Afro-American Women Discrimination on *Hidden Figures* - A Critical Discourse Analysis

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**ABSTRACT**

This study investigates the discrimination against three Afro-American women in *Hidden Figures*. Critical Discourse Analysis proposed by Fairclough (2012) was used in this study to deconstruct the discrimination and provide solutions to tackle the problem. The CDA was supported by the analysis on language through Systemic Functional Grammar by Halliday (2004) and the analysis on body language by Jäger and Maier (2009). The result shows that the discrimination in the movie can be differentiated into discrimination based on the level and the cause. The discrimination based on the level includes the individual, institutional and structural discrimination. Based on the cause, discrimination based on race (racism) and discrimination based on gender (sexism) are illustrated in the movie. The racism is developed from racist ideology, while the sexism is caused by sexist ideology. Finally, the ideologies are represented through language and body language.

**Keywords:** Afro-American Women, Discrimination, Critical Discourse Analysis, Systemic Functional Grammar

**INTRODUCTION**

The past slavery becomes a part of U.S. history which still brings significant changes in U.S. social and political life nowadays. Its drawbacks particularly affect the two main parties involved, the white Americans and the Afro-Americans. The gender and racial backgrounds have caused Afro-American women to be the worst victims of the injustice in the past and the present time.

The discrimination against the Afro-American women is portrayed in *Hidden Figures* movie, a biographical drama movie produced by Theodore Melfi in 2016. The movie illustrates how three Afro-American women working at NASA, namely Katherine Johnson, Mary Jackson and Dorothy Vaughan were treated unfairly. They remained unseen despite great abilities and contributions they gave to NASA merely because they were Afro-American and they were women.

Due to the persistence of this injustice until now, this research decided to investigate the movie because the movie contains important elements that are significant for the analysis, such as semiotic elements in the form of visual images which can support the linguistic analysis. To guide the analysis, three research questions formulated in this study include: (1) What types of discrimination are experienced by Afro-American women in *Hidden Figures*?, (2) What ideologies are found behind the discrimination against Afro-American
women in the movie?, and (3) How do the semiotic elements represent the ideologies in the movie?

To answer the research questions, Critical Discourse analysis (CDA) is employed in this study. CDA as a branch of critical social analysis can deal with both the ‘material-semiotic’ aspect and social aspects. This is why CDA is often regarded a ‘trans-disciplinary’ analysis concerning the material, semiotic as well as the social aspects through dialogues across disciplines as sources of its theoretical and methodological development (Fairclough, 2012). CDA is able to explain social practices constructed in a particular society, to describe how it emerges and to provide solutions regarding the issues. One of the means used to achieve the goal of CDA above is using Systemic Functional Grammar (SFG) by Halliday (2004). Wodak and Meyer (2001) claim that functional linguistics is proven to be the most essential for textual analysis.

Some studies related to CDA and SFG have been conducted by some scholars before. First, the study on gender issue by Akogbeto and Koupossi (2015) entitled “Gender Issues in the Lion and the Jewel by Wole Soyinka: Linguistics-oriented Analysis from a Systemic Functional Grammar and Critical Discourse Analysis Perspective” combined the transitivity analysis and CDA to know the writer’s ideological position. The result of the study shows that Soyinka portrays the post-colonial life in Africa and his views on the patriarchal system in his ethnic group in the play. Nevertheless, this study does not clearly show how CDA reveals the power relation in the play. Second, the study carried out by Lessu (2017) entitled “The Ideologies of Anti-Authoritarianism and Social Movement in Anti-Flag’s Protest Song Lyrics; A Critical Discourse Analysis” scrutinized how the linguistic features employed in Anti-Flag’s protest song lyrics revealed the ideology and what main ideologies were conveyed in Anti-Flag’s protest song lyrics. The result of the study shows that Anti-Flag’s songs convey the anti-authoritarianism and the social movement ideologies realised in the use of verb processes, Modality, and pronouns.

Looking at the previous studies, this research attempted to study the discrimination against Afro-African women in the movie Hidden Figures by applying the combination of CDA and SFG analysis. This study differs from the previous studies because this study extends the language analysis to its multimodal aspects, such as, visual images and this extension is considered as a new trend in CDA (Tenorio, 2011). Besides that, three metafunctions in SFG were all applied, so that the deeper and thorough understanding of the text could be achieved. Thus, this CDA study is able to reveal the discrimination and ideologies represented through the semiotic elements in the movie. Therefore, before presenting the analysis, this paper reviews some related theories, namely the theory of discrimination, CDA and SFG.

**DISCRIMINATION**

Fershtman, Gneezy, and Verboven (2005: 371) define discrimination as “differential treatment of people depending on their group affiliation”. Bodanhausen and Richeson (2010) also describe discrimination as the condition when individuals are treated differently because of their belongings to certain groups. Thus, discrimination can be understood as the condition in which certain party consciously or unconsciously treats other parties differently due to some personal attributes separating them into different groups and aiming at limiting the rights of the minority parties.

Pincus (2000) classifies discrimination into individual, institutional and structural discrimination. Individual discrimination deals with the behavior of individuals as members of certain race or gender group
causing harmful effects on the members of another race/ gender group. For example, a White employer refuses to accept all Black job applicants.

Institutional discrimination refers to policies created by the dominant race/ gender institutions and the behavior of individuals controlling these institutions and carrying out policies resulting in harmful effects on marginalized groups. For example, Jim Crow segregation in the South resulted in segregation in all aspects of life between the Afro-American and the Whites.

Structural discrimination occurs when the policies created by the dominant race/ gender institutions and the behavior of individuals controlling these institutions and carrying out the policies have a neutral intention but cause harmful effects on the marginalized groups. For example, though the loan policy applied to all races, the Whites are more likely to get loans from banks than Afro-American and Hispanic. Discrimination is also rooted from different personal characteristics, such as race, gender, ethnic, class, etc. Discrimination based on race or racism is often defined as “a system of beliefs, policies, and practices designed to maintain White superiority” (Pincus, 2000:4). Lawrence and Keleher (2004) also use the term ‘White Supremacy’ to have the same idea as racism. ‘White Supremacy’ is a historical and institutional-based system of mistreatment and domination of colored people by the Whites in order to maintain and secure their prosperity, control and privilege. It can be understood that racism is a structure of beliefs, policies, and practices exercised by the Whites towards the race minorities to maintain their wealth, power and privilege.

Additionally, discrimination which occurs based on gender is often regarded as sexism. Glick and Fiske (1997) in Sarrasin, Gabriel and Gygax (2012) define sexism as overt antagonism towards women. In line with that definition, Frauenberger (2012) claims that sexism refers to a political term denoting unfair treatment and restriction towards women’s development in all social aspects and is fought by feminists. Thus, sexism can be understood as discrimination type which appears due to gender-based hatred resulting in the restriction of women’s development in various social aspects.

**Workplace Discrimination**

One of the most obvious and evasive cases of race and gender discrimination against Afro-American women can be seen in their professional career or known as workplace discrimination. Workplace discrimination can be defined as a situation when individuals in an institution organization perform unfair behaviors harming the capabilities of the groups or individuals working in the organization (Rospenda, Richman & Shannon, 2009). Beauchamp & Bowie (1993) in Fernandes and Alsaeed (2014) also state that workplace discrimination is an incessant situation, though it is forbidden. Thus, workplace discrimination can be summarized as discrimination type occurred in the workforce in the form of unfair treatments towards the dominated group inhibiting them to have the same access, opportunities, and rights with the dominant group.

**CRITICAL DISCOURSE ANALYSIS**

Critical Discourse analysis (CDA) was originally developed from Critical Linguistics (CL) in 1960s. It aims at revealing explicit and implicit forms of inequalities in social relationships. Similarly, Wodak and Meyer (2001) argue that CL and CDA focus on the analysis on hidden and apparent inequalities embedded in the language aiming at doing critical investigation on how they are reproduced and enacted in the language. It can be said that CDA is an analytical research aiming at both uncover-
ing inequalities and their mechanisms occurred in the society through the use of language and providing solutions to deal with the inequalities.

Some CDA methods are proposed by some scholars. One of them is Fairclough. The CDA method suggested by Fairclough (2012) is realised into four stages. The stages consist of identifying the social wrong, identifying the obstacles to deal with the social wrong, considering whether the social order ‘needs’ the social wrong and identifying possible ways to deal with the obstacles.

SYSTEMIC FUNCTIONAL GRAMMAR

Systemic Functional Grammar (SFG) established by Halliday concerns with how language functions. Halliday divides SFG into three main metafunctions, namely ideational, interpersonal and textual metafunctions.

Ideational metafunction deals with meaning about phenomena, goings on, and the circumstances surrounding these happenings and doings which are realised through Participants, Processes, and Circumstances (Gerot and Wignell, 1994). This is represented through 6 processes. The description of the processes according to Halliday (2004) and (Gerot and Wignell, 1994) is illustrated in the following table.

Table 1: Transitivity Processes

<table>
<thead>
<tr>
<th>No.</th>
<th>Transitivity</th>
<th>Processes</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Material</td>
<td>Doing and happening</td>
<td>VIVIAN MITCHELL: Much to my chagrin, we can’t fill the position outta the East Group. (HF3)</td>
</tr>
<tr>
<td>2</td>
<td>Relational</td>
<td>Showing the subject’s identity and possession</td>
<td>WHITE COP: You bein’ disrespectful? (HF1)</td>
</tr>
<tr>
<td>3</td>
<td>Mental</td>
<td>Results of the functioning of human senses</td>
<td>LEVI JACKSON: You would know that,… (HF19a)</td>
</tr>
<tr>
<td>4</td>
<td>Verbal</td>
<td>Saying the verbiage</td>
<td>VIVIAN MITCHELL: Don’t talk to Mr. Harrison,…(HF11a)</td>
</tr>
<tr>
<td>5</td>
<td>Existential</td>
<td>Showing the existence of something</td>
<td>SAM TURNER: There’s no protocol for women attending,(HF42)</td>
</tr>
<tr>
<td>6</td>
<td>Behavioral</td>
<td>Actions stimulated by one’s psychology and physiology</td>
<td>Not found in this study</td>
</tr>
</tbody>
</table>
Interpersonal metafunction concerns with the meaning created from the interaction among people. This is realised through Mood, Modality and Polarity. In addition, the textual metafunction shows how the text is organized in a meaningfully coherent unity through the use of cohesive devices, such as pronouns, ellipsis and conjunctions.

Some theories and some related studies have been described above. The theory of discrimination is used because discrimination is perceived as the social wrong in the movie. In relation to CDA, it becomes the source of social theory and context supporting the study, especially to answer the first research question. CDA is employed to uncover the inequalities in the movie and to provide solutions to address them. SFG is used as a part of CDA in this research to see how ideologies are embedded in the language.

**METHODOLOGY**

This research was a Critical Discourse Analysis study. To meet the ‘critical’ and ‘interdiscursive’ features of CDA, this study focused on the semiotic and social aspects of the research object. Therefore, this study used SFG by Halliday (2004) to analyze the linguistic features supported by an analysis on visual images by Jäger and Maier (2009) to support the CDA.

The object of this study was *Hidden Figures* movie. The data in this study consisted of two types. The first data were in the form of clauses consisting of 88 clauses and the second ones were the visual images cut from the movie including 8 data. Both data selected in this study were only those showing discrimination against Afro-American women. The clauses were not limited to the ones spoken by other characters towards the Afro-American women, but also clauses spoken by the Afro-American women themselves to recount the discrimination they experienced. The data in the form of clauses were written by Allison Schroeder and Theodore Melfi. It is available online at https://www.scribd.com/mobile/document/340938886/hidden-figures-screenplay-pdf-5183735384-pdf and it was downloaded by the researcher on May 21\textsuperscript{st}, 2017.

**DISCUSSION**

The analysis and discussion in this study are divided into two sections, namely the micro level and the macro level. The micro level deals with the language, visual image and discourse. The macro level concerns with the reasons for the movie production and its effects to the sociocultural aspect.

**Micro Level Analysis**

The micro level analysis in this study is revealed by following the CDA stages by Fairclough (2012). The description of each stage is explained as follows.

**Stage 1: Social Wrong in the Movie**

Based on the analysis, the social wrongs in the movie are various types of discrimination against Afro-American women. The complex discrimination in the movie comprises of various types of discrimination based on the level and the cause. In line with Pincus’ classification, the discrimination types based on the level can be summarized in the following table.

<table>
<thead>
<tr>
<th>Discrimination Types</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Discrimination</td>
<td>56</td>
<td>63.64%</td>
<td>SAM TURNER: This wasn’t emptied last</td>
</tr>
</tbody>
</table>
The table shows that the most frequent type of discrimination is individual discrimination (63.64%). It can be understood that individual discrimination is the basic source of other forms of discrimination based on the level. It happens when the behavior of a white employer at NASA harms the Afro-American women.

The institutional discrimination in *Hidden Figures* can be seen in the way the policies created in the country in general and the policies at NASA specifically give negative effects to Afro-American women. In addition, structural discrimination can be seen from the hiring requirement for NASA engineer.

According to the cause, the discrimination in the movie belongs to discrimination based on race and gender. The summary of the types of discrimination based on the cause can be illustrated in the table below.

<table>
<thead>
<tr>
<th>Discrimination Types</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racism (R)</td>
<td>72</td>
<td>81.82%</td>
<td>AL HARRISON: <em>Are you a spy, Katherine?</em> (HF24/3)</td>
</tr>
<tr>
<td>Sexism (S)</td>
<td>8</td>
<td>9.09%</td>
<td>LEVI JACKSON: <em>Kid needs to eat vegetables. You would know that, if you were home.</em> (HF19b/7)</td>
</tr>
<tr>
<td>RS (Racism &amp; Sexism)</td>
<td>8</td>
<td>9.09%</td>
<td>THE JUDGE: <em>What would warrant a colored woman attendin’ a white school?</em></td>
</tr>
</tbody>
</table>
From the table above it can be seen that the movie mostly portrays racism against Afro-American women (81.82%). Sexism can also be found in the movie, but it is far smaller than racism (9.09%). Similar number of data also conveys both racism and sexism. It proves that racism and sexism intertwine at certain point.

Not only does the finding show that racism is more persistent than sexism, it also reveals that Afro-American women do not perceive the urgency of both discrimination equally. According to some experts, due to terrible effects of slavery, Afro-American women tended to focus more on the eradication of racism rather than sexism. Walker argues that womanism as a type of women’s movement entrenched from racial and gender subjugation history claims that Afro-American women put more attention on racial oppression rather than gender one (Collins, 2001). Nevertheless, they do this because they have no choice but to follow the demand of Afro-American men supporting the patriarchal system.

Thus, Afro-American women in *Hidden Figures* experience race and gender discrimination at the same time. The race and gender discrimination in the movie proves that they are interrelated. “In some circumstances, women belonging to particular racial or ethnic groups may face dual or multiple forms of discrimination based on race, gender, religion, nationality, social class, caste, age, and/other status (United Nations, 2001: 10). It can be concluded that the interrelated relation between racism and sexism can strengthen the discrimination in the society and definitely worsen the sufferings of Afro-American women.

**Stage 2: Obstacles to Address the Social Wrong**

In this stage, the researcher had to focus on the dialectical relations between the social and semiotic aspects. The researcher combined the result of the analysis of the social aspect and the language as well as the visual images in the movie.

Based on the analysis, the researcher finds that the main obstacles to deal with the social wrongs are the rules that exist in the society including the segregated rules in America and the rules at NASA itself. The segregated rules contribute significantly to the persistence of inequalities in the society. First, the segregated rules increase the individual prejudice between the Whites and the Afro-Americans. This clause exemplifies the individual prejudice.

(1) VIVIAN MITCHELL: They’ve never had a colored in here before, Katherine. **Don’t embarrass me.** (HF12b)

The clause above shows the Whites’ prejudice towards Afro-American women. Based on transitivity analysis, the clause represents mental processes. The emotive category of mental process can be seen from the verb *embarrass*. The interpersonal analysis reveals that the clause is expressed in imperative Mood and negative polarity (*not*). The textual analysis finds the ellipsis *you* and the pronoun *me* (referring to Mitchell). Hence, the clause reveals the ill judgement of the Whites towards Afro-American women that they are incompetence and can cause some trouble. The Whites’ prejudice toward the Afro-American women cannot be separated from the
segregated rules. The segregated rules block the communication between the Whites and Afro-Americans which lead to the increase of disbelief, doubt, bias causing aggressivity and unrest in the society (Marshall in Karson, 2005). It is proven that the rules avoid both groups to communicate. Consequently, they do not really know about each other and they keep developing their own prejudice and stereotypes towards each other. This causes the individual prejudice becomes so persistent. Second, the segregated rules are adopted in the institutional rules. The existence of the segregated situation in the society inspires the stakeholders in the institutions which are mostly managed by the Whites to apply similar rules in the companies. The example is obviously seen in the rule about the hiring requirement as follows.

(2) VIVIAN MITCHELL: Everything’s temporary, Dorothy. (HF4)

The clause in (2) reveals that important positions at NASA are never available for the Afro-American women. The clause shows relational process indicated by the linking verb *is*. The word *temporary* is the attribute given to *everything* (referring to the position). Mitchell’s judgement towards the position is expressed in declarative Mood. While expressing this clause, Mitchell’s body language shows an arm crossed position indicating her negative attitude and disagreement towards Dorothy (Pease and Pease, 2004). Bluestone (1970) and Piore (1975) in Fernandes and Alsaeed (2014) mention that the positions are divided into primary and secondary positions. The former includes the jobs with high wages, good working atmosphere and better opportunities to advance, while the latter involves the jobs with low wages, poor working atmosphere and limited opportunity to advance. Thus, the Whites believe Afro-American women only deserve secondary positions at NASA.

Stage 3: Why the Social Order Needs Social Wrong

This section tries to consider whether the social order needs the social wrong and to discover the ideologies underlying the social wrongs. Regarding the social wrong, the dominant parties, the Whites and the Afro-American men, need to discriminate Afro-American women because they want to maintain their power. This is enacted through the mechanism of racism and sexism.

The racism is caused by racist ideology constructing the term ‘race’ which is a social construction as a natural fact. Likewise, the sexism is resulted from sexist ideology. Sexism is often linked to the notion of patriarchy referring to men’s control over women. Men discriminate women to maintain their power and privilege in the society.

Sexism in the U.S. which is rooted from the patriarchal system cannot be separated from the history of slavery which later developed racism. Thus, racism is closely linked to the development of sexism. Additionally, the operation of discrimination also exposes that the Afro-American women are the worst victims of this injustice. They experience double suffering from racism and sexism.

Stage 4: Solutions to Tackle the Problem

The solutions proposed in this study are derived from the movie, the theories and the researcher herself. The movie gives implicit solutions to deal with the discrimination. Some of them are the Afro-American women should fight the discrimination by empowering themselves, the Afro-American men should support the development of Afro-American women and the white director can act as a prominent agent of change who can use his authority to promote justice.
Additionally, some theories proposed also recommend some solutions to deal with the problem. First, Fernandes and Alsaeed (2014) propose some ways to deal with the discrimination in the workplace, namely promoting and strengthening the affirmative action; adopting procedures to reduce workplace discrimination and conducting studies on the development of procedures to prevent discrimination.

Second, Catalyst (2004) also suggests some possible solutions which managers at the companies can do to tackle the discrimination. First, managers and their staff should be aware of some stereotypes towards Afro-American women in the company and should challenge those stereotypes. Second, managers should allow their white employees to build a rapport with Afro-American women to understand each other’s values, interests and gradually eliminate the stereotypes between each other.

Finally, the researcher also proposes some solutions to deal with the problem. First of all, women especially the Afro-American women should empower themselves by participating more actively in education, economics, society and other fields. Second, Men can also participate by eliminating some negative stereotypes towards women and allowing them to have more opportunities to develop themselves. Finally, the researcher also emphasizes that integration in the society should be pursued. All parties should be more open and have positive attitudes towards diversity. The government can also contribute by ensuring that the affirmative actions can function well and introducing topics on diversity in the curriculum, so people can raise their awareness and tolerance.

**Macro Level Analysis**

The analysis on macro level deals with the reason of the movie production and the effects of the movie as a text to the sociocultural aspect. Seeing from the time, the movie was produced in 2016 when the U.S. presidential election was carrying out. It involved two main candidates, Donald Trump from Republican Party and Hillary Clinton from Democrat party. Trump with his sexist and racist attitudes especially created divisive atmosphere in the U.S. during the election.

The director and the screenplay writer of Hidden Figures, Theodore Melfie and Allison Schroeder mentioned that the movie had an important mission to change the U.S. condition at that time. Melfie states the movie uniqueness is on its ability to portray everyday discrimination still happening nowadays and to remind people that in the past people from various background could work together and reach great success (Ahern, 2017; Kilkenny, 2017). Similarly, Schroeder believed that the movie was essential at that time to encourage people to cooperate in reaching common goals despite the diversity. She also hopes that the movie can inspire people to support each other’s career advancement.

Thus, the movie was intended to bring justice to the everyday discrimination which still occurs against Afro-American women in the U.S. A report by Institute for Women’s Policy Research (IWPR) written by DuMontier, Childers and Milli (2017) reveals that Afro-American women in the U.S still suffer from discrimination in wage gap, unemployment, and occupational segregation. According to IWPR’s analysis of 2004-2014 American Community Survey microdata, during 2004-2014 the gender-based wage gap between Afro-American women and Afro-American men working full-time, year round improved by 1.9%. In 2015 the unemployment rate for Afro-American women was higher than the rate for women from other ethnic groups and the rate for men from all major racial groups except for Afro-American
men (8.9% for Afro-American women compared to 10.3% for Afro-American men). Finally, Afro–American women are concentrated on certain jobs offering poor job quality and low salary. Thus, the movie is expected to be able to eradicate this condition.

The movie is also proven to bring positive effects to its viewers. In the U.S. itself, besides the positive reviews that the viewers gave after watching it, some institutions created some inspiring programs. First, Erbland (2017) states that the movie inspires the U.S. State Department to create a funded educational exchange program for women and girls interested in Science Technology Engineering and Math (STEM). Second, the movie is selected by the Journeys in Film, a program using movies for teaching, and is included in the curriculum of the West Virginia Department of Education. Through this program, students can learn the issues emerging around the world including social issues like diversity (West Virginia Department of Education, 2017).

CONCLUSION

The movie Hidden Figures delineates a complex phenomenon of discrimination. The CDA is able to reveal the discrimination in the movie from its micro and macro level. From its micro level, the movie shows discrimination based on level and cause. Discrimination based on the level illustrates the operation of workplace discrimination which was developed from individual discrimination. Based on the cause, racism and sexism can be found. Their interrelated relation causes double suffering for the oppressed. The discrimination is underlain by racist and sexist ideologies.

Those ideologies are represented in language and body language. The analysis on SFG find 5 processes manipulated in the movie, namely material, relational, mental verbal and existential processes. The interpersonal metafunction reveals Whites’ negative judgement against Afro-American women through Mood and negative Modality and Polarity to show their lack, obligation and limited opportunities. The textual metafunction shows that the Whites use pronouns they and we to conceal themselves as the responsible Actors of the injustice and the ellipsis to exclude the Afro-American women. In addition, some body languages, such as arm-crossed position and finger pointing are posed by the Whites to show their negative attitudes towards Afro-American women.

From its macro level, the movie as a text was produced to pacify the divisive atmosphere in the U.S. during the 2016 presidential election and to eradicate everyday discrimination. Thus, the movie has a mission to bring justice for the oppressed group and pursue equality. The great contribution of the movie can be seen from some programs created in the U.S. supporting women empowerment after the movie release.

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theodore-melfi-chose-to-make-hidden-figures-over-spider-man


