

### BIBER'S COMPUTATIONAL ANALYSIS

The themes and constructions found in these several varieties of English have been noted in the works of many writers of the variety. The question of this study is to determine if these same differences are evident when using linguistic tagging. One way to measure differences across a large body of texts using Biber's multidimensional analysis is to determine whether literary texts written in different varieties exhibit more or less typical characteristics of oral communication. Other studies have revealed that varieties based on an oral tradition show customary characteristics of oral communication even in written texts (Tannen, 1982; Labov, 1976). Thus, writers who are from cultures with long oral traditions may blend the literary traditions of English with the oral traditions of their other languages.

Biber's method is particularly useful for this type of analysis because his main purpose in creating the computational analysis was to determine differences between spoken and written language (1988). His database is composed of several genres of both written and spoken English and the texts used in this study are compared to the results of different types of genres to determine whether the texts have more characteristics of written or spoken discourse. To do so, the program uses linguistic tagging and factor analysis in order to determine the frequency of certain linguistic features such as first person pronouns, passive constructions, and *wh*-questions as well as their multi-dimensional relationships.

Biber's multivariate analysis 'tags' or recognizes the use of first person within a text and then compares this factor to other texts' use of this feature. In doing this factor analysis, the texts are located within five dimensions. These five dimensions are

1. Involved vs. informational discourse
2. Narrative vs. non-narrative concerns
3. Explicit vs. Situation-dependent Reference
4. Overt expression of persuasion
5. Abstract vs. Non-abstract Information

These dimensions are on a continuum, so that a text is not 'abstract' or 'non-abstract,' but is either 'less abstract' or 'more abstract.' Each dimension represents a different perspective of the texts. For example, a personal letter, because it usually employs first person pronouns, active verbs and other linguistic features, usually scores high on dimension 1, nearer to the 'involved' side of the axis. In contrast, a scientific article, because it usually contains passive verbs and other linguistic features, scores low, closer to the 'informational' side of the same axis. However, most personal letters contain non-abstract information and therefore score lower on dimension 5. Biber's analysis gives a score to each text for each dimension. A longer discussion of each of these dimensions is given below.

### *Hypotheses*

Our first hypothesis is that the three 'new' varieties of English would score similarly to each other on the five dimensions and significantly differently from the two standard varieties. According to research done by Biber (1988), dimensions 1, 3, and 5 determine most significantly oral/literate dimensions of the text or corpus of texts. Therefore, our first hypothesis was that West African authors, since they come from oral cultures would score most closely to oral texts, then Indian writers whose cultures are based on both oral and literary traditions, then Mexican American writers who have formal training in English but have a Spanish oral tradition as well. Oral texts tend to be more involved (dimension 1), more situation-dependent (dimension 3) and less abstract (dimension 5). Each variety of English, however, was compared to every other variety on each of the dimensions, and was also compared with other genres, both oral and literate texts, in order to complete the analysis. On dimensions 2 and 4, we hypothesized that the nativized varieties would score closer to the scores obtained for texts written in the 'standard' varieties on which they are based, Anglo-American and British. Thus, perhaps Mexican American texts would score closer to Anglo-American texts and Indian and West African texts would score closer to texts written in the British variety of English.

Our second hypothesis is that texts written in the Anglo-American and British varieties would score very similarly to each other. Since both are considered 'standard' English and since both relatively recently come from the same writing tradition (American literary tradition has its roots in England), we assumed that their writing on all five dimensions would be quite similar.

### *Results*

Table 1 below lists the five varieties and their mean scores on each of the dimensions. As the table indicates, dimensions 3 and 5 showed statistical significance, suggesting that the texts do differ in their use of features associated with spoken and written discourse. Since



Table 1. Mean dimension scores for each of the varieties of English

	African	Anglo-American	British	Indian	Mexican American	Significance
Dimension 1	10.6	9.7	8.1	7.1	4.9	ns
Dimension 2	6.9	6.1	4.9	4.7	4.0	ns
Dimension 3	-2.1	-4.3	-1.7	-1.9	-2.4	* $p = 0.01$
Dimension 4	2.0	-3.4	-4.0	-3.6	-0.7	ns
Dimension 5	-0.7	-1.1	0.0	-0.6	-0.6	* $p = 0.03$

\* $p < 0.05$ ; ns = non significant.

interesting patterns are found on each dimension, we will briefly discuss all five, explaining in more detail the properties of each dimension.

*Dimension 1: Involved versus informative discourse.* Dimension 1 most effectively determines spoken from written discourse and also is the dimension that compares the most linguistic features (Biber, 1988: 104). 'Involved' discourse usually attempts to describe more relational, more immediate ideas and is most like here-and-now, face-to-face communication. On the other hand, texts which score on the negative side of this axis, or on the 'informational' side, are stereotypically 'scientific' prose, prose that tends to convey more information with fewer words. There is no statistical significance on dimension 1, which indicates that the texts varied little with respect to involved versus informational production. Interestingly, however, the same pattern is found on this dimension as was found on all the other dimensions: West African (10.1) texts score closer to Anglo-American texts (9.7) than they do to British texts. Even more surprising was the fact that Mexican American (4.9) texts score lowest, or most informational, of the five varieties, scoring closer to the British (7.1) and Indian (8.1) texts.

*Dimension 2: Narrative versus non-narrative concerns.* Linguistic features on this dimension determine how much a text reveals a narrative style. Features that cause a text to be 'positive' or 'narrative' include past tense verbs and third person pronouns, features that are usually associated with telling stories. Other positive features are identified because of their ability to create 'vivid images in depicted discourse' (Biber, 1988: 105). Negative or 'non-narrative' features are identified by their 'immediate time and attributive nominal elaboration' (p. 105). These features include present tense verbs and attributive adjectives. Non-narrative texts tend to describe static events that occur in the present (p. 105). Of course, all of the varieties scored similarly on this dimension and close to the average scores found by Biber for narrative texts, since the texts used in this study are all narratives of some sort. On dimension 2, West African texts had more characteristics of narrative texts than any other variety. Their maximum score on dimension 2 (6.9), in fact, was the much higher than the other five varieties (Anglo-American, 6.1; British, 4.7; Indian, 4.9; Mexican American, 4.1).

The texts' scores on these first two dimensions are so similar that any discussion on why they differ would be highly speculative. In any case, the pattern found on these dimensions is similar to the pattern found on the other dimensions as well.

*Dimension 3: Explicit versus situation dependent reference.* Dimension 3 indicates how much the text indicates context. Texts that are identified as 'explicit' refer to generalized events that occur outside the text and are not limited to a specific context. Features that make a text more 'explicit' are WH-relative clauses on subject and object positions, nominalizations and pied piping constructions, all of which are found in texts that have positive scores on this dimension (Biber, 1988: 110). In contrast, 'situation-dependent' references use discourse markers that refer to events in the actual text (phrases such as 'see above' or 'listed below' are examples (p. 110)). The negative features associated with this dimension also include time, place, and other adverbs because they tend to be used as deictic expressions that require the reader to understand a specific context. There is significant difference on this dimension, suggesting that texts from different cultures do differ depending on their use of explicit discourse markers and their use of abstract language. On dimension 3, oral texts typically score closer to the 'situation dependent' side of this axis, and would therefore have more negative scores than written texts do. Anglo-American texts (-4.3) score closest to the situation dependent side of the axis, followed by Mexican American (-2.4), African (-2.1), Indian (-1.9) and British (-1.7) texts.

*Dimension 4: Overt expression of persuasion.* The features on dimension 4 determine how much the texts attempt to persuade the reader or how much they reveal the speaker's attitude and point of view. Modals are the markers of persuasion, as are conditional subordination and suasive verbs (*command, demand, instruct*) (Biber, 1988: 111). Infinitives, however, are weighed heaviest on this dimension because they tend to be used with adjective and verb complements. In turn, these head adjectives and verbs usually describe the author's attitude about the action described in the infinitive (for example 'wanted to do right,' 'sad to have left'). Since there are no negative features found on dimension 4, negative scores are determined by their lack of the linguistic features listed above.

On dimension 4, West African texts (2.0) scored the highest again (the most overtly persuasive), and were the only texts to score positively on this dimension. Anglo-American (-3.4), Indian (-3.6), British (-4.0), and Mexican American (-4.5) all score on the negative side of this axis. Of note is the fact that British and Indian texts score very close to each other on this dimension as they have on all the other dimensions mentioned so far (4.7 and 4.9 on dimension 2 and -4.0 and -3.6 on dimension 4), closer than any other two varieties.

*Dimension 5: Abstract versus non-abstract information.* Texts on dimension 5 are scored based on how technical, formal, and abstract they are. Positive features include conjunctions, agentless passives, past participial clauses, and by-passives. Only one feature, type-token ratio, contributes to negative scores on this dimension. The reason this feature causes negative scores is that abstract writing uses only a small, specialized vocabulary in its discourse, whereas non-abstract discourse has more variety in its vocabulary. As Table 1 indicates, scores on dimension 5 follow the same pattern as on dimension 3. Anglo-American texts (-1.1) score the least abstract of the five varieties on the 'abstract/non-abstract' continuum, followed by West African (-0.7), Mexican American (-0.6), Indian (-0.6), and British texts (0.0) in that order. All these scores are low on this axis, as are other oral texts such as face-to-face conversations and telephone conversations.

## DISCUSSION

The major goal of this study was to analyze whether the results from Biber's computational analysis in any way support the past findings of differences in varieties of English and if it would be able to shed new light on stylistic and rhetorical differences in world English literatures. The results of this study provide evidence that computational analyses can be used to examine differences in literary styles across varieties of English. As shown above, differences between the five varieties of English seem to indicate that different cultures prefer different creative writing styles, that each variety of English also has its own style of writing creatively. The results of the study suggest differences among all the nativized varieties of English. How these differences are manifested is discussed briefly below.

### *Hypothesis 1*

Our first hypothesis, that texts written by a traditionally oral culture would score closer to the scores for oral genres, was confirmed by the scores of the West African texts, whose scores indicate that their literary texts do display traditional characteristics of oral texts more than the British variety of English does. Also, West African texts score closest to the scores of typical oral texts, such as face-to-face and telephone conversations on all of the dimensions. In contrast to the West African texts, Mexican American and Indian texts score closer to the British variety of English, suggesting that their texts are more formal than Anglo-American and West African texts are.

The reason that British and Indian texts' scores would be most similar to each other on nearly every dimension may be, as some scholars suggest, that Indian writers view the British standard as the ideal writing style and dialect. For example, Bhatia has found that Indian speakers have 'bilingual orthodoxy' where they adhere to typical characteristics of genres even more so than do monolingual writers (1992). It may be, therefore, that Indians do not use syntactic structures and organization as a means of showing their bilingual creativity. Of course, these texts differ in other ways.

It may also be that, because Indian writers are combining the characteristics of two literary traditions, they are merely showing typical characteristics of literary texts. Thus, they may be more a part of the bilingual writers who write in English merely because it is one of many languages to choose from. As this study suggests, it may be that differences between Indian and British writing differ in their use of literary devices and in their use of metaphor, but not in their use of syntactic constructions. These results are similar to those found in qualitative measures, suggesting that, at least in syntactic organization, Indian writers use similar structures to British writers.

In contrast, West African texts scored significantly differently from British texts' scores, and, in fact, their scores ranked closer to the Anglo-American texts' scores (a 'standard' variety) than to any other group. The reason West African texts' scores are similar to the Americans may simply be because West African writers tend to be more influenced by Anglo-American writers than by British ones (Balogun, 1991).

However, it is also possible that writing texts that contain typical characteristics of oral texts is one way that West African bilingual writers show their creativity, that West African writers attempt to write as distinctively differently from British writers as possible, 'fighting English words with English words.' As discussed above, more than any other writers, West African authors are noted for their ability to depict local languages through

English texts (Wanjala, 1988: 67; Balogun, 1991). Thus, these scores may indicate their use of several local dialects of English. Thus, the oral traditions upon which these varieties are based is found also in their creative written texts.

A final reason that they score differently from British texts may be because West African writers see the *function* of literature differently than writers in the other four varieties do. Many African writers see creative writing as a means of expressing a political opinion, or a way of inciting change or promoting unity in their countries (Thumboo, 1992; Balogun, 1991). Since West African writers view creative writing as having a persuasive function, this reason may explain why their writing contains many modals, a feature of persuasive speech. This use of persuasive speech may also indicate why they scored so much higher than any other variety on dimension 4. In any case, the results of this study confirm the studies that have been done examining West African English and literature. In addition, this study also helps in understanding how these stylistic differences are manifest and how these texts differ from texts written in other nativized varieties of English.

Finally, our predictions about texts written by Mexican American authors was incorrect. We assumed that they would also show typical characteristics of oral texts. Instead, Mexican American texts score, on the first two dimensions, closer to the scores of written texts, such as academic prose, than even the British variety did. Interestingly, Mexican American and Anglo-American texts never scored close to each other on any of the dimensions. In fact, Mexican American scores varied substantially from the other varieties. Possible reasons why their scores differ from the other varieties are given below.

Perhaps the reason that Mexican American scores may differ from the other varieties, especially the Anglo-American variety, may be because, as Dominguez (1983) hypothesizes about Mexican American English, a minority group may alter their language to distinguish themselves from the majority. The Mexican American variety is the only variety used in this study whose speakers represent a group that lives in a country where the majority of speakers use another English variety. Thus, Mexican American writers may purposely or subconsciously alter their writing styles so that their writing styles are completely different from Anglo-American styles. Their writing differs as a 'political statement' as well as a literary one.

Another reason why Mexican American texts score differently from the other varieties may be because of second language influence. Spanish writing is usually more formal and contains longer and more complex sentence structures than English does (McClure *et al.*, 1993; Montano-Harmon, 1991). However, this is interesting because many Mexican Americans do not have any formal training in Spanish reading and writing. Further research needs to be done that compares texts written in Spanish to Mexican American English texts. The results of such a study may indicate whether Mexican American writing is influenced more by Spanish than by English and may explain why their scores differ from the scores of the other varieties of English.

In any case, from this study it can be concluded that bilingual authors who choose to write creatively in English may do so for several reasons. For some, it is a political statement, a move away from tradition to embrace the West. For others, it is a way to combat Western thinking, to fight fire with fire, English words with English words. For many, English is merely the best language with which to write their experiences and their stories. For them, writing in English is as natural as writing in any other language and with it they display 'bilingual creativity.' We see these differences in the three varieties of

English discussed above – those that fight fire with fire, those that write in English as an option of many, and those that write in English to make a political statement.

### *Hypothesis 2*

Texts written in Anglo-American English differed greatly from our predictions. Perhaps the most interesting result of this study is the difference between the two 'standard' varieties. We hypothesized that both British and Anglo-American texts, because their authors come from a written tradition, would have scores closer to those of traditional written texts. The results of this study do not confirm that hypothesis because Anglo-American texts score closer to traditional oral texts than all other varieties of English in several of the mean dimension scores. Interestingly, these results do confirm Biber's (1987) earlier research, which indicates that American texts tend to be more informal than British texts do. This fact may explain why Anglo-American scores and British scores are so different.

Another reason why Anglo-American texts score so differently than British texts may be that the two varieties have had different literary traditions for many years. This separation may have caused Anglo-American writing and British writing to become distinctly different, so that their literary styles have changed significantly from each other.

A third possible reason that the texts score differently is that American writing is known for its attention to cultural diversity and for writing in English that is not always the standard dialect (Kahane, 1992). Therefore, the writing would be less formal and have more characteristics of oral communication. Certainly more research needs to be done before any definite conclusions or theories can be reached to explain the differences between Anglo-American and British varieties.

## CONCLUSION

The narrator in the poem 'American-American,' is a Mexican American who meets a Eurasian in a Singaporean pub. The narrator laments about being outside in the inner circle, a bilingual in a country dominated by monolinguals. Refusing the title 'American' she introduces herself as a 'Mexican American.' The 'Eurasian' disagrees that the narrator is any different from any other American: 'You're an American-American' she insists.

'But I'm also Mexican.'

*So? I'm half Chinese and half Portuguese.*

'But I speak Spanish.'

*See? Only Americans make a big deal out of speaking more than one language, she said.*

*I speak English, Malay and Cantonese.*

(Orlando Ramirez, in Tatum, 1993: 15)

'You're American-American.' The events in this poem reveal perspectives and attitudes toward language in both the inner and outer circle of English use. To the American, being bilingual or trilingual seems exotic; but to the Malaysian, it is the norm. To say that the two characters in this poem are both 'bilingual' or both 'second language speakers of English' would be to lose important distinctions between both their attitudes toward and use of English. In this poem the medium is the same – both speak English – but the languages they speak and their attitudes towards them are very different. These differences

in the use of English can be found not only in attitudes, but also in the way that they use English. Some of these differences are revealed in the results of this study – that each culture displays ‘bilingual creativity’ using different syntactic and rhetorical styles.

Three conclusions can be reached about contrastive rhetoric and research on bilingual creativity. First, computational methods of analyzing texts both confirm former research comparing differences between texts written in different varieties of English and also shed new light on differences that exist between different varieties. Obviously, these texts differ from each other on many other dimensions than just the five proposed by Biber – they differ in terms of topic, topic presentation, cohesiveness and other literary and rhetorical devices. However, this study suggests one of the reasons that bilingual texts differ from monolingual texts – because of the cultural and oral traditions that are part of the other languages that they speak.

Second, more interest needs to be paid to comparing nativized varieties to each other, not with the goal of understanding how they differ from monolingual texts, but of understanding what it means to be a West African or Indian creative writer of English. This involves examining a large variety of texts within the variety as well as a large variety of authors.

Third, methodologies and typologies that set monolingual writing as the norm for English writing need to be revised to include ‘multi-norms’ (Braj Kachru, 1987) of creativity and style, and ‘multi-norms’ of bilingual creativity. If the two established varieties of English – American and British – have differences between them, then we cannot assume that there is some sort of ‘standard’ English writing style (Braj Kachru, 1995; Yamuna Kachru, 1995; 1996), even in the traditional literary canon. Is the narrator of the above poem ‘American American’ or ‘Mexican American’? The answer is that she is probably both, a combination of two cultures, just as her writing is, a combination that reveals the uniqueness of ‘bilingual creativity.’

## NOTES

1. The anthologies from which the texts were taken are listed in the references section. A complete list of the short stories used in this study can be obtained by contacting the first author.

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