A Textual Examination for the Sake of Artificial Intelligence Pronunciation through Sound Processing Technology

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Abstract. The relationship between AI language processing and human language analysis should not be delayed as AI application is in its blossom. The analysis of the cultural and social background in which the language is produced will better the application of natural language processing in AI. The study of interpersonal function, individuation and multimodality in Black English in the novel “The Color Purple” might provide implications for the relationship between language and society in terms of AI language processing and discourse analysis.

Keywords: AI, natural language processing, interpersonal function, individuation, multimodality, The Color Purple.

1. Introduction
The application of AI has made it possible for different languages, regions and cultures to communicate. AI-used communication is regulating the communication that humans desire. However, the academic exploration on the relationship between artificial intelligence and human discourse and on AI application to discourse research has been delayed. To better look into man-to-man interaction, man-to-machine communication, and how they are essential in the modern world’s kaleidoscope, it is necessary and important to value the particularity, diversity and competitiveness among different civilizations and languages.

To study AI, language itself should be carefully analyzed. The study of natural language should include the identification of different languages, the understanding of textual meanings, the implication speakers intend to convey, etc. According to Zhu [1], natural language understanding and communication should be taken into account, which enables machines to understand human languages so as to communicate with humans. In Gardner’s [2] classification of human intelligence, language intelligence is also listed in his multiple intelligences theory which enables AI to imitate and extend human intelligence. However, there are lack of studies on the cultures and contexts in which languages are used, the relevant background knowledge with which languages are to be understood, which leads to the insufficiency of high-quality natural language applied by AI.[3]

The article is to analyze the natural languages of characters in the Black English novel “The Color Purple” via discourse analysis, gaining in-depth knowledge about the language and identify its association with society, culture and perception of the people, so as to unlock the horizon of comprehension of this type of communication in communication studies. The textual analysis in this study, should include (a) what the text says, (b) the writer/speaker’s intention to say it, (c) the
writer/speaker’s input to make the text comprehensive, (d) whatever the writer/speaker mentions, and (e) the structure and cohesion schemes used by the writer/speaker.

Black English, as a specific dialect or language formed in a hierarchical society, has marked its importance in the language system and obtained more and more attention of linguists and English speakers and learners. According to Halliday [4], the Black English has a characteristic functional orientation. Both the textual orientation and interpersonal orientation produce overlexicalization. In the first case, languages take the form of verbal competition and display, and the second, the words that are denotatively synonymous are clearly distinguished by their attitudinal components.

The Color Purple is Alice Walker’s most noted novel with a collecting of 49 letters in which Celie emerges from the brutal domination and abuse of men to a liberated, autonomous self. Among these letters, 23 are from Nettie, her younger sister, 14 from her to Nettie, which came back unopened, and one from Shug Avery, the blues singer who is the moral center of the novel. Most of these letters are a dramatic monologue to a white, patriarchal God, whom Celie for a long time believes to be the savior but later proved to be the nihility restricting her and her fellow black women in their quest for freedom, literacy, and wholeness. Through this novel, Walker, or rather, the female characters created have showed the subdued life and imprisoned mind of women in Southern American and their later awakening of the identity and right of themselves. These letters also reveal much information about the African American’s language, the Black English as a social symbol for this specific speech community.

2. Individuation and the Declaration of Identity—Interpersonal Function of Language

Language can function as an individuation tool through which the user achieves certain purpose by employing user-specific semiotic resources. During the individuation process, language users cannot only show their respectively unique identity through their unique ways of coding, but also negotiate their identities with each other and affiliate themselves into personality types, master identities, and finally into the system. To understand an original language, it is necessary to interpret it in certain cultural contexts or social situation. The language for some African American is a way of surviving and living. As is suggested by Malinowski [5], the language is acquired in daily communication and production for phatic communion, pragmatic function and magic function. At the same time, the languages are used for interpersonal function, or for establishing the status and power of the individuals or communities.

In the novel The Color Purple, the characters all have applied language to establish and keep their social role and status. Celie, the protagonist of the novel, at first resigned to the patriarchal power of Mr._ and thought the humbleness is determined and definite. However, after illuminated by what happened to Shug and Sofia, she gradually knows she should struggle for her liberty and identity rather be under the oppression of the men, especially that of Mr._. Therefore, the change in Celie’s use of language can help declare an identity and status as well as show the transition of mental and psychological state. At the beginning, Celie just kept silent when her stepfather raped her, and she held the view that “Honor father and mother no matter what” and to the suffering in this world, for “This life soon be over…Heaven last for all ways” [6]. Through language, Celie just set a “fair and proper” social role for herself. The letters she wrote to her younger sister are in Black English, a social dialect and sometimes seen as an antilanguage to the standard language. As can be seen in the examples:

“What with being shock, crying and blowing my nose, and trying to puzzle out words us don’t know, it took a long time to read just the first two or three letters.”

“You somebody to Nettie, she say. And she be pissed if you change on her while she on her way home.”

“Us hear Grady and Mr._ in the kitchen. Dishes rattling, safe door open and shut.”

At times, one speaks a certain language to obtain the acknowledgement of a community because they would like to assimilate the culture for purpose. Nettie, for instance, the sister of Celie writes letters in Standard English (SE). Nettie is able to use standard white English thanks to her early education in schools and later influence from preacher Samuel and his wife Corrine, who are the loyal upholders of
church and orthodox of Christian. She prefers Standard English to Black English perhaps in the purpose of the showing her successful assimilation in the white people’ society. For instance,

“I hadn’t realized I was so ignorant, Celie. The little I knew about my own self wouldn’t have filled a thimble!”

“Over the pulpit there is a saying: Ethiopia Shall Stretch forth Her Hands to God. Think what it means that Ethiopia is Africa! All the Ethiopians in the bible were colored.

Even the way Nettie calls Mr._ is different from that of Celie. For example,

“I’m sure Albert is still the only one to take mail out of the box.”

“Albert is not going to let you have my letters and so what use is there in writing them.”

Celiе hates the man who has kept humiliating her and she is reluctant even to call the name of her “husband”. Or the reason is that she thought the name “Albert” is the formal name and she might show disrespect if she calls the name directly. But Nettie has little relationship with Mr._ and it is normal for her to call the man by his name.

The Black English has its specific grammar and phonological features, and is used in certain contexts for certain meanings. In Standard English, marking of verb tense is obligatory and marking of verb aspect is optional. While it is the contrary case in Black English where marking of tense is optional, marking of aspect is obligatory. In the tense system of Black English, action in the past may be represented by the base form of the verb. In SE every verb in a sentence or clause should be marked as either present or past. However, in Black English, the sentence above can be either present or past tense, the non-occurrence of tense marking is not categorical, the number of verbs marked is free in the sequence, only one or some of the verbs need be marked. Or the tense of the past events may be marked by non-verb lexical items.

The blacks are struggling everywhere their identity and searching for the spirit of rebellion against an identity defined by outsiders. This is an adequate forewarning to non-blacks making efforts to define and institutionalize a black language. Because the small number of bilingual and multilingual people belong mainly to narrow local elites, the mass of the population is discrimination against since currently the spread of information tends to take place in the terms and the idioms of the linguistically powerful. The bias to a language or dialect is to impair honoring differences in cultural identity. They are therefore in conflict with the aspiration of movements where there is desire to retain and express national, regional or social identities.

Therefore, it can be seen that interpersonal function could not only express the speaker position, identity, motivation, attitude, but also reflect the evaluation of things, judgment and inference.

3. Establishing Power and Status through Language

Language can also be used to establish the power and status of an individual or a community. Language is part of culture and part of the ideology of a certain society. The control of the ideology is the establishment of a belief and faith for a nation, and the influence of the language its nations use should be a tool for controlling their thoughts. Then, to control one’s thought, it is necessary to control one’s use of language. In some societies, slangs and taboos are usually concerned with female words rather than male words in the purpose of establishing the patriarchal privilege of men [7].

In The Color Purple, the men have tried execute the privilege that they have lost and been deprived by the white people. They themselves are the victim of oppression and inequality, but in order to acquire the sense of power and status, they oppress the Black women instead to meet their satisfaction. When Mr._ found that his son Harpo failed to subdue his wife Sofia and tame her as he will, he made Harpo believe the very privilege of men by persuade him through a conversation and after the chat, Harpo really tried to treat his wife with violence, as in the examples below:

“You ever hit her?” Mr._ ast. Harpo look down at his hands. Naw sub, he say low, embarrass.

“Well how you spect to make her mind? Wives is like children. You have to let 'em know who got the upper hand. Nothing can do that better than a good sound beating.”

“You a lowdown dog is what's wrong, I say. It's time to leave you and enter into the Creation. And your dead body just the welcome mat I need.”
“Well”, say Grady, trying to bring light. “A woman can’t git a man if peoples talk.”

He laugh. “Who you think you is? he say. You can’t curse nobody. Look at you. You black, you pore, you ugly, you a woman. Goddam”, he say, “you nothing at all.”

“Until you do right by me”, I say, “everything you even dream about will fail. I give it to him straight, just like it come to me.”

Generally, the oppression the women in The Color Purple suffer is from the anachronistic and chauvinistic conventions in the Black family and the black church [8]. Walker has attributed Celie’s abject shame and passivity to the dominance of patriarchy, hypocrisy, and otherworldliness in the black church and family. At first it is Celie’s stepfather who has raped her, and then Mr._(Albert) ravages her both mentally and physically. Harpo, the son of Albert initially tends to execute the same Chauvinistic right as his father, is repelled by his strong wife Sofia. When Celie is intimidated by the absolute privilege of Mr._, which she thinks to be right and endowed by God, it is Sofia’ temerity and Shug’s encouragement that enlightens her and lead her to know what she really needs. She unremittingly and severely attacks on male hegemony, especially on the violent abuse of black women by black men. The novel has offered a revolutionary leap forward into a new social order based on sexual egalitarianism.

Another heroine in the novel, the spiritual supervisor for Celie, Shug, is also an audacious but righteous woman. She loves both Albert, the father of her three children, and Celie, who fantasizes about her, honestly and completely love Shug. Just as she said “I was so mean, and so wild, Lord. I used to go round saying, I don’t care who he married to, I’m gonna fuck him…and I did, too. Us fuck so much in the open us give fucking a bad name”. For Shug, she would rather find love from male of Albert and the sister love, or lesbian love from Celie. It is in this song that the lesbian love has culminated. She just lives with boldness and style in the face of adversity, absurdity, and conventional morality.

The sexual egalitarianism is broken by the male hegemony in Black families. As the Blacks have already suffered the oppression from the people of different race, the males are questing for a sense of satisfaction by oppressing, in turn, their fellow black women. Maybe through the kind of brutality can they regain the sense of belonging-to and identity as human beings. Adam, Celie’s son, at first snored at the facial scarification initiation rite of Olinka females later endures his wife Tashi because of the love for her. However, Mr._ just satisfactorily conduct his right of treating wives as lifeless possessions, and Harpo, whose wish is to copy the model of his father- treating wives as things are resisted and damped by his persistent wife, Sofia.

Celie takes care of Shug devotedly and wins her attention, her concern and later even respect. With Celie’s self-consciousness awakened, Shug even brings her the new ideas about sex. Yet any other man never and cannot do that for her. She is a victim of rape first by her stepfather and then by Mr._. Her sterility caused by the trauma of sexual abuse is a symbol of her awakening of sex. And in fact, Celie is sexually alive. When Celie washes Shug's sick but alluring body for the first time, Celie’s trembling hands and short breath tell us her response to Shug's sexual attraction [9], as in the examples:

I got the full sight of Shug Avery long black body with it black plum nipples, look like her mouth, I thought I had fumed into a man.

I wash her body, it feel like from praying. My hands tremble and my breath short.

"....And she dress to kill. She got on a red wool dress and chestful of black beads."

“She got the nottiest, shortest, kinkiest hair I ever saw, and I loves every stread of it.”

Celic cannot resist Shug’s attraction, and she is almost out of control seen from her trembling hands. She cannot feel this sense of excitement and tension when she is with her stepfather and her husband. In her stepfather's and husband’s eyes, Celie is not a “fresh” girl, while for Shug, Celie is still a “virgin”. Shug is such a goddess that Celie’s physical desire has been aroused to the spiritual level. Celie is encouraged by Shug to look into the mirror to appreciate her body for the first time. The affirmation and praise from Shug bring Celie’s confidence back. At the same time, Celie’s self has been awakened gradually and she finds the sense of being a woman again and knows how to love her body which reflects Alice Walker’s womanism.
Dialect difference should not be taken for language disorders since every language or dialect deserves an existence and should be recognized as a particular way to express the culture and social value specific to the people speaking it. It is not appropriate to take for granted that a certain language is definitely superior to other languages. All languages are equal as soon as they well meet people’s communicative purposes. As suggested by Orlando J. Taylor, there is a need to accept a wide range of speech behavior instead of trying to change people’s speech habits. Therefore, it should be avoided to take dialect differences as language disorders, and nonstandard forms as speech defects.

If the civilized society of human beings is democratic, there should not be a denial of any significant differences among its people. Whatever one’s private thoughts may be, it is necessary always to act as if everyone alike, and nor do they need to speak the same language to express their values and attitudes. The view or behavior of linguistic hierarchy is hypocritical. If people of two speech communities cannot communicate with each other easily and comfortably, but must forever guard against each other because they hold different social value or religious beliefs, the political and social bias may result in linguistic imbalance with one “standard language” and the other “nonstandard dialect”, or rather a stratified “high” and “low” language, the two people are likely to talk as little as possible. People in the same society with different values, under the pressure and prompt, just like blacks or some other ethnic groups, or even the people using various kinds of antilanguages, may behave just like they are created out of the same mold, the peculiarity or advantage is thought to be undemocratic and denied. These people are prone to be called “undemocratic” whenever they do anything out of the ordinary –more or less of something than others do, including the language they speak. If they want acceptance, the persons with an uncommon attribute, like the persons with a common attribute, often feel obliged to take on protective disguise, to act as if he or she were just like everybody else. They behave and speak like the majority of the prestigious society just like they breathe the same air as others do. One denies difference, the other minimizes it. And both believe as they conform to the false standards that they act in the name of democracy.

Standard English is in many instances a matter of degree. It stands out because of the relative frequency and consistency of the use of certain forms and in certain circumstances. Their prominence and prestige in the society is not judged by the absence or presence of certain terms. Their prominence and prestige in the society is not judged by the absence or presence of certain terms.

Even though there indeed are differences between Black English and white English, they cannot explain everything about the origin and development of Black English. In the US, it is ethnic differences rather than social class differences that are more basic and more divisive. The point is to look at antilanguage and subcultural variety in the broader context of the social system beyond issues of ethnicity and social class. And the differences between Black English and white English cannot accounted only by the phonological and lexicogrammatically differences. Nor do the differences between social classes.

4. Music as Multimodalities to Mark Social Roles besides Language

Multimodality is to express the speakers’ attitudes on the probability and necessity of events and things by using multiple modal verbs such as might, could, should and so forth. Then it goes beyond the semantic system to mean the channel of communication and medium, which encompasses many semiotic systems such as language, technique, image, color, music, sound etc. Thus, “modality” is polysemous because it might make reference either to the grammatical system of existential stances or simply to the presence or use of modes of communication [10].

The 1920s saw the rise of a sophisticated black community centered in New York City in Harlem, which marked the cultural flourish of Harlem Renaissance. Blacks had brought a lively, powerful music-jazz with them as they moved to northern cities. Magazines and newspapers dedicated to black writing sprang up. Blacks find their specific voice in music, literature, dance, art as well as language. The rapid
machine-like rhythms, the use of slang and argot, mixed in the long- winded lyrics and high- squeezed narration, gives the camera lens to the life of underclass and their oppressed feelings.

Music as one of the forms of multimodality is one way to express meaning like the function of words. Under certain contexts, the non-language factors take the leading positions and convey more meanings. Because of the intimidation and oppression of Mr., Celie has developed a homogeneous love Shug who, in turn, Due to the repression and domination from the men around Celie, she has gradually and unconsciously developed a homosexual love to Celie, too. For them, this lesbianism is the rite of passage to selfhood, sisterhood and brotherhood. This socially forbidden love inspires Shug to create a “low, down dirty” blues that she calls Miss Celie’s song, which, of course, is Walker’s text, and culmination in their lesbian affair. For instance:

Then I hear my name.
Shug saying Celie. Miss Celie. And I look up where she at.
She say my name again. She say this song I'm about to sing is call Miss Celie's song.
Cause she scratched it out of my head when I was sick.
First she hum it a little, like she do at home. Then she sing the words.

Through the music and song, Shug showed her sympathy and love for Celie, and Celie for the time, felt the love and respect from others.

Therefore, multimodality or multimodal discourse analysis provides the tools and techniques for analyzing texts that contain more than one modality. Especially in the modern age when modern technology is in full play, there emerges many new media that consist of not only language or linguistic text but also visual images such as photos, cartoons, maps, pictures and many others.

5. Conclusion
Language is hatched and brooded in a certain society, it is the form of realization of patterns of social meaning, a way a social group mark their existence and importance. The whole linguistic system is value-charged, since language itself is part of culture. As language is regarded as a mirror of society, through which we can understand the social activities and culture of a certain society better, the function of it studied in certain social contexts is indispensable. With better understanding of relationship between human language and AI language, we can help AI reconstruct the human discourse communication system, improve the strategies and principles of human intelligence discourse practice for AI application. We will expand the scope of discourse research, and help human beings better coexist with intelligence machines in the future.

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