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Artist's Statement

Photography has allowed me to both live in and capture the present moment. As a person who spent most of her childhood living in a warzone in Syria, searching for the bright side in every situation was the only way of survival. I then turned to abstract photography as a form of interpretive art, so that others could see the world from my perspective. This piece, which captures the vibrant colors of the inner portion of what seemed to be a regular cup from the outside, aims to show that every person has a different, complex life story and that there is, in fact, light at the end of the tunnel. My hope is to inspire others to live a meaningful life by embracing the process of surmounting obstacles as a token of persistence and by leading their life with a positive mindset.

Karnie Dishoyan
CLA 2023

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Foreword

The Drew Review, Drew University's annual double-blind undergraduate research journal of the College of Liberal Arts (CLA), commemorates talented students and their impressive authorship of the previous academic year through faculty nomination and subsequent publication.

As a double-blind, peer-reviewed journal, all submissions were submitted without any identifiable information, such as the student's or professor's names. Papers are either rejected or sent back to the author with recommended edits, and this process may occur several times before publication. This year, we received a total of 22 submissions and have published only seven, thus emphasizing the efforts and ability of these authors.

Those interested in submitting their work in the future will require a faculty nomination, which must include the author's name, paper title, and a brief rationale for nomination. All images will be published in black and white, and it is the author's responsibility to ensure that the images are permissible for reproduction under copyright law.

We are very grateful for our faculty advisors Dr. Jens Lloyd of the English Department, and Dr. Kimberly Choquette of the Chemistry Department. Their help and support is instrumental to the success of *The Drew Review*.

Editorial Board

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Pervasive Poverty in Central Appalachia
Johannah Bay

Abstract

This paper will look at the initial goals of the 1964 War on Poverty and how they failed to meet the needs of central Appalachia. In tandem, it will look at more recent efforts to address this problem, which has seen only bare improvement. Particular focus will be given to a factor that sets central Appalachia apart from other parts of Appalachia, as well as other poor regions of the country: its role in the production of natural resources like coal and outsiders' ongoing ability to extract wealth from the region. Additionally, this analysis will consider the unique racial makeup of poverty and of white poverty in rural central Appalachia and how this often clashes with nationwide assumptions regarding poverty and self-determination. Ultimately, this paper will argue that it is not an accident that Appalachia has been economically and developmentally left behind. Instead, it has been the result of undermining welfare programs, predatory capitalism and a misallocation of resources, and the general belief that, in central Appalachia, poverty is simply the culture.

Key Words: Appalachia, Poverty, War on Poverty, Class, History, Coal

<u>Introduction</u>

The entirety of Appalachia covers over 200,000 square miles of the eastern United States, encompassing land all the way from New York to central Alabama. Appalachia has rolling mountains, much older and more weathered than the infantile ranges in the west. Appalachia is the smell of pines and wet earth. It is the soft, muffled sounds of mountain laurel tunnels and icy waterfalls carving through stone. It is a place of music, storytelling, and tradition. And yet, tucked between the pines and waterfalls is a malicious (and maliciously misunderstood) plague – the plague of poverty, which has haunted Appalachia for decades. In particular, the conditions of central Appalachia draw the nation's focus because this region displays Appalachian poverty at its most extreme. People from outside the region often wonder about the residents here. Do these "yesterday people" simply resign themselves to their fates? Are they just waiting to be saved? Musings like these have inflamed both pity and spite for the region for decades.

In 1966, Vice President Hubert Humphrey addressed the problem he called a 'paradox in the midst of plenty.' In a piece published in *Law and Contemporary Problems,* he praises the United States for having both the capacity and desire to wage a war on American poverty. In this statement, he emphasizes that "32,000,000 of our citizens live without adequate

education, housing, and medical care" (Humphrey, 6). Thus, the Government embarked on an initiative coined "the war on poverty." While noble in its intentions, these initiatives have failed millions of Americans, especially in the central and southern Appalachian regions. In many ways, the war on poverty has become a war on poor, rural Americans, rather than a war to fight for their interests. This paper will examine how the war on poverty began and the ways in which it quickly began to unravel. Further, it will explain the various ways in which poverty has been sustained for the purpose of long-term exploitation of labor and resources in the central Appalachian region. There are several theories as to why the region has lagged socially and economically behind the rest of the country. This essay will lay out how different forces have contributed significantly to the ongoing repression of the region, as well as some of the theories that have resulted.

Central Appalachia is unlike other parts of the country, even places like the rural Midwest that are commonly associated with it. According to the Appalachian Regional Commission (ARC), a broad definition of "Central Appalachia" usually refers to the region including Virginia, West Virginia, eastern Tennessee and Kentucky, western North Carolina, and

southern Ohio.[1] Because of resource availability and regional isolation, the nature of poverty in this region is quite distinct from the traits of poverty in urban areas as well as other rural places. This is most evident in that there is a particular prevalence of white poverty and the fact that, rather than neighborhood variation, poverty tends to plague entire towns. Poverty is not only observably different today but also has a unique history, stemming largely from well-intentioned initiatives of President Lyndon B. Johnson's administration, begun in 1964 and maintained for nearly a decade. Although elements of the era eventually ended, many organizations and programs lingered in central Appalachia. Unfortunately, they failed to improve the prospects for the people living there. According to data collected in 2022 by the ARC, in the last ten years, a majority of Appalachian counties experienced a poverty rate greater than 100% the national average. In eastern Kentucky and nearby parts of bordering states, the rate of most counties is between 150% and 280.8% of the national average.

It is clear that, in the long run, these initiatives failed to bring Appalachia in line with the rest of the

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[1] Some use a more narrow classification of Central Appalachia, eliminating the northern and southernmost regions of this list. However, for the purpose of this paper, it is worth considering this larger area.

country. In many cases, these programs did more harm than good. It was these initial failings that inspired updated initiatives down the road, but even new measures failed to have much positive impact on the area. In the end, Appalachia is not only a victim of systemic poverty but also of a resulting alienation of the region by the rest of the country.

How Do We Understand Poverty?

Poverty data is collected by the Census Bureau. Following current Office of Management and Budget directives, the Census Bureau "uses a set of money income thresholds that vary by family size and composition to determine who is in poverty"[2] ("How the Census Bureau Measures Poverty"). If the income in the family is less than this threshold, every member of that family unit is considered to be in poverty. Over time, the common understanding of poverty, and of stereotypes associated with it, has changed. Oftentimes, popular assumptions do not match the data. In the 1960s, when the war on poverty began, the perception of poverty was

[2] These factors include but are not limited to: earnings, Social Security, workers' and unemployment compensation, dividends, trusts, child support, and educational support. Not included are capital gains, noncash benefits (such as food stamps), and tax credits.

that it mostly occurs in white, rural, southern communities. Moving into the 1970s and 1980s, however, the perception of poverty began to change. Instead of rural and white, poverty became a plight associated with minority, inner-city populations (Hill). This was in part because poverty in rural communities did decline. However, it did not decline nearly as much as people often assume. Thus, the ongoing struggles of rural central Appalachia lost their urgency and were neglected in evolving conversations about addressing poverty.

In addition to where poverty is seen in the country, the understanding of how poverty is structured within communities has also been changing. Poverty in America's rural areas has been a persistent problem, but more focus is often given to poverty in urban metro areas. For many decades, poverty was looked at by comparing the incomes, wealth, and needs of individual neighborhoods within cities. When extreme poverty pushes up against affluence in a single metropolitan area, the challenges of poor residents are more apparent. Many rural communities, especially in Appalachia, tend to be quite isolated from each other. As the above data analysis approach suggests, this means that poverty is being compared within communities, not between them. This inhibits an understanding of why an entire region of the country seems to lag behind the rest of the nation.

The social and political emphasis on urban poverty, however, does not align with the data on poor population groups in the United States (Lichter, et al.). Increasingly, poverty is being distributed across whole communities and towns, rather than just certain parts of these towns.

Going forward, the spatial distribution of poverty is going to be determined more and more by the economic interests of the rich and powerful. Understanding poverty in relation to place, not just internally but externally, is key to understanding how regions are economically exploited and depressed. Despite the evolving *reality* of poverty in Appalachia, the perception has actually changed surprisingly little. As mentioned previously in this section, studies of poverty at large have changed significantly over recent decades.[3] However, within the study of rural Appalachian poverty, perspectives have not evolved to the same degree. The way in which we are currently studying poverty in America is failing Appalachia. Millions of Americans flounder in crippling poverty. Meanwhile, they have become victims of a nation that doesn't quite seem to know how to evaluate it. In the following section, this paper dives deeper into the war on poverty and introduces discussions about the three most common theories of poverty in Appalachia: culturalism,

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[3] This is in reference to the move towards seeing urban poverty as more pervasive and urgent than rural poverty.

domestic colonialism, and predatory capitalism. These
discussions will continue in the section about coal.

The History of the War on Poverty

On January 8, 1964, President Johnson declared
an unconditional war on poverty in his annual State of
the Union address. The problem of poverty in the
southern mountain region of the country was becoming
increasingly apparent against the backdrop of relative
wealth in America during the 1950s and 1960s. While
some may still see poverty as a moral deficiency, that
idea was beginning to disappear from the mainstream
understanding of poverty. In the address mentioned
above, Humphrey insisted that "by the nineteenth
century a growing number of people needed substantial
and long-term help. Factors were being injected into the
equation of poverty which seriously limited an
individual's control over his own destiny" (7). When
Humphrey said this, he was talking about poverty across
the nation. The war on poverty was intended to approach
all of the factors Humphrey alludes to that lead to
poverty. At the time, the Johnson administration was
able to acknowledge the unique nature of poverty in
Appalachia. As a result, initiatives were included to
specifically target the needs of central Appalachia. The
movement "had the dual effect of reviving national

interest in Appalachia and sparking a new debate over the scholarly treatment of its culture and history" (Glen, 1989). This is largely due to the relatively unique structure of poverty in Appalachia. As explained in the section on how poverty is understood, poverty is less often immediately pushing up against relative wealth, and this was especially true during the 1960s.

The broad goals of the war on poverty were to reduce unemployment, improve the health of the nation, support disabled and elderly Americans, and improve education and opportunities for training and upward social mobility. There were ultimately over 200 pieces of legislation passed as part of this initiative. The government instituted Medicare, Medicaid, the Food Stamp[4] program, and the Head Start program during this time. To be clear, there were extensive positive changes made to address poverty by the Johnson administration, and it is important that these improvements are not disregarded in a critical discussion of the movement at large (Santiago, 3). The most widely acknowledged success of the war on poverty has been the longer term decrease in elder poverty. This decline occurred during the 1960s and has continued to stay relatively low. Additionally, nationwide education has improved, and there has been a long-term decline in teen pregnancy.

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[4] This program is currently known as SNAP.

However, even at its inception, the war on poverty was already massively flawed. Namely, the entire movement was built on the theory that there existed a "culture of poverty" in Appalachia, and that different cultural values and customs had made the region obsolete on a national scale. Vice President Humphrey himself noted, "Poverty today is a culture, a tradition, a way of life" (Humphrey, 7). With this belief as the foundation, it is plausible to think that the problem of Appalachian poverty can be solved by ridding the region of ignorance and bringing it to the economic and cultural level of the rest of the country.[5] In 1964, the Government created the Office of Economic Opportunity (OEO) to implement the goals of the war on poverty. The OEO then set up Community Action Programs designed to involve members of the community in developing solutions to poverty. The idea was that, by involving local people and agencies, solutions would be cooperative and easier to sustain. It was expected that this plan would succeed based on the assumption that people experiencing poverty had the same capacity as outsiders to eradicate poverty (Glen, 1989). Self-determination lay at the center of the initiative. In Appalachia, Community Action Programs worked with

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[5] This approach rests on the inherent assumption that the values and institutions of the rest of the country are inherently better than those in Appalachia, a belief that author John M. Glen takes serious issue with.

the Council of the Southern Mountains to encourage cooperation and consensus on how to address the problem.

Eventually, evidence being collected in Appalachia suggested that, even when improvements were being made, significant and sustainable solutions still seemed discouragingly unachievable. The Appalachian Volunteers (an initiative of the Council of the Southern Mountains) found, in the counties where they worked, that "Community Action Programs showed little interest in serving the poor or securing their maximum feasible participation in the antipoverty campaign" (Glen, 1989). Ultimately, they found that program directors in the Cumberland Valley seemed most concerned with serving their own interests, which often meant securing themselves a higher salary. As Flem Messer, who grew up in a poor Kentucky family and went on to work with both Community Action Programs and the Appalachian volunteers, stated:

> The downfall of the war on poverty really was that the politicians, be they from the local judge, superintendent on up, eventually to Presidents Johnson and Nixon at the worst, simply did not believe in maximum feasible participation . . . [and] along came these programs that were outside of the mainstream and they

were just a real threat to the status quo.
And just as soon as they realized that, of
course they just started working on ways
around it. And it was the beginning of the
end of what could have been real change.
(Glen, 1995)

Despite these first-hand accounts, a Community
Action Report out of Perry County, Kentucky blamed
shortfalls of the program on the fact that the poor people
were not participating in these programs because they
were lazy, uninterested, and without the intelligence to
understand or care what was best for them.[6]
Immediately, the responsibility for the failures of the
program fell on the victims, rather than being seen as a
lack of context on the part of the government to
implement appropriate, sustainable, achievable
initiatives. Funds were frequently misallocated and, in
the worst cases, intentionally taken advantage of by
those overseeing the implementation of the program.
Outside individuals were profiting off of funds meant to
lift the most vulnerable Americans out of poverty while
simultaneously alienating these Americans as an inferior

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[6] This information is found in Glen's report on the War
on Poverty. His citation is as follows: Earl M. Redwine,
Report, Perry County, Kentucky, Community Action
Program, Sept. 27-30 and Oct. 4-8, 1965, CSM Papers,
Box 265.

class of person. It is here that we begin to see echoes of the first theory of poverty: Appalachian culturalism.

The "culture of poverty" perspective was the most widely accepted theory throughout the early and mid-twentieth century. This perspective was born out of an "othering" of rural Appalachian, similar to the theory of Orientalization of countries in the East. This theory blames pervasive poverty on the fact that Appalachia dwellers have different values, beliefs, and goals than the rest of the county's citizens. As Humphrey himself said, poverty had become a way of life, a culture, in Appalachia. This theory assumes that there are ubiquitous feelings of fatalism and acceptance amongst residents. It is this theory that was used to blame the failures of the war on poverty on the people, not the government and private sector. Essentially, the argument was that poor Appalachian residents couldn't be helped because they didn't care or want to be helped. Unsurprisingly, this theory tends to be much more popular with those outside of the region than those within it. There is a manufactured romanticism in the struggles that poor mountain dwellers face every day to get by. The presence of Southern Appalachian subculture was actually fading when the theory of a culture of poverty became popular (Walls and Billings).

This model is not commonly applied today, at least not in isolation. There is little evidence that a sense

of fatalism or disenchantment is what influences poverty rates in Appalachia. However, there is value in understanding the framework that many poor Appalachian people were raised in. It is not a lack of motivation or independence that keeps people trapped in a cycle of poverty. Rather, it is a warped perception of individual capacity for self-determination and growth that often limits upward mobility. While it is not productive to blame those living in poverty for their situation, understanding unique Appalachian culture can make the problem easier to address. The theory that there is a cultural norm of poverty in this region is incredibly harmful. It is clear that a key first step to a solution is deconstructing the acceptance of it. Therefore, to put together a comprehensive view of poverty, it is now necessary to look at the long-term involvement of the coal industry in the region.

Coal in Appalachia

In addition to looking at the history of the war on poverty, it is necessary to understand the unique role that the coal mining industry has played in the economic depression of central Appalachia. Coal mining was thriving in the region long before the 1960s. Because of this, exploration into the war on poverty must consider the consequences of the coal industry. While economic

growth is meant to encourage development, the coal industry expanding in Appalachia was a largely harmful one that extracted wealth from the region and sent it elsewhere. In literature in the field of Appalachian Studies, the region is often referred to as an "internal" or "domestic" colony. It is in this regard that it is important to look at another of the theories on poverty: domestic colonialism.

This theory centers around academic reference to Appalachia as a region of domestic conquest and looks at the concentration of poverty in central Appalachia through a lens of colonialism. Domestic colonialism compares the structure of poverty in Appalachia with that in underdeveloped countries around the world. The focus of this perspective is that resources are mined from both Appalachia and underdeveloped countries and used by an outside power. Those living in the area lack agency over the use of their land. This theory was mainly developed by on-the-ground workers who witnessed the failures of the war on poverty. They saw how outsiders came into these communities and tried to fix things without seeming to feel a long-term investment in the well-being of the residents. Likewise, the outside workers lacked a comprehensive understanding of Appalachian cultural dynamics. Additionally, this theory connects environmental issues with political ones (Lohman). Literature looking at

domestic colonialism notes how the environmental well-being of such colonies usually comes second to the resource needs of the controlling body. In Appalachia, coal mining is known to cause extensive harm to both the environment and individual health. However, nothing has really been done to address this because at the end of the day, the priority ends up being wealth extraction.

Like colonies abroad, the region is used by the rest of the country predominantly for its resources. This regular occurrence has led to the idea of a "natural resource curse" (Partridge, et al.). Central Appalachia has become a victim of this curse. Within the entire Appalachian region serviced by ARC, central Appalachia is set apart because of its historical reliance on the coal mining industry. In a statistical analysis published in 2013 the *American Journal of Agricultural Economics*, Mark Partridge, Micheal Betz, and Linda Lobao investigate whether the positive relationship between coal mining and poverty in Appalachia is ongoing, despite the decreasing size of the coal industry. Looking at data from 1990-2010, these authors look at mountaintop removal and traditional mining, and their relationships with poverty. The authors use two samples: ARC counties and the rest of the US. Ultimately, they find that the poorest ARC counties are those where mountaintop mining takes place. Likewise, although the positive relationship between coal and poverty may be

lessening, the authors caution that this could be due to unmeasured factors like the displacement of poor residents and the negative impact on health.

There are many reasons why mining communities are particularly prone to pervasive poverty. Factors mentioned previously in this paper, such as geographical isolation, certainly play a part. Additionally, coal mining towns often have a weaker and less efficient local government structure. In rural communities in general, education tends to be less accessible. This is not a coincidence. When a person is less able to access higher education, they are more likely to find themselves in a line of work that the coal industry relies on. Access to upward mobility would shrink the pool from which coal companies could hire. In addition to education and government, there are many adverse environmental effects that come with mining. This is especially true as a result of the increasingly frequent use of mountaintop mining.[7] Coal mining tends to be strongly correlated with poorer health (Partridge, et al.).

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[7] Mountaintop mining is a process by which explosives are used to remove whole sections of a mountain for easier access to resources. It is much more efficient and requires fewer workers than more traditional mining methods. Mountaintop mining is associated with even higher rates of poverty than traditional coal mining in central Appalachia.

To make matters worse, there is a lack of accessible and affordable health care in these isolated, economically depressed areas.

Despite how harmful coal clearly is in the region, it is also a massive employer. In places with geographic conditions like Appalachia, there are only so many jobs that can be made available on a wide scale. This has created a slow-to-change relationship between the coal industry and the needs of Appalachian communities. Knowing this, coal companies are able to continually take advantage of workers' dependence on mining jobs. If there is no infrastructure for growth and self-determination, this industry is going to continue to exploit this domestic colony with little concern for the people that live there. It is here that we see the third theory of poverty to be examined in this paper: predatory capitalism.

Predatory capitalism is a perspective that is based on the theory of social control. Broadly, this theory asserts that certain populations are intentionally kept impoverished and underemployed in the service of corporations (Lohman). Like the domestic colony theory, this theory acknowledges the intentional exploitation of the region. Unlike the culturalism theory, this theory turns focus to the feelings of the oppressed, not those on the outside. In Appalachia, the predatory nature of capitalism, much like domestic colonialism, is most

clearly seen in regards to the coal mining industry. In some counties in Kentucky and West Virginia, coal mining employs up to 30% of the town's population (Partridge, et al.). Because of the adverse health and wellness effects of coal mining work, a precondition for the survival of the industry is a dependent population relatively desperate for work. By keeping isolated towns in central Appalachia poor, the industry is consistently able to profit off of a cheap surplus of labor. Poverty is not only a consequence of predatory capitalism. It is also one of its foundations, and nowhere is this more clearly visible than in the coal mining towns of Appalachia.

The region's long-term reliance on coal became a focus for the war on poverty. The Appalachian Regional Development Act (ARDA) of 1965 was designed to encourage private investment in the poorest parts of Appalachia as a way to stimulate development and economic growth. However, as found by a 1982 case study of Eastern Kentucky by Charles Perry, investment does not necessarily lead to development. In Eastern Kentucky, Perry found that areas with higher rates of investment and employment by the coal industry were not correlated with development. When this ARDA was passed, it was assumed that investment would lead to growth. However, this is only true when an investor's goal is development. As mentioned above, the coal industry in central Appalachia actually benefits from the

region's widespread economic depression, as it allows them to continuously sustain work that is unhealthy and unpopular.

Many of the initial goals of the war on poverty had job training and new skill-based retraining at the core. The initiative aimed to move away from transfer payments and towards job preparedness to address the root causes of poverty. Additionally, it aimed to better oversee the allocation of resources in Appalachia in an attempt to reduce exploitation. One of the most overwhelming debates throughout the war on poverty was who really controlled Appalachia's natural resources, a foundational question of the colonialism theory. People living there believed they should have control over their own land. The Council, and other government groups, argued, to varying degrees, that the general public should have a say over the whole region, including members of the government who would help determine how land and resources were to be used.

A Comprehensive Look at the Theories of Poverty

Throughout the previous two sections, the three theories of poverty in central Appalachia have been explored independently. While it is important to understand how the perspectives have individually shaped poverty in the region, none of them alone explain

the continued depression of central Appalachia. This section will examine which theories offer better explanations of poverty and synthesize these theories to create a more comprehensive picture of poverty in this region.

None of these three theories alone accurately capture the diverse causes of poverty in central Appalachia. However, when understood together, a clearer picture begins to form. First, to suggest that people experience poverty simply because they value struggle and live with an entirely different value system than the rest of the country is ignorant of the reality of the region. However, the pervasive belief that poverty is more of a cultural issue than an economic one has led the rest of the country to disregard poverty in the region. One would not walk through New York City and assume that homeless populations live a certain way because they do not value the same things as housed New Yorkers. Why, then, is there an instinct to see poverty in rural central Appalachia as just "the way it is"? Thinking of poverty as the result of choices and values is dangerous. This theory cannot continue to impact how poverty in this region is viewed, because it severely diminishes the urgency to aid the region. However, understanding the history of how this theory shaped insufficient responses is key to understanding why the

region has lagged behind the standards of the rest of the country.

As far as domestic colonialism, there is certainly value in comparing how the nation treats both internal and external underdeveloped regions. This theory is clearly worth retaining as a way to study the region. Unlike other parts of the country, Appalachia is distinctly known for producing a good (coal) that is mostly used outside of the region in more populated, developed places. However, there are obvious limitations to only understanding the treatment of Appalachia as domestic colonialism. The most prevalent is that discussions of colonialism almost always contain a key factor of racial division and exploitation based on classifications of race and ethnicity. Unlike what trends tend to show nationwide, poverty in Appalachia is overwhelmingly white. Interestingly, this has actually helped to fuel the culturalism theory, because poverty is seen somehow as a self-determined state, not explainable by discrimination (Klotter). The rates of poverty by race contrast with the assumptions of the country at large. This has to do largely with the distribution of poverty discussed above. When whole communities are economically depressed, the margin for racial bias is lower. Additionally, because of the extreme isolation of some Appalachian counties, this region sees a significantly lower rate of immigration than cities that

are often associated with high poverty rates. Looking at Appalachia as only a type of internal colony does not accurately assess the situation. However, relating the exploitative practices seen both here and abroad help create an understanding of why the region has suffered so uniquely.

Further focusing on exploitation, predatory capitalism is a key branch of the theory of domestic colonialism and opens the door for a better understanding of the economic state of central Appalachia. Although Appalachia has seen industrialization from the coal industry, increased personal wealth has not spread to the general population. Instead, the industry has intentionally maintained a pool of dependent workers who, because of their isolation, may not have any other options for employment. By relying on an impoverished population, the coal industry has significantly inhibited upward mobility. This is not a consequence but an intentional goal of the industry. While the case for the predatory capitalism theory is strong, it alone cannot accurately capture the nature of poverty in this region. This is largely because it doesn't consider unique cultural and sociological elements that differentiate this part of the country from everywhere else. Looking at how capitalism has operated specifically in central Appalachia opens the door for a broader understanding of the obstacles faced by people living

there. When looking at cultural, colonialist, and exploitative forces at work in Appalachia, we begin to see a pattern of intentional suppression, perpetuated by large-scale industry, of a vulnerable yet vital part of the country.

Conclusion

Poverty is a problem that plagues millions of people across the country. However, these conditions do not look the same everywhere. Appalachia is a region that, because of its history, religious framework, and political leaning is often disregarded by the rest of the nation. Much of what is held against Appalachia, though, is not the fault of the people that live there. Rather, it is the result of decades of failed initiatives and intentionally exploitative practices from outside bodies. The war on poverty was an admirable effort that, unfortunately, largely failed to meet the needs of the region. This is because there was a lack of acknowledgement of the uniqueness of Appalachia in everything from its history to its geography. By learning how poverty in Appalachia is not an issue of culture or beliefs, it is possible for the government to offer more meaningful aid in the future. However, the region continues to be alienated by the rest of the country simply because it is not understood. The plight of these

people, tucked away deep in the valleys of the mountains, is often invisible to the rest of the country. This is not an accident, but an intentional result of predatory behavior, and only by accepting this will it be possible for successful action to be taken in the region to allow it to evolve alongside the rest of the nation.

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Questions of Realism in Contemporary East Asian Cinema
Bram Carter

The rapid modernization of East Asian countries in the 20th century makes them an interesting point for cultural observation. As Shohini Chadhuari argues, East Asian countries modernized much later than those in the West.[1] By the late 1970s, neoliberal capitalism as a theory and practice of economic management swept the globe, and this practice had a dramatic impact on East Asia. David Harvey suggests that the neoliberal turn has had important consequences in the form of "creative destruction" of ways of life. These consequences manifested themselves in striking ways in East Asia since states like China experienced a shift from "closed backwater" to sites of "capitalist dynamism."[2] Many films from East Asia in the late 20th century and early 21st century grapple with this "creative destruction" and offer a textured look at the social and economic results of globalization on daily life. In the making of these

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[1] Chadhuari, "East Asian Cinema," 93.

[2] Harvey, *A Brief History*, 1.

films, film makers have had to contend with one of the central dilemmas in representations of East Asia for a global audience: should a film produce a generic picture of a culture in order to draw identification with a key issue, or should it instead give audiences a detailed picture of the culture that may be primarily recognizable to local audiences?

Each of these two strategies has its advantages, but the latter representational strategy has more critical power than the former. Filmmakers that opt for the former tactic create work that is general and easy to identify with but tends not to portray in meaningful depth any existing social context or reality. The award-winning film, *Raise the Red Lantern* (1992), directed by Fifth Generation Chinese filmmaker, Zhang Yimao, chooses this strategy. The film utilizes these stereotypes to excite an international audience with images they will immediately associate with the exotic and mythical portrayals of Asia or the "Orient." Although Zhang's film takes issue with the patriarchal conventions baked into Chinese culture, it uses popular preconceptions of East Asia in order to do so. Moreover, by choosing as its setting a fictionalized Orient, the film is limited in its ability to critique concrete issues that have arisen in contemporary East Asia as the result of neoliberal globalization. In contrast to Zhang's spectacular entertainment, some films from China's documentarians,

as well as from the Taiwanese New Wave directors, have tended to deploy realistic film techniques to provide a rich sense of cultural context and everyday life in East Asian societies rather than an easily generalizable message. These films use techniques characteristic of what David Bordwell refers to as "Art Cinema." In contrast to works of classical Hollywood, art films "show us real locations . . . and real problems."[3] Although identification is more difficult with art films, the critical power of these films is stronger than those made in the classical Hollywood Style.

This paper will focus on Taiwanese New Wave director Edward Yang's internationally celebrated fiction *Yi Yi* (2000) and Chinese documentarian Lixin Fan's *Last Train Home* (2009) as examples of East Asian cinema that use some techniques of the art film for the purpose of exposing and commenting on the damage of neoliberalism on "divisions of labour, social relations, welfare provisions, technological mixes, ways of life and thought, reproductive activities, attachments to the land and habits of the heart."[4] Contrasting the technique choices of these films with those of *Raise the Red Lantern*, I contend that their art cinema-inspired realist style promotes the development of characters that have a sense of both individual autonomy and cultural

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[3] Bordwell, "The Art Cinema," 561.
[4] Harvey, 3.

specificity. The development of these kinds of characters is crucial to both Yang's and Fan's ability to simultaneously preserve the texture of contemporary East Asian cultures while effectively communicating these societies' experience of neoliberal globalization to an international audience.

Art Cinema in Theory

The concepts of autonomy and specificity emerge naturally from David Bordwell's conception of "art cinema," the aesthetic which includes the use of long takes and wide shots aimed at loosening the cause and effect chain typical of classical Hollywood narratives. Such loosening produces productive ambiguity in the narrative. Bordwell explains that in the art cinema "uncertainties persist but are understood as such" and this uncertainty creates a "puzzle . . . of plot" wherein the dynamism created by editing in the classical Hollywood mode is replaced by dynamism within the frame of the shot.[5] Narrative techniques in art films produce more ambiguity and also give less certain insight into the mental states of the characters. This effect differs from the dominant style of Hollywood character development because, "whereas the characters

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[5] Bordwell, 720.

of the classical narrative have clear-cut traits and objectives, the characters of the art cinema lack defined desires and goals."[6] This ambiguity has the paradoxical effect of making characters more specific and autonomous, and therefore humanized, rather than easily recognizable types. By autonomous, I do not suggest that the characters developed by these techniques are more difficult to predict. Rather, I mean that they are afforded psychological freedom as the result of a critical distance that does not allow for emotional identification to overshadow the complexity of the character.

The "Orient" in Film

Raise the Red Lantern illustrates cinema's relationship to these notions of autonomy and specificity by sacrificing complexity to appeal to transnational notions of the aesthetic of the "Orient." This film is a transnational film—or a film that is enjoyed by audiences outside the nation which it depicts. *Raise the Red Lantern* is a work of historical fiction from the Chinese Fifth Generation—the first generation of filmmakers to emerge from the Beijing Film Academy and produce internationally circulated works after the end of the Cultural Revolution in 1976. The Fifth

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[6] Bordwell, 718.

Generation began under Mao when Chinese film studios were funded by the state on fixed budgets and reflected spectacular images meant to appeal to typical international conceptions of China.[7] *Raise the Red Lantern* provides an example of an alternative mode of representing East Asia in film against which the effects of form in these art-style films will become clear. Although some of the techniques of the art film aesthetic are present, this film makes use of the long take and the wide shot for a less critically productive end. *Raise the Red Lantern* tells the story of a young woman in China who goes to be a concubine for a wealthy patriarch. The film is interested in some social critique, of both Chinese patriarchy and the culturally restrictive state. However, its mode of characterization sacrifices specificity and autonomy in service of a vague sense of Chinese culture, which is conveyed through its carefully orchestrated wide shots that invoke an Orientalized East.

Raise the Red Lantern does attempt a critical social analysis, but Zhang's style choices limit the effectiveness of this critique. One scene which pushes this critique sees the main character, Songlian, visited by the master of the estate on her first night living with him.[8] In preparation, her room is filled with bright red lanterns and she is meticulously groomed for his arrival.

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[7] Chadhuari, 93-95.

[8] *Raise the Red Lantern*, directed by Zhang Yimao.

The scene of his arrival is reminiscent of a traditional painting in its composition. Although it uses the long take and the wide shot, it does so for the effect of appealing to the "exotic" image of traditional China. Through this application of these techniques, the character is not complex but reduced to a visual spectacle. The female form of Songlian is centered in a symmetrical shot and bathed in soft red lighting. Instead of realism, the goal of form here is fetishization, both of the female character and of a culture that actually lacks any specificity at all. It is not clear what period in the history of China this film lives in and the supposed location is a mystery as well.

This generation of Chinese filmmakers had an interest in introducing the world to the films of a nation that had been culturally isolated for decades, so they utilized what Shuqin Cui terms "cooperative Orientalism"[9] to secure an audience for their depictions of China to the world. This goal actually complicates the social critique of the film. While Zhang is interested in a commentary on patriarchy, he uses the female form to create enticing images. This necessitates that male characters be moved to the side, but "the invisibility of the male figure leaves a space that invites international spectatorship to project its gaze directly and exclusively

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[9] Cui, *Women Through the Lens*, 840.

on the female image."[10] The film is ambitious in its goals of bringing China into contemporary art and culture. However, the commentary of the film is severely limited by the effects of its formal choices. Zhang had a more general goal with this film, and the formal choices reflect not a specific and nuanced social issue but instead an East Asian culture joining international discourse at the expense of social criticism.

Realism Through Art Cinema-style

But the long take and wide shot, when used to convey social realism, can also produce greater character and cultural specificity, as is visible in *Yi Yi* by Taiwanese filmmaker Edward Yang.[11] This film, which like Zhang's film is an example of contemporary transnational cinema, comes out of the Taiwanese New Wave and features an understated aesthetic of realism. Shots are subdued in terms of lighting and color, and the film uses real locations as opposed to carefully designed sets. In the film, the director grapples with the social effects of rapid modernization in Taiwan. One of the central characters is NJ, the father of a family from Taipei. He is an executive at a company based in Taipei,

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[10] Cui, 844.

[11] *Yi Yi*, directed by Edward Yang.

and in one scene he is sent to Tokyo to discuss a business proposition with a character named Ota. NJ's partners want to work with Ota on an upcoming project. After the two characters share a beautiful emotional connection in their meeting with one another, NJ gets a phone call from his partners back in Taipei to inform him that the company is choosing a different option and there was no need for NJ to go to Tokyo after all.

Yang's implementation of the long take provides better social texture than the type used by Zhang. The meeting scene between NJ and Ota and the phone call scene between NJ and his partners occur back-to-back in long, single takes. These long take scenes serve quite a different function than in *Raise the Red Lantern*. Where Zhang's long takes are voyeuristic, here they serve to heighten social texture and context. In the first of these scenes, Ota and NJ sit together having dinner, and Ota shows NJ a card trick. The two characters are fond of one another, and their interaction is warm and promising. In the following scene, NJ is shown in the reflection of a mirror as he hears the news that the company is going to back out of the deal with Ota. His low tone and posture convey his dejected attitude. When he hangs up and his partners call him back, the camera pivots to look at NJ head-on as he scolds his partners for being so inconsiderate. Both scenes feature a steady camera at eye level with shots wide enough for the characters' full

bodies to occupy the screen. This kind of camera work is hands-off, so that the dramatic space is shown in its entirety. These long, wide takes define the editing style of Yang's film and help to give it a subdued aesthetic. These kinds of shots also give the audience the physical context within which the character makes decisions. Not only is more of the context visible but the ambiguity that the long take creates gives the viewer "psychological effects" and sends them "in search of their causes,"[12]

This is the sense in which cultural specificity comes from the long take. This formal choice lays bare the specific cultural forces acting on a character, and therefore the cultural landscape itself. Through the aesthetic choices of the art film, Yang exposes the social texture of the recently industrialized Taiwan so that the character relationships make sense. The audience has an acute understanding of NJ's emotional turmoil in these two moments of the film as the result of a tension between business interests and what David Harvey refers to as "habits of the heart."[13] In this way, individual goals and motivations are not understood in isolation and more emphasis is put on large-scale social cause and effect. The long take allows inter-character relationships to flesh out fully and in time. Were montage the dominant aesthetic style in a film like this, it would flatten some of

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[12] Cui, 718.
[13] Harvey, 3.

the texture in its over-manipulation of the dramatic space and time. The ambiguity of the long take comes from moving the focus away from editing and towards the physical space of the film itself. This essentially removes direct identification with characters and better explains behavior as the result of some larger social context.

This contextualizing long take is a motif throughout Yang's film. Another scene from *Yi Yi* that lays bare the use of long takes to reveal cultural context acting on the characters is one midway through the film wherein NJ's wife, Min-Min, is found staring out of the window of her office building when her coworkers enter the room and find her. The scene—also a long take—is shot facing the window so that the interaction between Min-Min and Nancy (her colleague) is shown as a reflection on the glass against the city lights of Taipei at night. The Taipei cityscape is a central motif in Yang's film, often being used as a metaphor for the rapid change in Taipei and its social effects. Min-Min is distraught and asks Nancy if there is anywhere she can go before dropping her head and crying. Through the wide camera angle, the characters are shown in full and their body language is foregrounded, but they are only silhouettes against the cityscape reflection, creating critical distance between viewer and subject. The result of these choices is that emotional identification with Min-Min is replaced

by a broader sense of understanding of the psychological effects caused by her context.

The scene is tragic, but not because the audience has identified with Min-Min. Instead, it is tragic because the distant camera work preserves the complexity of the character, and the audience is left to wonder what the causes of Min-Min's distress are, causes that cannot be simplified or pinned down. This wondering is answered implicitly in the foregrounding of the city landscape, which prevents the audience from forgetting the intrinsic connection between the emotional scene on display and the sprawling modern cityscape. This is the context that the form does not allow the viewer to forget. In this scene, Min-Min is trying to cope with her mother's poor physical health and the resulting reflections on her own life. In a later scene, she reveals to her husband that she has nothing to tell her mother about and that she "lives a blank."[14] Clearly, this physical landscape of the modernizing Taipei is related directly to the emotional tension of the characters. Min-Min is growing older and confronting mortality, and she finds it difficult to make meaning of her life in an atmosphere defined by business transactions. This atmosphere is what is on display most in this scene, and that display also preserves Min-Min's psychological autonomy so that identification does not overshadow the complex texture of the issue facing the

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[14] *Yi Yi*, directed by Edward Yang.

character. This technique choice and its resultant autonomy and specificity in the character gives the texture of this social issue and its effects on ordinary Taiwanese people a nuanced representation.

As Yang's long take conveys cultural specificity, it also simultaneously deepens the insight an audience gets into the inner psychology of the character. With characters being analyzed in their social context, their actions reflect a real and complex psychology that does not offer satisfying certainty. This is how these films create more complex characters. The wide-shot long take "zooms out" so that the audience can see the different factors operating on a certain character. However, this "zoom out" also makes sense of the character's inner decision-making process and produces a rich ambiguity about that character's subjectivity. Art cinema is aimed at realism, and this means greater context around the character and far more complicated psychology as a result. This is the technical work that is on display in this scene of Yang's film, and the results would not be nearly as rich in the dominant Hollywood formal mode. Min-Min maintains an ambiguity about her character that also preserves her realism in this scene. Were the audience to identify emotionally with Min-Min, they would be asked to assume her emotional state and not to think critically, which makes her situation simpler and reduces her psychological autonomy. This is what I mean in this use

of the word "autonomy," namely the limiting of the audience's insight into the psychology of the character, which results in allowing greater complexity of said character. This kind of autonomy humanizes the subjects of a film more fully and makes them more textured characters as opposed to generic types in service of a closed narrative. By humanizing the characters in a representation of East Asia, a film stands to gain authenticity in its presentation of a very particular social milieu. In the case of Yang's film, the project is to display the social consequences of globalism and to generalize how those consequences would do a disservice to the real issues being represented.

Social Realism in Documentary

East Asian nonfiction films also utilize some of the same strategies for contextualizing their subjects. Taiwanese New Wave films, like Yang's, are concerned with "the need for a collective history to be addressed," as well as presenting Taiwan's "dependency as a 'post-Third World country.'"[15] Whereas the Fifth generation in China used grandiose visuals and somewhat generic narratives to convey collective history, Taiwanese New Wave films feature formal choices in line with

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[15] Chadhuari, 100.

Bordwell's art cinema to deliver more complex narratives and cultural texture. These formal choices of the art film aesthetic are not only used by fiction filmmakers; in fact, Chinese documentarians have made use of the long take for the same effect of deepening the complexity of characters. One classic example is the award-winning *Last Train Home* by Chinese filmmaker, Lixin Fan.[16] This film places the effects of globalization on full display by documenting one family's experience with the migration of Chinese workers home from the cities for Chinese New Year. Here, as in *Yi Yi*, character depth and specificity are crucial for the film's commentary on the "creative destruction" caused by neoliberal capitalism in contemporary China.

Fan uses the aesthetic of the long-take for his verite-style documentary. *Last Train Home* represents the single largest human migration in the world, and Fan elegantly captures its causes and effects. To help understand the stylistic choices Fan uses to this end, Bill Nichols offers a helpful analysis of the landscape of documentary film in "The Voice of Documentary." In it, he describes the formal style of "cinema verite" as being characterized by a sense of transparency. This style of documentary aims to encourage the sense that the camera captures an unfiltered reality just like one would really experience in the given circumstances. The cinema

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[16] *Last Train Home*, directed by Lixin Fan.

verite aims to obscure the authorial voice behind the narrative in a manner similar to Hollywood films, which invite the viewer to forget that the sequence of images was intentionally constructed. Nichols identifies in this form of documentary filming a problem of attempting to hide the fact that "the film-maker was always a participant-witness and an active fabricator of meaning."[17] A documentary narrative can be problematic if it attempts to present itself as a reflection of objective reality, and Nichols establishes the importance of making the authorial voice known to the audience in non-fiction film.

Fan's film solves the problem of cinema verite by showing the presence of an author within its long take documentary aesthetic. Often in the film, there is a direct address of the camera and characters give context explicitly, but these direct addresses are not given a privileged position of authority in the narrative. These interview-style scenes are shot well within the context of the film and have no distance from the social reality of the film. One example of this technique comes late in the film when the two parents are on the train ride home to visit their children. The camera has just witnessed the two struggle immensely to get onto a packed train, and on the train a white collar worker is being interviewed. His talk of export pricing and margins is set against long

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[17] Nichols, "Voice of Documentary," 18.

shots of weathered travelers, and the viewer's particular knowledge of the hard life of the two parents of the story makes this business talk troublingly ironic. The perspective of the film, then, is somewhat critical of this interviewee and does not take his account as an authority but rather examines his experience closely in its relationship to the larger social landscape he inhabits. This is what Nichols calls "self-reflexive" documentary making where "epistemological and aesthetic assumptions become more visible."[18] This technique preserves the texture and ambiguity of the film by denying the audience clear-cut interpretations. Instead, the viewer must decide for themselves how these different accounts fit together and create their own meaning.

Fan's weaving of an art film aesthetic into his documentary form also helps in creating this productive ambiguity. The film is driven formally by long takes, these being some of the key moments in the film. One of these long take scenes occurs when Qin's father comes to visit her at her new job now that she has run away from home to find some independence. In this scene, the girl's father sits on her bed next to her in an awkward interaction as the two catch up. The father and daughter are obviously aware of the camera, as evidenced by the shaky handheld shots of the scene that give the

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[18] Nichols, 18.

impression of a cinematographer standing in the room with the subjects. The two behave as family members would with a third party in the room filming. This attitude of knowingly being watched gives the sense that any politeness in the encounter is put-on, implying that the relationship between father and daughter is tense and neither of the two is quite sure how to navigate this tension. The long handheld shots in conjunction with the use of wide shots allow the viewer to acutely observe this tension in the body language and subtle cues of the subjects. Through this observation, the texture of the relationship is more fully fleshed out, but this texture comes at the expense of narrative certainty and forces the viewer into what French film theorist Andre Bazin calls an "active mental attitude."[19] As Bazin explains, where "analytical montage only calls on [the viewer] to follow his guide," the long take instead requires that "from his attention and his will . . . the meaning of the image in part derives."[20] By illustrating the complexity of this relationship, the viewer must ask why there is this strange familial tension. The answer to this question comes not from the drama of the film but from the actual cultural milieu that the film portrays. Through the long takes of this scene, the family drama that drives the film

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[19] Bazin, "The Evolution," 35-36.
[20] Bazin, 36.

is cast as the result of social and cultural change, and the particular issues of modern China are better understood.

The East Asian films by Yang and Fan described in this paper have in common a formal style that lends itself to realism in its preservation of ambiguity and an "active mental attitude." Both films—despite being fiction and documentary, respectively—portray East Asian cultures and the harmful social effects of rapid modernization on them in a manner that maximizes cultural specificity by humanizing their characters through complex autonomy and forcing the audience to interpret the ambiguity of the narratives as effects of cultural causes. This provides better nuance in the representation of these countries and their people. A film like *Raise the Red Lantern* attempts to represent China to the world, but does so using a vague presentation of a cultural milieu through long takes aimed at exotic voyeurism. In contrast, films driven by long takes and wide shots that establish and deepen social context, such as *Yi Yi* and *Last Train Home,* provide much subtler presentations of social issues, in large part through their construction of characters that have both autonomy and specificity. The result is that international audiences receive a fully fleshed out and complex social reality that is specific to East Asia as it really is, and viewers are better able to understand the experience of other cultures through these transnationally circulating films. These

art-cinema inspired films are unafraid of entertaining ambiguity and hence they inspire curiosity and concern for the results of systemic injustices facing citizens of the world. Art has the potential to galvanize support for struggles for justice and, in film, it is the art-cinema style with an emphasis on the long take technique that accomplishes this end most effectively for transnational audiences. These films offer a visceral representation of the way social relations are torn apart by the culture of production that accompanies capitalism. In places that were pre-industrial until very recently, having to accommodate the new social hierarchy of business needs over community is jarring. The curiosity of ambiguous social representations inspires further inquiry into this social phenomenon and its causes. By understanding the full scope of the damages of global capitalism on the so-called "Global South," audiences are not simply angry but also acutely informed of the problems and, further, inspired to challenge the dominant forces behind these damages.

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Preparing for Prison: The Criminalization of Black and Brown Adolescents
Natalia Jamiolkowlski

The discourse and conceptualization of the police institution in the United States has brought to light much of the discretionary and discriminatory practices that target marginalized bodies and communities. Yet much of this focus has been centered around adult persons as the full extent of the rule of law can be imposed through executive authority of violence. The adult, in conventional wisdom, is subject to these punitive measures. A voice that is often overlooked, however, is the voice of an adolescent. Policing kids sounds bizarre to any person, yet kids and adults exist in the same spectrum in which certain groups are seen as more expectant and deserving of discipline/security compared to others. The schooling institution, a center for which children receive their education and learn how to navigate their society, has increasingly become a ground for police to become involved in the lives of adolescents. The school resource officer, granted the full weight of a police officer, has been installed in approximately 47% of public schools in the US (Wood & Hampton 360).

Acting as a symbol of authority and security, school resource officers poss a role of deterrence through intimidation where children, especially marginalized students, are criminalized and victimized in the setting of a school. Schools, in turn, become a microcosm of what students expect of their experience in society; where their interactions with the policing institution is mirrored to that of an adult in the criminal justice system. The presence of school resource officers works in convergence with the institutions of schools to impose a narrative of criminality and adultification of Black and Brown adolescents. Collectively characterizing minority children under the language of security places this population, already devoid of rights and representations, into a predisposed path of punitive scrutiny. It is with this understanding that we see a convergence of the criminal justice and education system within the lived experiences of the school child.

The Case in Mesa View Middle School

School resource officers (SRO) have been meant to provide security, mentorship, and education since the 1950s when school integration was implemented after Brown v. Board of Education (1954) and became more widespread from the Columbine school shooting in the 1990s. Existing nowadays primarily as a security

measure against these threats, school resource officers have instead become a means for punitive measures against misbehaviors. This can be seen in the case of a police officer, Zachary Christensen, using excessive force on an 11-year old girl (Vox). The incident is centered in New Mexico's Mesa View Middle School where the police officer was seen in a 77-minute body camera video following the 11-year old girl and pointing out violations of school policy. Using the language that the girl was "disrupting the education process" and even threatening that she was "going to jail for 50 cents" for picking at a sign taped to a door. The interaction escalated to the point where the officer pushed her to the side of the school building and slammed her to the ground. Even in this incident, the officer still denied he was using excessive force. This is not an anecdotal instance; this grounded experience is mirrored to that of other adolescents across the US. The Chicago Lawyers Committee for Civil Rights collected research demonstrating the impact of school resource officers, claiming that they are "not effective in improving school safety, discipline, or climate" (CLCCRUL). Research shows that Black and Brown students feel less safe in schools with SROs and that minor misbehavior is criminalized to the point where they are more likely to result in arrest or court referral. This is not a case where one student felt the unfortunate brunt of force from a police officer in schools; this is a grounded

contextualization that reveals the widespread patterns of Black and Brown criminalization through increasingly punitive measures against trivial misconduct in a school setting. This brings the question as to how the schooling institution and the police institution interact to conceptualize the Black and Brown adolescent as a criminalized and adult body deserving of scrutiny and discipline in the name of a punitive "security".

A Theoretical Foundation

It is important to contextualize how the interactions between school and police institutions shape the experiences of Black and Brown adolescents in a broader, theoretical framework. To do so is to recognize continuities between contexts in order to develop a pattern in how policing is instituted as an executive body. A theorist central to policing discourse is Ron Levi in his article "Loitering in the City That Works". Focusing on the 1992 Chicago Loitering Ordinance, the original intention of the law meant to control circulation of people in urban settings. Yet this intention was met with an unlimited discretion in implementing this ordinance beyond the safeguards set in place. Officers were able to use reasonable suspicion against those who disrupted the circulation in cities, primarily targeting minority bodies under suspicion of criminality (Levi

187). This ordinance, in connection to the increased utilization of school resource officers, builds upon the main responsibility on the side of law enforcement rather than for education and mentorship. What does security mean in schools? Though objective in language, the process of ensuring security in schools leaves much leeway for safeguards to be violated. How does the use of excessive violence against the 11-year old female student signify security? Ultimately, security becomes a biased representation of who deserves protection and who deserves scrutiny, as the loitering ordinance demands a recognition of who is considered a disruption to mainstream society.

This biased representation of security is ultimately defined by the discretion of the police, where police themselves are physical representation of the state in daily interactions. Characterizing the executive authority over violence, it becomes crucial to understand the importance of who is the subject of such attention. Guillermina Seri's chapter on "Police Governance, *Gente* and *Delincuente*" focuses on the context of Argentina where police are a site of state power. Through that given authority, police are given the power to delineate who deserves protection (the Gente) and who is targeted as a threat (Delincuente) based on class lines. When observing the historical context of school resource officers, the implementation of their authority

mirrors the Argentinian context. The beginnings of school resource officers in the 1950s from the Civil Rights Movement, along with their increased utilization in response to the 1990s school shooting, has labeled those who are in need of protection - white middle-class children/neighborhoods - from those who are scrutinized with discretion - minority adolescents in especially urban contexts. Black and Brown adolescents, targeted in the name of security, allows the legitimization and overlooking of this prerogative power of the police. This is especially seen in the Mesa View Middle School case in which the student had been scrutinized extensively and punished due to trivial misconduct. The officer's reasoning in "disrupting the education process" criminalized the misbehavior of a black female student, designating her as the Delincuente of the public school system.

Security is not defined solely by police power; it is also legitimated by stakeholders who hold collective biases against those targeted. Jinee Lokaneeta's chapter on "Scaffold of the Rule of Law" analyzes how the police are enabled by other actors in grounding the Rule of Law in India. School resource officers, with the institutions of the police and school coming in direct and regular contact, are further normalized by the actors in the school and public discourse as there is a collective demand for security. As the school shootings in the

1990s resulted in a moral panic, the growing demand for punitive investments in schools represents a multi-actor agreement on restructuring schools as a surveilled and policed domain. Schools then become a stage where disciplinary measures are increasingly taken by school resource officers rather than handled within the purview of the schooling institution, allowing the simple act of misbehavior such as picking at a school sign to be met with the force of a police officer slamming you down.

Portrayal of Black and Brown Students

School resource officers are granted the full weight of a police officer while receiving sworn authority to work directly in K-12 public schools. Being delegated responsibilities through a triad model (Gomez 3), SROs are expected to provide security for delinquency, act as mentors, and teach students about how to interact with law enforcement. Yet training for these specific duties remain limited as 24 states have passed laws calling for SRO-specific training (Lynch & Chappell 634). Otherwise, SROs fall back on their default role as law enforcement within school environments. As SROs have been increasingly implemented in response to school shootings in the 1990s, the police and school institution interaction has meant to foster a safe school environment that deters

these situations. With moral panic ensuing, the growing fear came to miscalculate these isolated incidents of school violence as regular and expected phenomenons in need of response. This has led to the expansion of school-based policing and zero tolerance discipline in the name of security. However, with the institutionalized nature of security against severe incidents of school violence, common school misbehavior was caught in the language of zero-tolerance and, ultimately, became criminalized.

The panic of school shootings, though warranted, gave much discretion for police in schools to delineate what and who is considered a threat to school security. Despite the outcry for increased protection in schools, SROs have had little or no effect in making a school "safer" (Gomez 4). Rather, the power and discretion of the SRO has resulted in harsh punishments for a multitude of infractions that have disproportionately been represented by minority students. Black and Brown students, facing a system that is more likely to discriminate against them, face harsher punishments for minor infractions that label them as a "superpredator" (Gomez 6). Security, in this sense, moves beyond the point of physical protection and further into the purpose of managing behavior and surveilling youth. Youth of color are portrayed as older, more suspicious, and more delinquent, leading to their disproportionate

incarceration and rates of disciplinary referrals. As common school misbehavior is subjective in interpretation for minority students, Black and Brown adolescents become overrepresented in referrals and arrests given by SROs. Minority students disproportionately face punishment for behavior that is nonviolent and disruptive, yet not beyond the scope of the law. The power of police as primarily law enforcement has been able to transform these stereotypes of the adult and criminalized youth and overwhelmingly subject youth to aggression and increased hyper surveillance. The 11-year old black girl that was threatened arrest for criminal damage to property was subject to constant surveillance and suspicion by Officer Christensen in Mesa View Middle School. The student faced excessive violence from a minor infraction that was subjective to the interpretation of the officer. This interaction between the student and the officer was not an instance in which the officer recognized the protection of that student. Rather, the officer interpreted the minor misbehavior as subject to force in the name of school security, ultimately punishing and threatening the student as a criminalized adult.

Convergence of the Police and School

The criminalization and adultification of Black and Brown adolescents does not simply confer to the mechanisms in the policing institution. The police and the school, rather, work together to create a normalized narrative of youth surveillance. Actors within the school system have contributed to legitimizing the discretionary power to punitively target minority students in the name of security. Despite SROs having little to no effect on the safety in schools, a survey of 3800 teachers in a Midwestern state found that there was a general agreement among teachers about the safety of school and on the position that armed officers should guard schools (Wood & Hampton 363). Yet this finding has also been followed by the perception in which teachers disagreed that school shootings are the main threat to school safety and security, going against the motivation for expanding the use of SROs in the 1990s. This finding is surprising as teachers in the study have also found a counterproductive pattern in which SRO presence made students feel "significantly more concerned about their safety" (Wood & Hampton 366). The disconnect between the teacher and the student, matched with an agreement between armed officers and teachers, works against the interest of the students and allows for the superpredator myth to be implemented under the vision of school security. With zero-tolerance policies and neo-

liberal reconfiguration of schools, the interests of the teachers/administrators and the schools are pitted against that of the student in order to normalize punitive punishments for misbehavior (Vitale 80). Teachers are then observed to be intolerant of attitude and more accepting of persistent racial stereotypes that label Black and Brown adolescents as dangerous and deserving of adult-like punishment that can be delegated to the SRO (who typically receives limited training beyond law enforcement to fulfill their school responsibilities). School administrators, as well, rely on the primary role of an SRO as law enforcement to intimidate students into compliance (Lynch & Chappell 634). This calls attention to the unrecognized intentions of the triad model for school resource officers and how school actors anticipate punitive enforcement of school and legal policies. An armed officer on school grounds allows for the feasibility of state violence to shape and surveil children to provide a secure learning environment.

Yet the discretionary power of school and police in shaping the language of security persists racial stereotypes of subjecting minority students to suspicion/expectancy of criminality and delinquency. Schools then become a "securitized terrain" that delineates the criminal class and compliant class (Rios & Galicia 3) and ultimately fits a prison metaphor for youths labeled as criminals. Students are placed in a

position of expectant surveillance where schools shed their educational purpose and become an extension of the larger carceral state (Vitale 78). Institutions of nurturing and growth become tainted with the vision of social control and fear that protects the school from deviance rather than protecting the student. Such a vision of protection is mirrored in the lack of availability counselors, nurses, psychologists, and social workers: "14 million students are in schools with police but no counselor, nurse, psychologist, or social worker" (ACLU). Reliance is placed on security rather than welfare of students in schools, fostering the environment deterrence through intimidation. The prison school disconnects the student from their educational role and subjects them to a system that degrades and criminalizes them regularly. This is not recognized as a deviant phenomenon; this is a theme that has been permitted by institutional policies and a culture of punitive control that conflates the school and police institutions. The normalized terrain of punishment, though recognizing individual instances of excessive violence as in the case of the Mesa View Middle School student, has provided for the avenue of hyper surveillance and hyper criminalization to subject the 11-year old student to 77 minutes of scrutiny and punitive security. This incident is reflective of larger patterns in which security schools are characterized by the criminalizing of Black and Brown adolescents.

Student Navigation of Securitized Terrain

The impact of the criminalized narrative on students further complicates the interaction with the school and police institutions as students become further disconnected from their educational role. Through an ethnographic study centered around a constructivist grounded theory in how students internalize SROs, Danielle Layton and Paula Gerstenblatt's "They're Just, Like, There" recognizes the normalization and expectancy of criminalizing treatment from their schools (Layton & Gerstenblatt 3). The criminalization of student misbehavior made students feel "powerless" in the prison-like school environment. Yet this recognition of powerlessness from constant suspicion is seen as the price to pay for the condition of safety *despite* not feeling safer (Layton & Gerstenblatt 3). Students are placed in an unfortunate and unforgiving situation in which protection is not geared for them, but they are seen as the targets for achieving protections. Youth remain wary of the possibility of a SRO using lethal force against a student and marginalized impact of policing of minority students. They essentially become accustomed to the macro-representation of police as a state-sanctioned authority in and outside of the school, with virtually no differentiation between how an armed officer suspects and interacts with an adult versus how they interact with a student. Instead of finding separation

of the school and the police, students have also conceptualized SROs as an extension of school surveillance and intimidation for control (Layon & Gerstenblatt 9).

The interaction between the students and these internalizations creates an atmosphere of wariness and distrust within the school institution as it becomes inseparable from the sanctioning power of the police. The disconnection of traditional student roles prompts a questionable interaction with school actors as the criminalization and adultification of Black and Brown adolescents denies any recognition of a child. As relayed by a Latinx student in Victor Rios and Mario Galicia's article, "Smoking Guns or Smoke and Mirrors?", "If you treat the students like adults, they'll begin to act like one" (Rios & Galicia 6). The imposition of criminality on Black and Brown youths challenges the positionality of a child where interactions within a securitized terrain reinforces this disconnect. Students recognize that teachers and community members have a shared conceptualization as SROs, resulting in a school environment that opposes the social safety of the child. This normalized narrative creates an unsustainable environment for development where students feel less happy (Perryman, Platt & Ishino 4), test scores and school attendance are reduced, and psychological distress is elevated (Toro, Jackson & Wang 13). Much

like how adults can become trapped in a cycle of poverty and abuse in policing, Black and Brown adolescents face a securitized terrain that prematurely traps them in the cycle of disengagement and punishment. This has become an unfortunate reality that allowed an 11-year-old student to be criminalized and excessively punished for trivial misbehavior.

Conclusion

The interaction between the police officer and the 11-year old black girl at Mesa View Middle School is indicative of a larger pattern among the converging school and police institutions in which Black and Brown adolescents are criminalized and viewed as adults. Security is rebranded as protection from subjectively defined misbehavior that disproportionately targets Black and Brown youth as a criminalized class. Diverging from the initial interest of school resource officers in response to school shootings in the 1990s, the discretionary power of SROs to implement security has allowed for the stereotypical narratives to cement themselves in the educational system. Law enforcement has increasingly become an avenue of response in schools that results in trivial behavior to face excessively punitive repercussions in the name of compliance and control. Ultimately, the school as an institution for

developing the child becomes conflated with the police as an institution for punishing the adult. This interaction exploits the position of the Black and Brown child to be criminalized to the point of being punished as a criminal adult within a child institution.

Though strenuous to respond to the convoluted crises within the public education system, it is paramount to make the schooling environment safe and trusting for the student. Such answers do not rest in the invitation of punishment measures. Where there is investment in SROs, there is significant de-investment in more responsive and personalized forms of care for the student - take for example school psychologists, nurses, counselors, etc. This is detrimental in the experiences that disproportionately impact the lives of Black and Brown children and expresses a chilling message to under-resourced and overly-surveilled communities: public institutions expect and prepare for failure and delinquency when they are meant to provide avenues of mobility. Children are put on a path-dependent route that characterizes them in a lens of criminality as early as primary school, and this fundamentally undermines the rule of law within our institutions that disproportionately impacts even the most vulnerable segments of society. It is within our purview to recognize, internalize, and respond to this.

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Analysis of the impact of white-tailed deer (*Odocoileus virginianus*) on terrestrial invertebrate populations in regards to their effect on soil

Jaden Mena

Abstract

White-tailed deer (*Odocoileus virginianus*) overabundance leads to various impacts within a terrestrial ecosystem. Among the various effects that these herbivores produce, deer are capable of impacting terrestrial invertebrate populations, especially through their effect on soil. When an overabundance of deer is present, an increased number of deer tread over the soil, which causes soil compaction. As a result, soil moisture and porosity decrease, reducing the nesting sites for burrowing invertebrates. We examined, within and outside of a deer exclusion fence, how white-tailed deer affected these invertebrate populations as a result of their alterations on the soil. Through this study, we wanted to know whether deer did in fact affect invertebrates within our terrestrial ecosystem. Our hypothesis stated that the presence of deer within an area will diminish the richness and density of terrestrial invertebrate populations and impact the soil properties significant to these taxa. While Winkler extractors were utilized to

gather invertebrate data, a soil auger and a W.E.T. sensor were utilized to collect data associated with the soil, in terms of porosity, density, composition, and moisture. The overall frequency of invertebrates in the sampling site absent of deer was significantly higher than that of the sampling site containing deer. The average density per m^2 and the average richness were higher for the sampling sites lacking deer compared to those with deer; however, the differences were not significant. The average soil core dry mass and moisture were significantly higher for the sampling sites with deer compared to the sites without deer. Understanding these impacts is necessary to implement proper and efficient management decisions regarding this species.

Introduction

All organisms play a role in their environment and interact with the various species present within it to some degree. As a result, changes within the population size of species can lead to dramatic changes within an ecosystem as both biotic and abiotic factors could be impacted by the alteration. One species whose changes in population size have dramatically altered ecosystems is the white-tailed deer (*Odocoileus virginianus)*. Enochs et al. (2022) determined that the overabundance of these herbivores resulted from the human impact on the populations of apex predators, anthropogenic modifications of habitats, and the implementation of protection using the legal system, specifically through hunting regulations. As a result of their overabundance, deer have impacted native plant community structure and forest structure, as their increased foraging habits limit tree regeneration (Duguay & Farfaras, 2011; Enochs et al., 2022). When deer selectively feed on tree saplings, deer redirect the succession of canopy tree species, altering the distribution of tree ages within a forest (Shen et al., 2016). Deer have also displayed the ability to affect animal communities indirectly due to impacts on food availability and benefit the growth of invasive species, like Japanese stiltgrass (Enochs et al., 2022).

Among these various impacts of deer on ecosystems, these herbivores have been found to impact soil as the higher number of deer present leads to increased treading of heavier organisms over the soil. As a result, deer overabundance has been found to increase soil compactness, which reduces the size of pores within the soil, decreasing soil moisture. Woods et al. (2019) discovered that the increased amount of excrement by these organisms increases nitrogen availability, affecting nutrient cycling. As a result of the numerous effects that deer can produce, it is necessary to study their impacts to help inform successful management decisions concerning this species.

The animal communities indirectly impacted by deer include invertebrates, which can be found in a wide variety of ecological niches and play central roles in terrestrial ecosystems. Kotze et al. (2022) described that invertebrates act as indicators of change as they are highly sensitive to alterations in the composition and structure of their habitat. Through the study of changes in invertebrate populations, it is possible to gain an understanding of the impact of a disturbance, such as deer overabundance. Alterations in plant biomass by increased deer grazing are linked to changes in invertebrate populations as the substrate used for protection and foraging has been reduced (Duguay & Farfaras, 2011). Also, deer grazing on native plants

impacts invertebrate populations as deer act as direct competitors for food (Stewart, 2001). Along with impacts associated with vegetation, invertebrates are also affected by deer overabundance through alterations in their habitat's physical structure (Kotze et al., 2022). For example, invertebrates, especially soil-dwelling invertebrates, are impacted by changes in soil by deer as increased compactness limits nesting areas for those that burrow (Kotze et al., 2022; Woods et al., 2019). The impact of deer on primary consumers, like invertebrates, leads to a cascade of effects as this reduces the population sizes of secondary consumers that feed on primary consumers (Allombert et al., 2005). Therefore, it is not only important to study the impact of deer in general, but also specifically through the view of invertebrates, which are experiencing a decline in numbers (Kotze et al., 2022).

In our study, we examined whether deer affected invertebrate communities through their influence on the soil. Our hypothesis was that deer presence would decrease the richness and density of terrestrial invertebrate taxa and affect soil properties important to these taxa.

Methods

Study Design

In this study, the soil and terrestrial invertebrate populations were sampled from two areas within Hepburn Woods, which is a deciduous forest located on the western side of Drew University's campus in Madison, New Jersey. Hepburn Woods includes a restoration area surrounded by deer exclusion fencing, allowing for vegetation within the fence to grow without the impacts of deer. An area within the fence and an area outside the fence, which were parallel to each other, were sampled for invertebrates and soil data. The use of these two locations allowed for the impacts of deer on soil and invertebrates to be analyzed. In each location, a five-meter by five-meter plot was constructed containing five 0.5-meter by 0.5-meter PVC quadrats at positions illustrated in Figure 1. The order of sampled quadrats was mirrored between the two locations. Prior to implementing sampling techniques, metadata was collected for each location including the start time of data collection, weather, location relative to the fence, site observations, and the date.

Figure 1

Study design implemented in both areas.
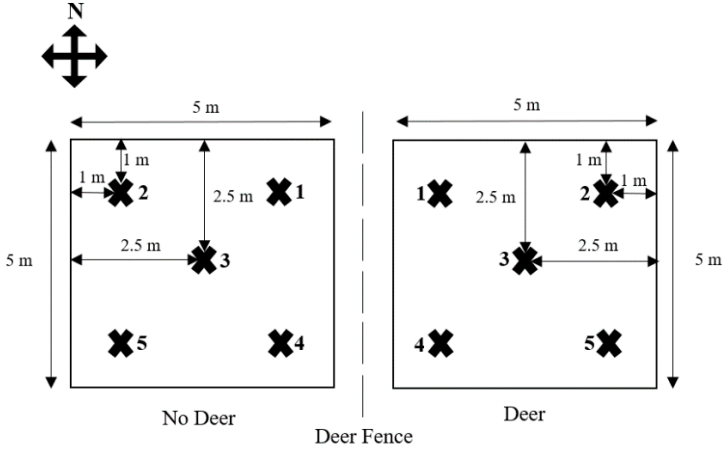
Invertebrate Sampling

Invertebrate sampling was the first technique implemented on the quadrats in each area. For each quadrat, all of the leaf litter and loose humus were removed by hand and placed into a Reitter Sifter with a 1 cm mesh to sift through the litter. The siftate from each quadrat, containing invertebrates and small particles, was deposited into its own cotton bag. The use of cotton bags ensured that the samples were not unnecessarily exposed to humidity or high temperatures by providing sufficient ventilation (Besuchet et al., 1987).

As a means of extracting the invertebrates from the siftate, 10 Winkler extractors (one for each quadrat)

were constructed. The siftate from each cotton bag was deposited into an 18 cm x 25 cm mesh siftate bag with a four-millimeter mesh over a tub to ensure all siftate entered the Winkler extractor. The mesh bag was hung on a wire frame within the top component of a Winkler extractor. 100 mL of 70% ethanol was poured into 10 glass collection jars, which were suspended from the bottom of the Winkler extractor to euthanize and preserve the collected invertebrates. The Winkler extractors were hung by their drawstring once pulled shut. The siftate was agitated within the extractor every 48 hours and the jars were removed and capped after 13 days. The use of agitation ensured that the invertebrates would move toward the collection jars rather than remain in a hiding place within the siftate (Besuchet et al., 1987).

After the given period, the collected invertebrates were analyzed. As a means of examining the contents of each jar, a portion was poured into a gridded tray and examined under a dissection microscope. If an invertebrate was present, a custom dichotomous key for our sampled area was utilized to identify the invertebrates into morphologically distinct taxonomic groups. A tally was maintained for the number of invertebrates found in each identified taxonomic group. The entirety of each jar was examined, and the gridded

tray, after its examination, was rinsed off with water into a waste jar.

Soil Sampling

A soil core was collected adjacent to each quadrat using a soil auger with a 2 cm diameter and the soil sample was characterized in terms of its porosity, density, and any other general observations. A Ziploc bag was used to store each soil core until the mass of each could be determined to analyze compaction. A calibrated W.E.T. sensor was placed adjacent to each quadrat to collect data regarding the soil moisture of the plot. A W.E.T. sensor is a capacitive dielectric sensor that measures the moisture within soil through the measurement of capacitance between implanted electrodes (Dobriyal et al., 2012). These electrodes experience excitation at a specific frequency which allows for the measuring of the dielectric constant, providing an indication of soil moisture (Dobriyal et al., 2012). The soil samples were dried for 48 hours at 60°C, and the dry mass of each soil sample was measured.

Data Analysis

All of the sampling data collected from both locations were organized within an Excel spreadsheet and richness, density, and overall frequency were

calculated. Using a level of significance of 0.05, a chi-square test was performed to analyze the overall frequency of invertebrates, and a t-test was performed to analyze each of the following variables: density, richness, the average abundance for each invertebrate taxon, average soil core dry mass, and average soil moisture. Also, Sorenson's Coefficient was calculated using the formula: $\frac{2C}{S1+S2}$, with C referring to the number of taxonomic groups that Deer and No Deer plots had in common, S1 referring to the invertebrate richness of Deer plots, and S2 referring to the invertebrate richness of No Deer plots. Sorenson's Coefficient was calculated to further analyze whether deer presence impacted the invertebrates within the area, specifically in terms of the similarity in composition between the invertebrate communities present inside and outside of the deer exclusion fence.

Results

Table 1

Calculated statistical tests for variables tested

Variable Tested	Test	p-value
Overall Frequency	Chi-square test	< 0.001
Density	t-test	0.30
Richness	t-test	0.08
Average Soil Core Dry Mass	t-test	< 0.01
Average Soil Moisture	t-test	< 0.001

Through the use of a chi-square test, it was determined that there was a significant difference in the overall frequency of invertebrates between quadrats with deer and those absent of deer presence based on an expected 50/50 distribution (Table 1). The overall frequency of invertebrates in the sampling site lacking deer presence was higher than that of the sampling site containing deer (Figure 2).

Figure 2
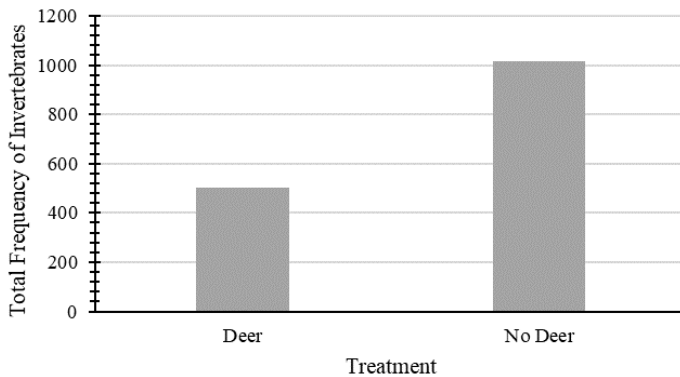*Overall frequency of invertebrates determined for each sampling site.*

Figure 3

Mean density of invertebrates determined for each sampling site, with the error bars representing standard error.
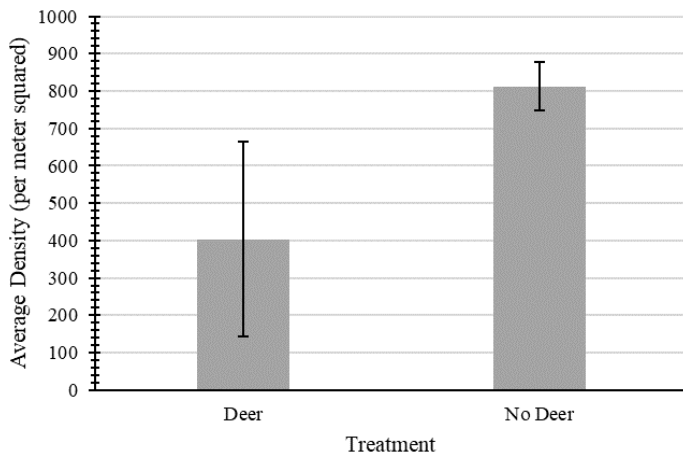

Figure 4

Mean richness of the invertebrate taxa calculated for each sampling site, with the error bars representing standard error.
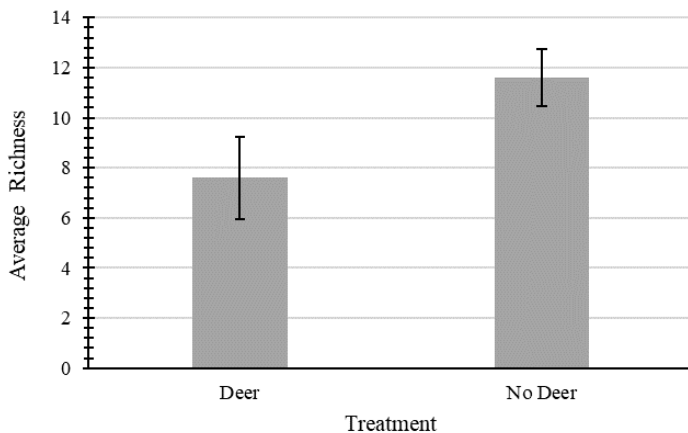
The average density per m^2 and richness determined for the invertebrate taxa, which were higher for the sampling sites lacking deer compared to those with deer, were not significantly different depending on the sampling site (Table 1; Figure 3; Figure 4).

Figure 5

Mean soil core dry mass measured for each sampling site. Error bars represent standard error.
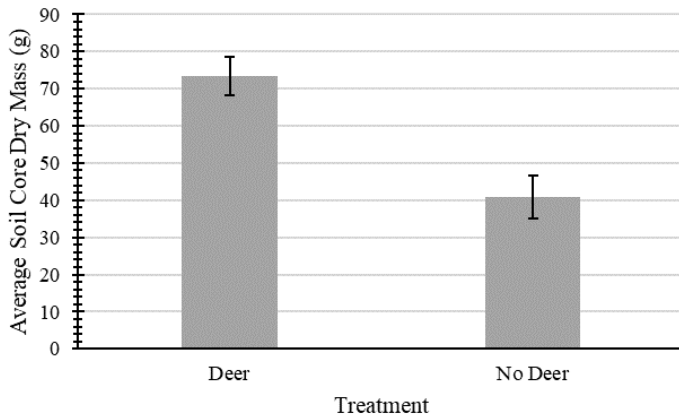
Figure 6

Mean soil moisture detected in each sampling site, with the error bars representing standard error.
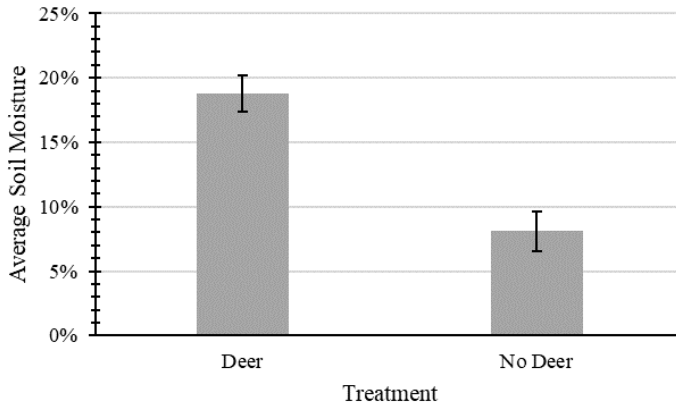
The average soil core dry mass and the average soil moisture calculated for each treatment were determined to be significantly different, with the average soil core dry mass and moisture being higher for the sampling sites with deer compared to the sites without deer (Table 1; Figure 5; Figure 6).

Observations were gathered in regard to the sample site and soil. When our study was performed, there was approximately 75% canopy cover over the sampling area without deer and 90% canopy cover over the sampling area with deer. When the soil auger was utilized in the site absent of deer, only $\frac{1}{3}$ of the

instrument was filled with soil as the soil collapsed in on itself, exhibiting a high soil porosity and a low soil density. Also, the soil was a dark brown color, indicating that it was composed of more organic material. In contrast, $\frac{2}{3}$ of the instrument was filled in the sites with deer, revealing lower soil porosity and higher soil density. The observed soil was an orange-brown color, indicating a higher mineral content.

Table 2
T-test p-values for average invertebrate taxon abundance

Taxon	p-value
Acarina	0.49
Araneae	0.52
Collembola	0.15
Coleoptera	0.02
Diplopoda	0.20
Formicidae	0.67
Hymenoptera	0.63

Figure 7

Mean abundance of each of the common invertebrate taxa found within each sampling site, with the error bars representing standard error.
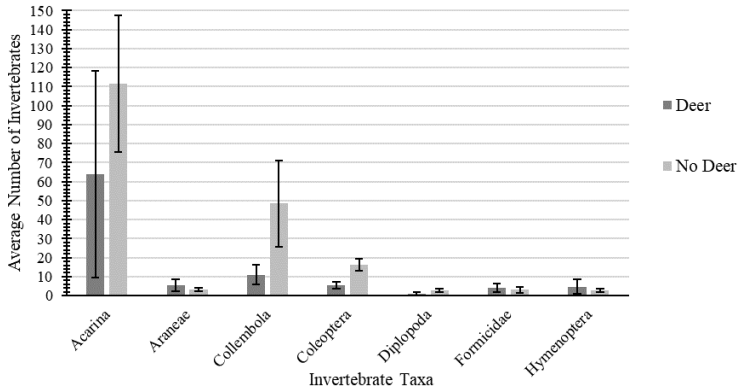
The only invertebrate taxon that had a significant difference between the sampling sites was *Coleoptera* (beetles) (Table 2). Although differences were not significant for the other taxa, trends can still be observed between the sampling sites. Among the most common taxa, there was a higher average abundance for *Acarina* (mites and ticks), *Collembola* (springtails), *Coleoptera* (beetles), and *Diplopoda* (millipedes) in the sites without deer compared to those with deer, where *Araneae* (spiders), *Formicidae* (ants), and *Hymenoptera* (bees, wasps, sawflies, and ants) had the higher average abundance (Figure 7).

Table 3

Calculated diversity index

Index	Value
Sorenson's Coefficient	0.83

Through the calculation of Sorenson's Coefficient, it was determined that the invertebrate communities present in the sampling sites were highly similar (Table 3).

Discussion

This study allowed us to observe the impact of white-tailed deer presence on taxonomic groups of terrestrial invertebrates as well as soil. Our hypothesis was that the richness and density of the terrestrial invertebrate taxa present would decrease in the presence of deer, which would also impact the soil properties significant to these taxa. Certain aspects of our study provided evidence in support of this hypothesis; however, deer, invertebrates, and soil are involved in a complex relationship.

Soil Analysis

Through analysis of our soil data, it is possible to understand the impact of deer on soil. The soil within the

exclosure was observed to contain more organic matter, while the soil outside of the exclosure had more mineral matter. This higher amount of soil organic matter in the absence of deer was expected, as overgrazing by deer reduces the plant matter that would be deposited over the soil and then recycled during the decomposition process (Enochs et al., 2022). The utilized t-tests determined that there was significance in the difference between treatments in regards to the average soil core dry mass and the average soil moisture calculated, with both being higher for the sampling sites containing deer (Table 1; Figure 5; Figure 6). The higher soil core dry mass within the deer site revealed that when deer were present, the soil had a higher density, indicating higher compactness. This was expected, as deer overabundance has been found to increase soil compactness, which reduces the sizes of pores within the soil (Woods et al., 2019). This compact soil was able to be collected from the deer site in a larger amount in the soil auger, compared to the loose soil found within the site lacking deer.

In contrast, the higher soil moisture within the deer site was not expected, as a reduction in porosity should decrease moisture (Woods et al., 2019). Our sampling site outside of the deer exclusion fence was present at the toe slope position of a north-facing hillslope. It has been determined that various landscape positions along a slope can lead to alterations in soil

characteristics, especially since the aspect of slope regulates the hydrological activities within the soil. Previous studies have found that soil moisture is regulated by topography and the position on a slope, and the recovery values of soil moisture after compaction were highest at the toe slope position of a hillslope (Jourgholami et al., 2019). Also, higher soil moisture availability can be found at the toe slope position compared to the other areas on the slope (Jourgholami et al., 2019). As a result, topography could have played a role in our unexpected moisture data. Also, the percent canopy cover was higher over the deer sites than over the sites without deer. Relationships between soil moisture and tree canopy cover have been examined, and it has been found that beneath tree canopies, higher values for soil moisture result within dryland ecosystems (D'Odorico et al., 2007). Therefore, the higher percent canopy in the sites with deer may have impacted the higher moisture content in the soil, but this would need to be explored further to analyze the degree that percent canopy cover affected soil moisture within our sampling sites. As a result, our unexpected moisture data may be more of a result of topography than deer presence.

Invertebrate Analysis

Through analysis of our invertebrate data, we can gather an understanding of the impact of deer on these

taxa. It was determined that the overall frequency of invertebrates in the sampling site without deer was significantly higher than that of the sampling site containing deer (Table 1; Figure 2). This decrease in frequency as a result of deer presence was expected as increased deer treading decreases habitat availability in the soil as soil compactness increases (Kotze et al., 2022; Woods et al., 2019). Increased deer grazing decreases the substrate used for protection and foraging and increases the competition for plant material as a food source, further supporting this result (Duguay & Farfaras, 2011; Kotze et al., 2022; Stewart, 2001). Despite these reasons highlighting the impact of deer on invertebrates, differences in the average density per m^2 and the average richness between sampling sites was not significant; however, a trend was observed involving a higher average density per m^2 and average richness in the absence of deer (Table 1; Figure 3; Figure 4). The scale of our study may have been too small to allow for the detection of a significant difference in invertebrate richness and density. T-tests take variance into account, and as a result, the difference in richness and density might not have been significant because of the high level of variance present in our data. As a means of accounting for this variation in future studies, a larger sample size could be utilized.

Along with the differences observed in the invertebrate populations as a whole, there were also differences present when looking at individual taxa abundance. Sorenson's Coefficient determined that the invertebrate community present in both sampling sites were very similar (Table 3). This indicates that deer presence and absence did not alter the invertebrate community composition to a large degree. The only significant difference that resulted from deer presence and absence was the higher number of *Coleoptera* (beetles) present in the sampling site without deer compared to the site with deer (Table 2; Figure 7). When the average abundances of individual taxa were graphed, there appear to be other significant differences as a result of the lack of overlap in error bars; however, the high amount of variance in our data impacted the significance of the lack of overlap, making almost all of the differences insignificant (Figure 7; Figure 8). Trends were observed in that *Coleoptera* (beetles), along with *Acarina* (mites and ticks), *Collembola* (springtails), and *Diplopoda* (millipedes) had a higher average abundance in sites absent of deer, while *Araneae* (spiders), *Formicidae* (ants), and *Hymenoptera* (bees, wasps, sawflies, and ants) had a higher average abundance in sites with deer, among the taxa that were most common (Figure 7).

These observed trends may provide an indication of other ways in which invertebrates were affected by the status of deer within the forest. The lower average abundance of taxa, such as *Acarina* (mites and ticks) and *Collembola* (springtails), in the site with deer may provide evidence of the impact of deer. Deer will eat the tree species that tend to grow at a faster rate and yield a larger amount of litter biomass. As a result, their increased browsing reduces these tree species, leaving only those that have a slower growth rate and lower litter yields, impacting the soil and litter invertebrates that depend on the leaf litter and its decay (Stewart, 2001). The higher average abundance of taxa, such as *Araneae* (spiders), also may provide evidence of the impact of deer. The spread of invasive plant species can be accelerated through the grazing of deer as they selectively eat native species and avoid invasive species (Duguay & Farfaras, 2011; Enochs et al., 2022). As a result, certain invertebrate species that associate themselves with or benefit from the growth of invasive plant species may increase in abundance. For example, spiders (*Araneae*) can benefit from a high abundance of invasive species, as dense patches of growth can provide structural complexity that spiders desire to support their webs (Landsman et al., 2021). As a result, spiders tend to increase in abundance with the increased presence of invasive plant species (Landsman et al., 2021). While certain taxa may benefit from deer absence as they are

not affected by reductions in leaf litter, soil compaction, or competition for food, certain taxa may benefit from deer presence as a result of beneficial relationships to invasive plants and the increased presence of deer pellets and carcasses, which benefit certain taxa that feed on these materials (Allombert et al., 2005; Duguay & Farfaras, 2011; Kotze et al., 2022; Landsman et al., 2021; Stewart, 2001; Woods et al., 2019). The literature seems to support these alternative hypotheses regarding the impact of deer on invertebrates through various means other than through alterations in soil. These would need to be explored further to determine whether or not these could have played a role in our invertebrate data.

Conclusion

Our hypothesis stated that the presence of deer within an area will diminish the richness and density of terrestrial invertebrate populations and impact the soil properties significant to these taxa. This study did not support the hypothesis that deer presence would decrease the richness and density of terrestrial invertebrate populations; however, it was revealed that deer altered invertebrate populations by reducing the overall frequency of taxa. Additionally, the study supported the hypothesis that deer would impact soil properties, which

was evident in the increased soil compaction and reduced organic matter observed with deer present. Overall, deer presence led to differences in the invertebrates present, with overall frequency being the sole driver of this change. Deer overabundance would only heighten these impacts, which could lead to detrimental effects within an ecosystem. This study assists in the understanding of the ecological impacts of white-tailed deer in the hopes that proper and efficient management decisions can be made to reduce the detrimental effects caused by this species' overabundance.

Acknowledgments

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An Analysis of Romance and Relationships in Utopian and Dystopian Literature
Juliet LaVigne

Humans are social creatures and our relationships with others define us and our interaction with the world around us. Within this overarching term of relationships, romantic and sexual relationships play a key role. These relationships are highlighted in both utopian and dystopian novels, though not always in the same way. Many utopian writings value high moral standards and consider passion and love to be detrimental to society and morality. On the other hand, dystopian novels tend to emphasize love and romance and show it as a key element of humanity and true utopias that can overcome obstacles. Dystopian novels generally focus on a dystopian society where the author comments on what a true utopia would be like whereas utopian writings lay out an ideal format for what the author considers a perfect world. This is even evident in fairy tales, which have a bit of a utopian sentiment in their morals when they end with, "and they lived happily ever after," indicating that love can conquer all. These texts show

how the authors interact with their government and society and how they perceive emotions and relationships. Understanding how and why authors portray a key factor in human societies, relationships, can help anthropologists and historians better understand the culture and how relationships can be viewed in connection with the society as a whole.

The concepts of love and romance are integrated into human society and literature, which is shown in how romance novels are a best-selling genre today. [1] In dystopian novels, like *The Handmaid's Tale* and *The Giver,* love is suppressed and sex is only used for reproduction and not pleasure. In George Orwell's *Nineteen Eighty-Four,* two of the main characters have sexual and romantic relations as a form of rebellion because they are so thoroughly suppressed in their society. In more modern young adult dystopian novels, the authors use romance as a way for the main character to see and understand the problems in their supposedly utopian societies. Utopian literature, on the other hand, sometimes promotes the opposite. In William Morris's *News from Nowhere,* the inhabitants of the utopian society are encouraged and expected to fall in love and have sexual relations with other people.[2] The difference with this book is that it is Morris's ideal society whereas

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[1] "Best Sellers - Books." *The New York Times*.

[2] Morris, *News from Nowhere*.

some other utopian novels are critiques of current society and where it could end up. In utopian societies, sexual and romantic relationships threaten society's control of human impulses and morality. Plato, constructing a utopia in the *Republic*, discusses romantic and sexual relations as amoral and references as problematic for society all the immoral Greek myths.[3] Romance is, in and of itself, a form of freedom and individual expression which makes it a threat to most utopias that tend to oppress personal liberties in the name of the general good. This paper will analyze utopian and dystopian literature and how these texts interact with relationships and romance, as well as the fine line between utopia and dystopia.

Utopian and dystopian literature are both characterized by the description of a supposed utopian society that is either proven to be utopian in the novel or is criticized and revealed to be a corrupt and oppressive society through the actions and feelings of the main character. In Voltaire's *Candide ou l'Optimisme,* the main character, Candide, discovers Eldorado with his valet, Cacambo, all while trying to rescue his true love, Cunégonde.[4] While in Eldorado, the king shows them that it is a perfect utopia and that everyone in Eldorado is happy and content, though isolated from the world.

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[3] Plato. *Republic*.
[4] Voltaire, *Candide*.

Candide is fascinated with how the people in Eldorado view wealth and riches. The ground is littered with gold, which the king calls, "notre boue jaune," which means "our yellow mud."[5] This shows the insignificance of gold in their society since it is so prolific. Candide requests some sheep laden with gold for his and Cacambo's departure because he believes this will allow him to buy Cunégonde's freedom. The appeal of a crimeless, happy society where the people have no worries and no greed is strong, but to Candide, it is nothing compared to being with his true love. While Candide could have easily forgotten Cunégonde and stayed in the utopian Eldorado, he chooses to go back out into the world that has beaten and pushed him down all for love.

Voltaire paints Candide as an optimist even when his life falls apart and his true love is enslaved. This shows the beauty and power of love in human nature. Some people can be taken over by greed or manipulation, but Candide was not swayed by the wonders of Eldorado. He said to Cacambo, "Il est vrai, mon ami, encore une fois, que le château où je suis né ne vaut pas les pays où nous sommes ; mais enfin, mademoiselle Cunégonde n'y est pas ; et vous avez sans

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[5] Voltaire.

doute quelque maîtresse en Europe."[6] Here, Candide is expressing how even with all the splendor around him, he cannot stop thinking about Cunégonde. He wants to return to her even though he knows that he will likely never find Eldorado again. What is different in this novel is that there seems to be no oppression or malicious intent from the head of the government. The king is sad to see Candide and Cacambo leave, but he helps them and gives them gifts to take on their journey.[7] I believe that this eagerness to help and this show of kindness sets this utopia apart from many of the other novels, but I think this occurs because Voltaire was not writing a utopian or dystopian novel but more a tale of human optimism and life.

While Candide shows an extreme example of human optimism, Offred from Margaret Atwood's *The Handmaid's Tale* shows a more pessimistic or realistic point of view. In the society of Gilead, Offred is a Handmaid whose job is to produce children in a society where the birth rate has drastically dropped.[8] Offred's name means "of Fred," showing that she is owned by the

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[6] Volatire, 66. Translation: "It is true, my friend, once again, that the castle where I was born was not worth the country where we are; but Miss Cunégonde is not here; and you have without doubt some mistress in Europe."
[7] Voltaire, pg.66
[8] Atwood, *The Handmaid's Tale*.

Commander whose name is Fred. While she has small rebellions throughout the novel, she largely gives in to her new life in Gilead. Throughout the story, the reader gets glimpses into Offred's life before the rise of Gilead, the current government. Similar to Candide, Offred had experienced a society apart from the utopic, or supposed utopic, that she currently lives in. She was in love and had a daughter, but that was all lost when the new government took over. Gilead is a biblical society, where they enforce a single, state religion which appears to be a strict form of Protestantism. In this society, women are significantly inferior to men and have to stay in the domestic sphere. Handmaids are seen only as their reproductive function and capability and their job is to have children while the wives remain chaste.

Through Offred's narrative, we see her submit to the wills of Gilead and her role as Handmaid, though she still thinks often of her daughter and partner. Atwood does a good job of showing how an oppressive society can break someone's spirit. When Offred is trained to be a Handmaid and in the new ways of Gilead, one of the "Aunts," or women who are in charge of the facility, says, "Ordinary . . . is what you are used to. This may not seem ordinary to you now, but after a time it will. It will become ordinary."[9] The aunt is telling the women that eventually, they will forget their old lives and love

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[9] Atwood.

to embrace and accept the new societal structure they now live in. Offred finds herself constantly doubting her past life and wondering if love even exists. She is forced into sexual relations with a much older man, and she has liaisons with the Commander's driver. Throughout all of this, she tries to feel something and understand how her life has gotten to this point. In Gilead's society, love is non-existent, and a woman's role is condensed to the home, whether as a house servant, a wife, or a Handmaid. In these roles, only the Handmaid is supposed to have sexual relations, as their one biblical job is to reproduce. This eliminates love and romance from people's lives. Atwood shows how this imitation of relationships is not really enough for society. In the novel, Atwood introduces a hotel of "Jezebels" where the men of the society can have more freedom in their sexual encounters. While the high-class men have this outlet, any women who have sexual encounters, outside of being a Handmaid, are hanged. Because of how oppressive the society is, with the "Eyes of God" everywhere, Offred loses hope during the novel as she is used for her body and told that she is inferior to many of the people around her.

But, importantly, the reader gets glimpses of her life before Gilead. When Offred thinks back on this life, and more specifically on Luke and her roommate, Moira, she starts to rebel in small ways and test the boundaries

of her new life. These memories give Offred hope that her old life is still out there and that she is not stuck. The strongest motivator is her daughter, and she even has an illegal affair to try to get pregnant so that Gilead will not send her away to the Colonies.[10] This love, for her daughter, her partner, and her roommate, motivates Offred to make small rebellions and to continue to have hope for a better future. When she finds out that the wife of her Commander knows about her daughter, Offred is furious and does what the wife, Serena, says so that she can see a photo of her daughter.[11] This love and devotion are what the government wants to take out of society, but it drives Offred forward.

Another society where sex and love are suppressed is found in George Orwell's *1984.* In this book, the reader follows the life of a downtrodden worker of the Ministry of Truth, Winston Smith.[12] Winston knows that Big Brother, the symbol for the totalitarian government in the novel, lies to its citizens and that he is a part of it, so he tries to rebel against the system. His rebellions are small, like writing in a diary until he meets Julia and falls in love. While reading the story, it is unclear if this relationship is real love or if it was just two people trying desperately to feel something

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[10] Atwood.

[11] Atwood.

[12] Orwell, *1984*.

in a society where strong emotions are forbidden. Julia and Winston meet frequently and have a sexual relationship that is illegal in this society, Oceania. With every meeting, they become bolder and bolder until they are inevitably caught. By refusing their citizens any kind of connection or feeling, the government is bound to experience some kind of resistance. While in *The Handmaid's Tale,* religion is at the forefront of society, it is more subtle in *1984.* In Oceanian society, Big Brother watches all and judges the citizens based on their actions, so Big Brother can be seen as a euphemism for God in the novel. This emphasis on morality is also present in *Candide* especially in Candide's optimism and in the utopian city of Eldorado.

It is in human nature to try to form connections and relationships with others.[13] Even friendships are powerful, as Orwell shows with Winston's friendship with O'Brien, though it proves to be Winston's fatal mistake. While his rebellions inevitably lead to his capture and subsequent torture, he fought to experience love and friendship. Relationships are a vital part of human life and while Big Brother tries to suppress these, as the novel progresses, it becomes clear that many people are constantly being captured or branded as traitors to the party. This shows that even though Big Brother remains in control, many citizens are rebelling

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[13] McGee and Warms, *Anthropological Theory.*

and are either vaporized or tortured until they are forced into blind complacency. The people of Oceania need to feel something, but as soon as they do, they are caught and tortured until they are revolted by the very idea. At the end of the story, Julia, who relished in her sexual promiscuity, hates the very mention of sex after being tortured by the Ministry of Love.[14] While these citizens are craving connection and relationships, they are being brainwashed and tortured into believing that it is morally wrong and against Big Brother. This shows that Big Brother understands what a potential threat love could be. It brings people together and creates optimism and hope, which are all terrible ideas if one is trying to control a society. This is why Plato in his *Republic* recommended that the guardian class be raised together as one collective family and that arts such as epics and poetry should be banned as they could corrupt the youths with bad morals.[15] Love and even just a relationship or connection can be so powerful that it can threaten an oppressive society.

The concept of love and collectivism is challenged in Ayn Rand's *Anthem,* where a collective society exists without the word "I."[16] In this society, everyone does things for their fellow brother and sister

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[14] Orwell.

[15] Plato.

[16] Rand, *Anthem*.

and never for only themselves. Everyone loves each other, but, as the novels mentioned above, romance and sex are suppressed in the world of *Anthem*. This is to create a sense of the collective so that people are not greedy or selfish and only do things that benefit the whole of society; however, this creates a lack of purpose in some people. For the main character, Equality 7-2521, this makes him feel listless since he is very intelligent but was assigned the job of street sweeper. By doing this, the society made him feel dejected and unappreciated, which allowed him to take advantage of the old train tunnel he finds, where he discovers electricity. By giving him a job that did not use all of his abilities, the society creates a dissatisfied citizen who is more likely to find like-minded individuals and create connections. This is exactly what Equality 7-2521 does when he finds the Golden One. He instantly fixates on her and puts her onto a pedestal as he views her as perfection. In this scene, the reader learns about society's view on sex and how it is only a means of reproduction and is not meant for pleasure or love. Equality 7-2521 immediately wants to protect the Golden One from having to experience this and when he flees the community after he "invents" the lightbulb, she follows him.[17] While Rand incorporates relationship and love into the initial community, it feels forced and almost as if it is fake, so when Equality 7-

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[17] Rand.

2521 truly feels passion, it is like waking up from a dream and into reality. This is paralleled by his invention and realization that the House of Scholars is a fraud and rarely invents things to benefit the community. After fleeing the community, Equality 7-2521 and the Golden One find a home to call their own and decide to create a new community where personal freedom is paramount.[18] Rand's main point is about capitalism and communism, but hidden in the novel, the reader can find how romance and love influence the ideas of the main characters and help them to realize that they do not belong in the community.

Similar to what Offred experienced in *The Handmaid's Tale,* sex and reproduction still exist, though it is looked down upon and regarded as a base need. This is also seen in *1984* which shows how these societies understand that reproduction is necessary to the survival of the human race, but they deem that attraction and recreational sex to be unnecessary and even detrimental to society. *Anthem* brings this concept to a new level by showing how two individuals broke free of the society and followed their passion.

Rand's work is similar to Yvgeny Zamyatin's *We.* While Rand is commenting primarily on collectivism and capitalism, Zamyatin focuses on

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[18] Rand.

dictatorship and oppressiveness. In the novel, D-503 is a rocket engineer writing about his life in OneState, the current government that formed after the final revolution.[19] In this society, the government monitors the citizens' every move. In this sense, it is similar to *1984* especially when comparing Big Brother to The Benefactor. Both of these dictators control every aspect of people's lives, but the main difference lies in the class structure. In *We,* there is no distinct class structure and it is more like *Anthem* in the way that it showcases the collective compared to the proletariat class that is almost outside of the government system in *1984*. In order to showcase the complete control that OneState has, Zamyatin depicts everyone having glass houses and being assigned sex partners so that even the most intimate parts of people's lives are on display for the government to monitor. This makes sense as Zamyatin lived through the transition of Russia to the USSR, similar to how Ayn Rand experienced the communism of the USSR and the capitalism of America.

In *We,* D-503 meets I-330 while on a walk with his government-decreed sex partner, O-90.[20] This encounter is critical to the rest of the story because D-503 forms his first genuine relationship. Prior to this, he listened to the government and built a spaceship to

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[19] Zamyatin, *We*.
[20] Zamyatin.

conquer new lands and new peoples. At first, I-330 annoys him by shamelessly flirting with him, but he can not bring himself to turn her in. She is different and has an independent personality whereas O-90 is dependent. This is shown in how I-330 has her own life and thoughts outside of D-503, while O-90 is desperate for his attention and even demands he has a child with her. By interacting with I-330, D-503 is able to start thinking for himself. He starts to go to rebel meetings and has clandestine sexual encounters with I-330. He even agrees to have a child with O-90 knowing that this would be a death sentence for her. This shows that D-503's relationship with I-330 changed him and opened his eyes to the corruption of the government, but he still does not necessarily make good decisions. By meeting I-330, D-503 is exposed to true passion and feeling for the first time. His writings for OneState become more erratic when he has clandestine meetings with I-330 and when he meets with the rebels. Toward the end of the novel, though, it seems that D-503 is coming full circle. He doubts and fears I-330 and eventually does try to report her, which leads to him getting a procedure that eliminates his imagination. This reverts him to the faithful servant of the OneState, like he was in the beginning. His emotional and mental changes can be observed in how he writes about The Benefactor and the OneState, which go from unsure but faithful to erratic and confused to, finally, acceptance and compliance.

This shows how relationships can impact how someone views the world and make them question what they originally thought was right. Zamyatin shows how the government was threatened by this and the only way to make sure that it would not impact their control was to physically alter the human brain. This shows that in dictatorships, human relationships and emotions are dangerous to the government, so, by experiencing a true relationship, D-503 is able to break free of the oppressive government, even if only for a short time.

The trend of not belonging is also found in Lois Lowry's *The Giver.* In her book, a young Jonas finds himself on the outside of a community that he has belonged to his entire life.[21] This society is oppressive and has constant surveillance everywhere. Children's lives are planned out and they rarely have any choice in their futures. Jonas is assigned his life role at the age of twelve with all of the other children his age. He is assigned a special role as the new Receiver of Memory.[22] Through his training with the Giver, he experiences extreme emotions like pain, grief, and joy that others in this society do not have to deal with. In this society, emotions are suppressed using a pill that prevents people from having sexual desires, as well as a form of family therapy where members of the family share their

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[21] Lowry, *The Giver*.
[22] Lowry.

emotions and help each other move past them. Sex is basically eliminated from society, except for birthmothers whose only job while they are young enough is to have children. This role is looked down upon by the society members, and many people strive to receive a better placement. Jonas's role forces him to experience these extreme emotions and through this, he develops an attachment to a young baby that is in his family's care. Jonas grows to love the baby since they share common traits, like light eyes, and he learns that babies who do not make the cut are killed. While Jonas has a family and friends, he starts to feel as though these relationships are just a façade of real emotions. When he learns that the baby, Gabriel, is set to be killed, Jonas feels as though he has no choice but to flee his community to protect him. This shows his growing attachment to the child, but the reader also experiences Jonas's sorrow at leaving his friend the Giver, who was training him. The society tried to suppress emotions and, when people experienced extreme emotions, they proceeded to do rash things, like run away without supplies or commit suicide.

Familial and romantic relationships are explored in connection to general happiness in Ray Bradbury's *Fahrenheit 451*. Bradbury uses Montag's relationships with Mildred and Clarisse as foils of each other and to

showcase the changes in society and overall happiness.[23] In Montag's first interaction with Clarisse, she asks, "Are you happy?" before running into her house and leaving him to his thoughts.[24] This is then contrasted by Mildred who has taken too many sleeping pills. Montag finds his wife lying on the bed and has to call to get her stomach pumped. When Montage walks into his house, he thinks, "It was like coming into the cold marbled room of a mausoleum after the moon has set. Complete darkness, not a hint of the silver world outside, the windows tightly shut, the chamber a tomb-world where no sound from the great city could penetrate."[25] This contrasts with the lightness and ethereal feeling he had when he was talking with Clarisse. When Montag enters his house, he realizes the answer to Clarisse's earlier question; he is not happy. Happiness plays a key role in *Fahrenheit 451,* and it is shown through Montag's relationship with others. His relationship with Clarisse helps him to question the government and society around him while his relationship with his wife forces him to come to terms with his unhappiness.

Like other dystopian novels, the fondness that Montag feels for Clarisse opens his eyes and makes him question the world around him. He starts to wonder

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[23] Bradbury, *Fahrenheit 451*.
[24] Bradbury, 10.
[25] Bradbury, 11.

about what society was like before firemen burned books and when people sat and talked to one another. At first, he finds this absurd and he asks Clarisse what they would even talk about. This relationship is meant to make Montag think about his life and society as a whole. This is compounded by Montag's relationship with Mildred, which is cold and impersonal. Throughout the book, the reader can see that Montag cares to a certain extent about Mildred, but that she seems to be indifferent to him and to life in general. She only cares about her parlor with her "family" and television walls.[26] She doesn't care about intellectual thought and at times it seems as though she does not care about Montag at all. When Montag believes that he is sick, he asks for aspirin and for her to call his boss, but the entire time she is trying to watch her programs and seems annoyed that he is not well. Montag tells her that he does not want to be a Fireman anymore and Mildred seems confused as if the only thing he could ever do was be a Fireman. This tense and toxic relationship builds upon Montag's growing paranoia and disillusionment with the government. This is similar to how other main characters in the previously mentioned novels start to question the society in which they live.

While Clarisse is only present at the beginning of the book, her influence on Montag's life is stark. Her

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[26] Bradbury.

constant questions and curiosities prompt Montag to contemplate his life and his impact on the world. This is mirrored in the scene at the end of the book with Granger and the homeless intellectuals when Granger says:

> Everyone must leave something behind when he dies, my grandfather said. A child or a book or a painting or a house or a wall built or a pair of shoes made. Or a garden planted. Something your hand touched some way, so your soul has somewhere to go when you die, and when people look at that tree or that flower you planted, you are there. It does not matter what you do, he said, as long as you change something from the way it was before you touched it into something that's like you after you take your hands away. The difference between the man who just cuts lawns and a real gardener is in the touching, he said. The lawn cutter might just as well not have been there at all; the gardener will be there a lifetime.[27]

This quote relates back to how Clarisse's influence made Montag think about his place in the

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[27] Bradbury, 57.

world as well as everyone else's. Montag worries about Mildred at the end of the novel because he thinks that he will not mourn her when she dies. It shows how relationships can shake someone's foundation. When Montag meets Clarisse and starts talking with her, his world changes. He had been thinking about the curiosities of their society, but once he meets Clarisse who openly questions them, he starts to notice and tries to comment on what really bothers him about their society. Clarisse's impact on Montag stays with him for the entire novel, even after he finds out that she died. This strong influence shows how they cared about each other in a way that Mildred was not. This kind of relationship and level of care can be seen in the other dystopian novels that were discussed previously as well, and they help the main characters break free from the molds their societies forced them into. This is particularly noticeable in *1984* and *We* when the main characters start to question society more after meeting someone they are attracted to, which causes them to start to bend and break the rules that the society had laid out. Bradbury shows how different kinds of relationships can influence how a person acts or perceives the world around them. This is very important in dystopian literature because it allows the reader to relate to the character and for the character to push through the oppressive societal bonds.

Humans are social creatures which is why we have formed societies and created cultures, but as these dystopian novels have shown, sometimes society takes over on an individual level. When the supposed good of everyone outweighs the value and importance of personal relationships, the society has become corrupt. Relationships are key to human life and health. This is shown in how many of the main characters in these novels start to rebel against the society they live in when they experience or remember a true relationship. Experiencing the extreme emotions that come with a relationship also seems to go against what many of these societies are trying to promote. In most of these novels, like *1984* and *We,* any kind of romantic relationship is frowned upon, and people are supposed to be level-headed and submissive to the government, but when the main characters experience real passion and love, as well as anger and fear, their view of the society changes. These emotions come with almost any kind of relationship; love for the other person, anger when they act in a confusing way, and fear of losing them or getting hurt. Passion, though, is only experienced in a romantic relationship and many of these novels seem to show that this can be the most dangerous of all to oppressive societies.

The Giver and *The Handmaid's Tale,* showcase a different kind of relationship that proves to be powerful

as well. In *The Giver,* the two main relationships that influence Jonas enough to rebel against society are those with the Giver and Gabriel, which are more like familial relationships than friendships. Jonas views the Giver as a paternal figure and Gabriel as a brother. His instinct to protect Gabriel drives him to break free from his oppressive, emotionless society. For Offred, though she remembered her love for her husband, it was the love for her daughter that motivated her to make small rebellions against the patriarchal society that she was forced into. This novel is interesting in how the relationships that prompt Offred to push against the new society are from her previous life. Even though these relationships are memories, they still act as a comparison to her current situation in a similar way to how Jonas's new relationships affect him.

These utopian and dystopian novels show how relationships, love, and emotion are important in any society. Social relations are a key component in any society and are key in anthropological study and theory. By better understanding how these relationships are portrayed in utopian and dystopian literature, anthropologists and historians can understand the intersection between the individual and the government. When governments oppress the people and suppress basic human instincts, citizens will rebel because it is in our nature to want to form connections and to feel and

experience love. The examples above show how the main characters would push back, sometimes successfully and sometimes not, against the controlling government that was oppressing them. When love and romance are introduced, people can feel emboldened or even invincible.[28] This can give them the courage to push back against the corrupt government in the hope of something better to come. Utopian and dystopian novels remind us that human emotions are powerful and are important parts of society and everyday life.

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[28] Claeys and Parrinder, "Utopia and Romance."

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Blackness in Horror: Defining the Black Horror Genre from *Beloved* to *Us*
Anisa Robinson

Introduction

In contemporary media, the horror genre has been used as a platform to examine socio-political identities, not the least of which is race. Several U.S. cultural texts, including Toni Morrison's award-winning novel, *Beloved,* as well as the contemporary horror movies *Get Out* and *Us* directed by Jordan Peele, make clear the intersections between race and horror. In her analysis of horror films from the early 20th to the 21st centuries, Robin R. Means Coleman identifies two core subgenres of horror films—"Blacks in Horror" films and "Black Horror" films.

"Blacks in Horror" films are "historically produced by non-Black filmmakers for mainstream consumption." They "present black and blackness even if the horror film is not wholly focused on either," and thus "contribute to discussions of Blackness and its proximity to interpretations of what is horrifying" (6). Conversely, "Black Horror" films are "informed by

many of the same indicators of horror films," but also function as race films by paying attention to "Black culture, history, ideologies, experiences, politics, language, etc." (7).

What marks the difference between the two is that "Blacks in Horror" films are not specifically or consciously concerned with Blackness and more so deal with the racialized nature that some horror films can take when having white protagonists fight against "black" monsters, like in *Creature from the Black Lagoon* (1954, Jack Arnold). In effect, "Blacks in Horror" media create commentaries that reinforce the social values of Blackness as something other, or evil, while Whiteness is associated with goodness and purity, thus reflecting real-life racial hierarchies. Meanwhile, "Black Horror" films utilize genre conventions while simultaneously incorporating aspects of the African American experience in service of some form of positive commentary on Blackness.

Coleman identifies these categories as relating to genre films, but they can be extended to include horror texts as a whole. Further, Morrison's *Beloved* expands upon Coleman's definition by anticipating a contemporary form of Black Horror to which later filmmakers like Peele are indebted. In this contemporary form, Black identity is problematized in the form of a psychic and physical split that must be remedied through

the domination of one side as opposed to a form of cohesion.

Mapping the Genre

When discussing the concept of the genre film, Thomas Schatz writes that it, "like virtually any story, can be examined in terms of its fundamental narrative components: plot, setting, and character," which exist in a "familiar formula that addresses and reaffirms the audience's values and attitudes" (454). He contends that "Each genre film incorporates a specific cultural context . . . in the guise of a familiar social community," which he defines as a "cultural milieu where inherent thematic conflicts are animated, intensified, and resolved by familiar characters" (455). Put differently, the genre film is unique in that it relies on formulaic conventions of plot, character, and setting that convey the specific themes of the genre and the socially dominant values of the time period in which it was produced. Each genre uses these conventions differently: for example, Schatz describes how the detective genre relies on actors/protagonists who are brooding and morally grey to communicate the gritty nature of their job. Meanwhile, the horror genre stands out as it relies on its construction of monstrous antagonists for the sake of evoking fear in its audiences.

According to scholar Isabel Christina Pinedo, horror films are meant to "disrupt the everyday world, transgress and violate boundaries, upset the validity of rationality," and "resist narrative closure" (qtd. in Coleman 5). These texts are meant to be evocative and thus defamiliarize societal ills by turning them into supernatural fears. For example, *Dracula* was written at the height of Britain's reign as an imperial power and the titular character was meant to reflect fears of an "unknown" invader. This fear of the unknown or the other is crucial to the horror genre and has led to some of the most popular horror texts to date. However, the othering of the antagonist has also created a precarious situation when looking at the socio-political implications of these "monsters," hence the issues surrounding the "Blacks in Horror" films that Coleman identifies. These implications are remedied through the use of the psychic split in Black Horror. Rather than have the protagonist be hounded by a mysterious, othered creature, the real threat to their safety is their own selves. Thus, the fear of the other is replaced with a more personal and intimate critique of the evils that exist inside us.

The concept of the psychic split, coined by literary scholar James B. Stewart, is another form of W. E. B. Du Bois's concept of double consciousness. In his book, *The Souls of Black Folk*, Du Bois first introduces his theory of "double consciousness" as a "second-sight

in this American world…this sense of looking at oneself through the eyes of others" (Chapter I). Double consciousness is something distinct to the African American experience, according to Du Bois, in which the individual is bifurcated—a vision where they are cognizant of their African descent and honoring those origins while simultaneously having to integrate into a society that is based upon their subjugation. James B. Stewart remarks that double consciousness is often replicated in the short fiction of Du Bois in the form of a mental split "between competing cultural dictates as a result of the encounter with the West" (93). As he explains, people of African descent are accustomed to cultural values that emphasize community and togetherness but are challenged by Western ideals of individualism. Thus, we see how the Black experience is naturally dichotomous; black people are split between the expectations of the dominant culture versus honoring their livelihoods and traditions.

In the case of *Beloved* and *Us*, this naturally dichotomous Black experience manifests in the form of splitting or doubling, where the other self symbolizes some form of intergenerational trauma. When looking at double consciousness, Stewart advises that scholars be mindful of three specific qualities: "the extent to which 'double consciousness' provides blacks with vantage points unavailable to nonblacks and whether this unique

vision exists universally among blacks, the nature and strength of the cultural ties that bind blacks together, and the process by which the liberation of the psyche of blacks is achieved" (93). In other words, we must pay attention to the advantages double consciousness provides to black folk, how a sense of community is made amongst black folk, and how one can fuse their warring ideals.

Returning to Stewart's first point, critics such as Ryan Poll have noted the advantage of double consciousness when looking at black characters in the horror genre. He states that these characters possess a "sixth sense" in which they are cognizant of the dangers of the other because of their dual sight and therefore are not susceptible to the antagonist (69). Coleman echoes this by remarking that Black Horror texts allow Black people to be portrayed as being "resistant to evil," further implying their distinct advantages (10). In this way, black horror protagonists are able to recognize the dangers of the other because they are constantly conscious of how they are viewed in society. Thus, both protagonists in *Beloved* and *Us* can recognize or naturalize the existence of a haunting spirit because they are naturally split. Further, to Stewart's second point, because protagonists in both *Beloved* and *Us* experience a physical split alongside their psychic split, the mirrored other not only threatens their individual safety but the

safety of their families as well, pointing to the importance of community when encountering the split. Finally, the split is mended not through cohesion but instead through the domination of a singular side. The protagonist must kill their other self in order to achieve psychic wholeness and ultimately overcome their traumatic past.

Close Analysis of *Beloved*

Unlike most other horror texts that focus on one specific genre, Morrison utilizes supernatural elements to enhance a work of historical fiction. The novel follows a woman named Sethe who currently lives with her children and mother-in-law in Cincinnati, Ohio after escaping their old plantation, Sweet Home. One day, slave catchers attempt to return the family to the plantation, and Sethe takes it upon herself to slaughter her four children in a murder-suidide to avoid recapture. However, she is caught after killing only her eldest, infant daughter and is imprisoned. The story takes place eighteen years after this incident, now following Sethe and her youngest daughter, Denver, as the ghost of the slain baby, named Beloved, haunts the home and later becomes resurrected in a physical body.

Because of her young age, Beloved's actions as a spirit are more mischievous than dastardly. Sethe's sons,

Howard and Buglar, are perturbed enough by Beloved's abilities that they decide to run away despite the innocuous nature of her crimes—with "merely looking in a mirror [causing it to shatter]" being the signal for Buglar, while "tiny handprints [appearing] in the cake" being the last straw for Howard (3). Beloved affirms Coleman's assessment of horror texts—disrupting the everyday lives of the household through her mischief. Her ghostly presence is threatening enough to cause Paul D, Sethe's lover, to banish Beloved from the home; however, the remaining members of the household do not question the validity of their rationality. They are not frightened by her existence, but rather are concerned with laying her to rest.

Sethe continuously talks about "making [her decision to kill Beloved] clear" to her and showing Beloved how "powerful" her love is (4). In other words, Sethe's desire to explain herself and her reasoning for killing Beloved mitigates any fears she has towards the ghost, thus naturalizing its presence. This naturalization is also expressed by Baby Suggs, who explains that "Not a house in the country ain't packed to its rafters with some dead Negro's grief" when the suggestion to move is proposed (5). Beloved disrupts the status quo of the home, but none of the women in the home are affected by it. Instead, they attribute her existence to a natural progression from death to spirit.

For Baby Suggs, Beloved is part of a larger trauma of unsettled ghosts in the Black community—brought on by their untimely deaths either during slavery or in the wake of racist uprisings. Sethe's primary reason for killing Beloved is because she was going to be recaptured under fugitive slave law, an event that traumatizes not only Sethe but the town at large. Morrison comments on this unprocessed trauma through the slain baby's spectral form but does not limit that commentary to just the experiences of the family. Beloved's spirit is part of something greater, a result of the racialized violence that has and will continue to plague this country. She is not just indicative of the personal grievances of the household members, but part of a larger trauma experienced within the U.S. that the family has come to know intimately.

What is most integral to both *Beloved* and *Us* is the social commentaries that draw on and subvert some of the expectations of the horror genre. For *Beloved*, scholars have talked extensively about the different techniques Morrison uses to communicate her protagonists' suffering. Florian Bast looks at the use of color in the text and how it showcases the psychological effects of slavery, similar to how figurative language would in most other texts. Indeed, Bast notes that characters start off in a state of voicelessness, which is "marked by a significant loss of the characters' ability to

express themselves and their trauma" (1072). From there, the text communicates their trauma through the color red. This effect is achieved by first codifying the color in different memories of trauma—like the red in a rooster's comb while Paul D is at Sweet Home, or Beloved's blood staining Sethe—then functioning as a transitional piece to repress the memories of slavery—such as the red ribbon that Stamp Paid carries from the little girl who died in a race riot—before finally being consumed and redistributed through the character of Denver, as she retells these traumatic stories to Beloved. Through this, Bast argues, "the novel performs the inability to use everyday language to portray a traumatic event" and "chooses to merge the voicelessness of individuals . . . with the forced silencing of blacks in slavery" (1082).

Morrison pulls on realistic portrayals of trauma by having her characters unable to communicate their traumatic memories and converts this into an extended metaphor that reflects the voicelessness of enslaved peoples. In other words, the characters' silence not only speaks to their trauma but also to a larger intergenerational trauma felt by enslaved Africans and their descendants. Sethe is voiceless because she cannot bring herself to describe her reasoning for killing her baby *and* because she was forced into silence by the constraints of enslavement.

Morrison's handling of enslavement is masterful in that she does not need to intimately describe its abuses—just as the characters are unable to—for the feeling to come across. Even though the story follows Sethe years after her escape from Sweet Home, we still see the memories of Sweet Home seamlessly bleed into the text. In this way, the protagonists and the readers question the "validity of rationality," but not because of the specific horrors that they are encountering. The readers do not need to question the existence of Beloved as a ghost because the text has already assured them that this process is natural. Rather, they are left to question how Sethe can truly be free when the memories of her abuse during enslavement still haunt her to this day. By setting the story in 1873, a little bit after the end of slavery and further positioning the protagonists as freed slaves, Morrison forces her readers to confront conceptions of what freedom can mean when race and racism still echo even now.

The doubled self is another crucial component to *Beloved* and *Us*, not only showcasing the bifurcation integral to the Black experience but also furthering the rejection of the "monstrous other" by having the line between villain and victim become blurred. Lynda Koolish argues that Beloved is not just "a fractured aspect of Sethe's psyche" but also "a kind of doppelganger for [the other characters'] own feelings of

loss, grief, confusion, and rage" (171). In other words, Beloved exists as a shadow version of the self, meant to hold the traumatic memories of all the other characters which they themselves cannot handle. For example, Paul D remarks the ghost to be evil when he first encounters it, meanwhile Denver describes the ghost as being "lonely and rebuked," similar to how Sethe describes it as "sad . . . not evil" though she further labels it as mad (172). Each character projects their own feelings onto Beloved—Paul D has extensive trauma from Sweet Home and thus associates Beloved with that evil; Denver is forced to leave school after learning her mother killed her older sister and is left with a lonely childhood; Sethe is mournful for the loss of her eldest daughter, but does not regret her decision. Further, each character has an intimate relationship with Beloved that inevitably comes to haunt them. Paul D begins to have sex with Beloved to the point that he goes mad, Denver tells stories to Beloved and becomes unhealthily protective, and Sethe's love for Beloved causes her to assume that Beloved consented to her murder and thus removes her daughter's autonomy.

Despite each character's intense relationship with Beloved, it is Beloved's attachment to Sethe that is most crucial when considering the use of horror genre conventions in the text. Horror texts are expected to "transgress and violate boundaries," which Morrison

achieves through the ambiguity in the psychic split. Because Sethe and Beloved are doubled instead of split, the two mirror each other and begin to occupy one another's role as mother and daughter.

Sethe conceptualizes her children as extensions of herself; she continuously calls them her "best thing" and laments on the fact that Beloved's death took this away from her, functioning as a pseudo-suicide. When describing her experience upon Schoolteacher's arrival, the narration says that Sethe "Collected every bit of life she had made, all the parts of her that were precious and fine and beautiful" (191). Considering that the only things she brought with her were all her children, it becomes evident how much they define her existence. After losing only one of her four children, Sethe is unable to see colors, similar to Baby Suggs on her deathbed. She cannot bring herself to acknowledge any colors, unable to comprehend the colors of dawn nor the fruit she uses when making pies at her job—"It was as though one day she saw the red baby blood, another day the pink gravestone chips, and that was the last of it" (47). The only time that Baby Suggs can perceive color again is in death, and Sethe finds herself in a similar fate when Beloved is killed at the novel's end. In other words, Beloved's death causes Sethe to lose a part of herself, which in turn leads to her own slow demise.

Further, Beloved refers to Sethe "stealing her face" and that her resurrection was to retrieve her face back (253). She speaks in terms of "we" and "us," when referring to Sethe, and even remarks that "[Sethe] is the laugh and [Beloved] is the laughter" (255). Not only does Sethe see Beloved as an integral part of herself, but Beloved feels the same about Sethe. The two seem to complete each other, which is later reflected in Beloved's final appearance where the two women effectively switch places. Morrison writes, "Beloved bending over Sethe looked the mother, Sethe the teething child, for other than those times when Beloved needed her, Sethe confined herself to a corner chair" (294). It becomes obvious that the two are now occupying each other's position, with Beloved acting as the mother and Sethe, the daughter. The two are so invested in one another that they become the other, further blurring the line of who is who.

Beloved and Sethe are intrinsically tied to one another not just through blood relation, but also as reflections of each other, similar to doppelgangers. Thus, because there can only be one mother and one daughter, the two cannot fuse for psychic wholeness. Instead, only one side of the split can survive, which leads to Sethe having to kill her daughter a second time so that she can start her life again. In other words, cohesion is

impossible and therefore Sethe must kill Beloved, and thus overcome her past trauma, to become whole.

Close Analysis of *Us*

Unlike how the family in *Beloved* is hyper aware of Beloved's existence as a ghost, the characters in the 2019 film *Us* are mostly unaware of their doppelgangers living below them. The film looks at the story of Adelaide Wilson, a young woman on vacation with her family at Santa Cruz Beach. While there, a series of strange coincidences start to trigger Adelaide as she recalls the time she met her tethered as a young girl at the same beach. The tethered are doppelgangers of every individual in the U.S., living in underground abandoned facilities. Inevitably, the tethered decide to come up from underground and kill their counterparts so that they can live on the surface, placing the Wilson's lives in danger.

While writing on the conventions of horror, Ryan Poll notes that part of the genre's success comes from the fact that "White people fundamentally imagine the world without horror," whereas Black people "are constantly vigilant for signifiers of [horror]" (69). It is not just the ignorance of the protagonist that drives the horror narrative but rather that this ignorance derives from a place of privilege. This privilege forbids white protagonists from imagining horror entering their homes,

while black protagonists—seasoned by the atrocities of slavery and racism—would be hyper aware of the existence of some form of horror. This is evident in *Beloved*, where the horror is naturalized and embedded in the history of the story, but *Us* pushes against this by placing the black characters in a position where they can afford to ignore the horrors surrounding them, thus contradicting Poll's argument.

Rather than the ignorance of the protagonist being defined by race, it is the intersection of various social factors that creates this sort of response. This is evidenced through the character of Gabe, who is continuously seen attempting to mimic his wealthier, white friend Josh Tyler—from purchasing a boat in response to Josh's yacht to complaining about not having a backup generator. Both the Wilsons and the Tylers can afford a beach house in the Santa Cruz area, but while the Wilsons' home is a relic from Adelaide's grandmother, the Tylers can afford an expensive home with a modern design. The two are mirrored in family structure, but are disparate in all other factors, not the least of which is race.

Thus, Peele appeals to conventional horror tropes where a quintessential, relatively wealthy family consisting of two parents, a son, and a daughter is in danger, but he creates a subversion of this trope by having the characters be black. Because the Wilsons

mimic the Tylers, they also take on their ignorance to danger in the form of a class critique rather than a racial criticism. In other words, the Wilsons are so embedded into their life of assimilation into the middle class that they cannot recognize the threat of the tethered beneath them until they physically erupt from underground to wreak havoc.

Notably, Peele is no stranger to scathing critiques of the United States. Indeed, his freshman film *Get Out* was an examination of how race and racism function in a post-Obama United States. In 2019, with the advent of Donald Trump's presidency and the rise of violent anti-black attacks, Peele once again positions his audience to examine the U.S. and the cause of its ever-growing division. Countless critics have picked up on this critique in the film *Us*—Manhola Dargis of *The New York Times* remarks how Peele "tethers the past to the present" by connecting the Reagan presidency and its false promises to the failings of the Trump presidency. Kinitra D. Brooks furthers this in her article for *Elle*, writing how the film not only looks at America's failures under the Trump presidency, but that the use of the doppelganger forces the viewer to ask themselves what it means to be American by having us look in the mirror and point the finger at ourselves.

It is not just that Peele is connecting the past to the present using the 80s as the film's initial setting, but

he is also looking at America's past on a much grander scale. Peele himself has stated that "we are a nation . . . that fears the other . . . and maybe we are our own worst enemy" (Peele qtd. in Brooks). The fear of the other, seemingly integral to the horror genre, is rejected by Peele as he asserts that the other is not an outside invader but in fact can be found inside our own nation. The tethered are not alien monsters, nor are they foreign, they are human just like us—"eyes, teeth, hands, blood."

Early in the film, when the Wilson's are driving to Santa Cruz, Zora interrupts the silence in the car to note how "there's fluoride in the water that *the government* uses to control our minds" (20:31, my emphasis). In the original statement by Zora, the government is used as an ambiguous figure. She does not specify whether it's the president or a specific section of the government, but instead uses metonymy and thus creates a veneer of comfort. The government can be conceptualized as this foreign entity, something that functions outside of the control of the American people.

Though the line is inconsequential, and the family swiftly moves on from it, the placement of it and its framing become much more poignant when Red later explains that she believes the tethered were once used to control the aboveground people (1:36:24). However, rather than the government as an entity, Red emphasizes that it was fellow humans who built the facilities and

created the tethered. She strips away the veneer that Zora previously created and forces Adelaide, and the viewer, to reevaluate themselves. These are not monsters or strangers lurking in the dark; the only descriptor that Red can provide is that they are fellow humans. The horror comes from the fact that this was something done by Americans to Americans—a massacre caused by their own kind. Peele does not allow the viewer to be comforted by the fictitious nature of horror, that these unknown monsters exist outside of our homes. The validity of rationality, the assumption that the divide in the country is caused by institutional entities beyond our control, is torn away to reveal the humans that head these institutions. These atrocities are done by people who look like us, even our own selves.

While the self is portrayed as our greatest enemy throughout the film, the psychic and physical split is still complicated. At the end of the film, it is revealed to us that the Adelaide we originally encountered was the tethered counterpart while Red was the original Adelaide. The girls switched places after their first encounter in childhood, hence why Red is the only tethered who can communicate with the humans. There are hints of this throughout the film, such as Red's claim that "If it weren't for [Adelaide], I never would've danced at all," implying that if it weren't for their switch, then Adelaide would have never taken up dancing as a

form of therapy, and therefore the tethered would have never danced (1:41:16). In Red's first monologue to the family, she tells the story of the tethered life through the analogy of "the girl and the shadow." She describes the different ways they were treated, with the girl receiving warm food and soft toys, while the shadow received raw rabbit and sharp toys (44:42 – 47:23). What is striking here is that the analogy functions with Adelaide being the girl and Red being the shadow, when the reality is that Red was originally the girl and Adelaide the shadow. The two start to blur the lines of who is who, making the viewer even more shocked when the switch is revealed.

Just as Adelaide must take on Red's original role of being an aboveground person, Red takes on Adelaide's role of being a tethered. Neither girl can separate themselves from these new roles because they are so ingrained into their personal history. In the final confrontation between Adelaide and Red, it crosscuts between the two during a ballet recital. In both instances, the girls' faces are obscured and only the costumes and lighting distinguish their spaces (1:35:51 – 1:47:50). Despite this, the crosscutting does not easily allow us to identify who is who. There are times where the movements of the aboveground dancer align with Adelaide and the tethered dancer with Red, but there are also moments where the two cannot be easily

distinguished. Though we can see the physical disparity between the two—with the fluid movements of the aboveground dancer basking in the white spotlight compared to the grotesque and uncanny movements of the tethered dancer in the dim under dwellings—we are thematically shown that the girls are more similar than they might appear. Both girls have fully immersed themselves into the existence of the other—truly tethered as two bodies with one split soul as Red describes it. Once again, we see how cohesion is denied for the two characters. Because they are physical doppelgangers, with one soul between the two of them, only one can live to possess it. Thus, Adelaide must kill Red to claim the soul for herself and become a full person.

Dargis of *The New York Times* claims that *Us* was at times clunky in its handling of subjects, suggesting that there were perhaps too many themes in one film. She contends that, while Peele is ambitious, "he also feels like an artist who has been waiting a very long time to say a great deal, and here he steps on, and muddles, his material, including in a fight that dilutes even Nyong'o's [Adelaide/Red's actress] best efforts." Rather than the fight feeling cluttered or unorganized, Peele's depictions of Adelaide and Red point to the violation of boundaries that is integral to the horror genre. Even though both women have striking disparities in regard to speech and superficial appearance, the two

are still mirrors of each other to a degree that they cannot be distinguished.

This ambiguity serves not only to emphasize the split but also to illustrate the blurring of their individual roles as victim and villain. Adelaide stole Red's original life and claimed it for herself, forcing Red to experience the harsh treatments that Adeliade was previously exposed to as the tethered. Yet, considering the horrifying experiences that occur underground, the counterargument follows that the tethered should have a right to escape her mistreatment.

A similar effect is noted in *Beloved.* Though Sethe is the protagonist and Beloved is the antagonist, the dichotomy becomes troubled when realizing that Sethe is the one that killed Beloved in the first place. One of the core issues in the novel is the morality of Sethe's decision: is it justified that Beloved chooses to seek revenge on Sethe, and more importantly, was it justified for Sethe to kill her baby to avoid being captured? The boundaries of good versus evil are tainted as the villain and victim cannot easily be identified, meaning it is of less importance whether the viewer aligns themselves with the protagonist or the antagonist. Rather, each author crafts their horror around a lack of narrative closure.

In most other horror texts, narrative closure is rejected by disrupting the status quo. By the end of a horror text, the protagonist can no longer return to their previous status at the beginning of the story. While the same is true for both *Us* and *Beloved*, the closure is further discouraged because the moral opposition between protagonist and antagonist is undermined. Neither text provides us with distinct victims and villains, and instead leaves us to wonder whether those terms matter at all. Is Sethe the victim and Beloved the villain? Does Adelaide deserve pity while Red should be punished? Rather than answer these questions specifically, these texts instead contend that only one body can survive regardless of who is good and who is evil. Regardless of whether Sethe or Adelaide are truly morally righteous, they must kill their other selves in order to become whole. Even though the black experience is inherently dichotomous, the solution is not to bring both sides together. Instead, the Black Horror genre tells us that the only way to overcome this split is through killing the self that holds us back and thus overcoming the trauma that lingers within us.

Conclusion

When defining the distinction between "Blacks in Horror" films and "Black Horror" films, Coleman states

that "Blacks in Horror" films illustrate "[Blackness's] proximity to interpretations of what is horrifying and where it is embodied" (6). Conversely, I argue that "Black Horror" films, and by extension the Black Horror genre, shows us that the proximity between Blackness and horror can be reflective and purposeful, as opposed to associating Blackness with evil.

In these texts, we find that the Black experience, rather than the Black body, is the site of horror, which lends to alleviating depictions of Black grief and suffering from being in the context of history. In mainstream media, we either find ourselves following the story of Black historical figures or we follow fictitious Black characters that are engaging with history. In the process, this retraumatizes and alienates Black audiences as they are forced to relive events that they have experienced or witnessed as they happened. Because horror texts are primarily supposed to create a sense of fear in audiences and defamiliarize them from aspects of popular culture they have grown accustomed to, the Black Horror genre grants writers like Morrison and Peele the ability to express the horrors of Blackness in a way that all can feel without the need to ground itself in reality. It is a universal fear brought on by deeply personal intergenerational traumatic experiences and thus creates a more poignant commentary on race and racism.

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⚜

Investigating the Use of Cannabis or Cannabinoids in the Management of Cancer Symptoms and Treatment of Induced Side Effects

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Abstract

The plant *Cannabis sativa L.* has been used as an herbal remedy for centuries and is the major source of phytocannabinoids. The endocannabinoid system (ECS) consists of receptors, endogenous ligands, and metabolizing enzymes that are thought to play a critical role in various physiological and pathological processes. Cannabis has the potential to modulate some of the most prevalent and debilitating symptoms of cancers and its treatments, including nausea and vomiting, loss of appetite, and pain. However, there is an insufficiency of scientific evidence for the effectiveness of cannabis in treating these symptoms in patients afflicted by the dismal disease. The scarcity of information poses a challenge to oncologists in discussing the option of implementing medical marijuana in patients' treatment regimens. As more states approve marijuana use for medical indications, it is pivotal for healthcare providers to understand the implications of the drug. Herein, this paper seeks to review the history, variations of

cannabinoid compounds, the endocannabinoid system and its relationship with cancer pain, the anti-cancer potentials of cannabis, and some of the concerns physicians may have about marijuana use in cancer patients. The clinical application of cannabis or cannabinoids is proposed in this paper as a therapeutic technique that, according to strong evidence, can lessen several cancer chemotherapy-related side effects and aid in cancer management.

While Marijuana, also known as cannabis, has been cultivated since the Stone Age and is the earliest non-food-bearing plant grown by humans, the historical use of medical cannabis dates to as early as 2700 BC (Sawtelle et al., 2021). There is a long, rich, and documented history of humans using cannabis across ancient civilizations for its medicinal, calming, and sedative effects (Sexton et al., 2021). Cannabis contains more than 400 compounds, with more than 80 from the cannabinoid class, although there is a variety of intermediates that can be cultivated biosynthetically throughout the flowering cycle of the plant (Sexton et al., 2021). There are two main active ingredients; Δ^9-tetrahydrocannabinol (THC) is a psychoactive cannabinoid and cannabinol (CBC) is a non-psychoactive cannabinoid found in abundance in nondrug-type cannabis (Sexton et al., 2021). The endocannabinoid system (ECS) consists of receptors, endogenous ligands (endocannabinoids), and metabolizing enzymes, and plays a critical role in several physiological and pathological processes (Daris et al., 2018). Given these characteristics, cannabinoids can interact with the components of the ECS or other cellular pathways and thus affect the development and progression of multiple diseases. As medical marijuana becomes legal in more states, cancer patients are becoming increasingly interested in the potential utility of the ancient herb in their treatment regimen. Cannabis

and cannabinoids are being accessed and used by patients with advanced cancer to alleviate the symptoms associated with the dismal disease and to promote overall better quality of life and well-being. The drug is primarily a part of palliative care, and the specific symptoms of pain, nausea and vomiting, loss of appetite and cachexia, anxiety, sleep disturbance, and medical trauma are among the myriad of ailments that have prompted cancer patients to seek out cannabis (Caffarel et al., 2006). Although these patients are eager to implement cannabis use into their daily regimen, oncologists and primary providers often lack the adequate information necessary to assist them. These healthcare professionals are dismayed by the lack of published literature on the benefits of medical cannabis. Herein, this paper will investigate emerging research that has demonstrated the anticancer effects of plant-derived and synthetic cannabinoids in addition to their new and emerging role in cancer management.

Overview of Cannabis and Cannabinoids and Their Role in Cancer Management
History of Use and Compound Variations

The first discovered and most important source of cannabinoids was the plant *Cannabis sativa L.*, which has been used as an herbal remedy for several centuries.

The earliest evidence of cannabis medical use dates to the Han Dynasty in ancient China, where it was employed to alleviate rheumatic pain, constipation, and malaria among other conditions (Daris et al., 2018). The plant was also highly cultivated in other countries in Asia as well as in Europe. Cannabis was recognized as a medicine in the United States Pharmacopeia from 1851, in the form of tinctures, extracts, and resins. However, its use significantly decreased due to recreational drug abuse potential and variability in the quality of herbal material (Daris et al., 2018). While legal restrictions led to the removal of cannabis from the American Pharmacopeia and categorized it as an illicit drug, in recent years, cannabinoids have been studied for their potential anticancer effects and symptom management in cancer patients.

The first study to describe the antineoplastic activity of cannabinoids was published in 1975 and suggested the potential antitumor activity of plant derived or Phyto cannabinoids (Darris et al., 2018). Over the last two decades, cannabis has been re-installed as a useful substance for medicinal and adult-use throughout most of the nation, with medical marijuana available in 37 states and recreational cannabis in 18 states and the District of Columbia (Abrams, 2022). Cancer is the main indication for cannabis use in most states allowing the use for qualifying medical conditions and oncologists

generally support its use in both adults and children facing dismal diagnoses (Abrams, 2022). The National Academies of Sciences, Engineering, and Medicine report on the Health Effects of Cannabis and Cannabinoids concluded that the strongest evidence for therapeutic benefit was for the use of cannabinoids in the treatment of chemotherapy-induced nausea and vomiting (National Academies Press, 2017). This led to the synthesis, licensing, and approval of the main psychoactive component of the plant, Δ^9-tetrahydrocannabinol (THC), in 1986 (Abrams, 2022).

Despite the medicinal benefits of medical marijuana, the botanical still maintains its federal status as a Schedule I substance under the Controlled Substances Act, meaning that the drug has a high potential for abuse and no currently accepted medical use for treatment in the United States. (DEA, 2022). The only legal source of cannabis for clinical research is the National Institute on Drug Abuse despite the wide array of available products that can be obtained at sites selling cannabis in states where it is legal (Stith et al., 2016). Cancer patients are increasingly turning to the use of medical cannabis predominantly for symptom management, most commonly during the phase of active treatment (Do et al., 2021). Recent cannabis use in patients with a myriad of malignant diagnoses can range from 18% to 40% based on several surveys conducted in

the United States, Canada, and Israel (Do et al., 2021). Given the widespread use of cannabis among cancer patients, it is imperative for oncologists and primary care providers to be well-informed about cannabis therapy and the variations available for use.

The *Cannabis sativa* plant contains over 400 different chemical compounds (National Cancer Institute, 2021). Over 100 of these are 21-carbon terpene phenolic cannabinoids (Russo et al., 2011). Δ^9-tetrahydrocannabinol or THC is the primary active ingredient and psychoactive cannabinoid. THC is a highly lipid-soluble, high-affinity, partial agonist at cannabinoid receptor types 1 and 2 (CB_1 and CB_2) that mimics the endogenous cannabinoids anandamide and 2-arachidonoyl glycerol and is responsible for behavioral effects (Sexton et al., 2021). At particularly low doses, THC has analgesic (pain reducing), anxiolytic (anxiety reducing), and anti-inflammatory (inflammation reducing) effects, whereas higher doses have opposite effects on anxiety and analgesia. THC was studied in Israeli children aged 3-13 years with various hematologic cancers receiving chemotherapy and was found to be an effective antiemetic (Abrahamov et al., 1995). Ultimately, the ingestion of THC in small quantities of edible oil (18 mg/m^2) prevented the children completely from experiencing vomiting which usually occurs more than 24 hours after treatment and

lasts for a few days after the cessation of chemotherapy. The oral administration of THC oil was continued every six hours for 24 hours and negligible side effects were observed.

In the current era of isolating individual cannabinoids for potential therapeutic benefits, Δ^9-tetrahydrocannabinol is popular with questionable legal status as it is psychoactive (Johnson-Arbor et al., 2021). Cannabinol (CBD) has become the most favored cannabinoid as it is felt not to be psychoactive but to have various therapeutic benefits, although none have been particularly well documented in randomized controlled trials (Pisanti et al., 2017). CBD is a low-affinity, non-psychoactive cannabinoid found in abundance in nondrug-type cannabis and is reported to bestow inverse agonist or antagonist action at CB_1 and CB_2 receptors or act as an allosteric modulator (Sexton et al., 2021). Although studies supporting the analgesic effects of CBD in humans are scarce, high doses are reported to have anticonvulsant, sedative, anxiolytic, and anti-inflammatory activity.

In addition to naturally occurring cannabinoid sources, Dronabinol and Nabilone are Δ^9-tetrahydrocannabinol medications that have been licensed and approved for the treatment of chemotherapy-induced nausea and vomiting since 1986 (Sallan et al., 1975). Nabiximol is a whole plant extract

that contains a THC: CBD ratio of 1:1 and is licensed and approved around the globe besides the United States (Sallan et al., 1975).

The Endocannabinoid System and Cancer Pain

Endocannabinoids interact with different types of receptors, including the two G-coupled CB receptors, CB_1 and CB_2. Generally, G-coupled receptors mediate senses such as odor, taste, vision, and pain. Additionally, cell recognition and communication processes often involve these receptors. CB_1 is distributed widely throughout the peripheral and central nervous systems and is responsible for the psychoactive effects of THC. Activation of the primary afferent peripheral terminal CB_1 receptors that carry information from sensory receptors to the central nervous system (i.e., brain and spinal cord) can reduce terminal excitability and proinflammatory terminal peptide release (Sexton et al., 2021). CB_2 receptors are located primarily in the immune tissues of peripheral monocytes, B and T cells, and mast cells (Sexton et al., 2021). Agonism at CB_2 reduces inflammatory cell mediator release and sensitization of afferent terminals. Therefore, in the context of pain, peripheral CB_1, and CB_2 receptor agonist results in a combined additive reduction. This is critical for alleviating pain associated with cancer which

tends to arise in multiple sites. Through the activation of the cannabinoid receptors by THC and other pharmacological mechanisms of CBD, cannabis may be beneficial in helping manage certain symptoms and side effects associated with cancer treatment.

Cancer-related pain is among the most prevalent, undertreated, and most complex to treat symptoms in cancer patients. While the biological role of ECS in cancer pathophysiology is not completely clear, most research suggests that there is a tumor-suppressive role of ECS related to the up regulation of endocannabinoid-degrading enzymes in aggressive human cancers and cancer cell lines (Daris et al., 2018). Elevated levels of the CB_1 receptor are found in areas of the brain that modulate nociceptive or pain processing in the nervous system (Vuckovic et al., 2018). As concluded in the National Academies of Sciences, Engineering, and Medicine report, some of the strongest evidence for the therapeutic effects of cannabis is in the relief of pain (National Academies Press, 2017). Neuropathic pain, pain caused by disease of the somatosensory nervous system, particularly HIV-related peripheral neuropathy, has been most investigated and appears to be quite responsive (Abrams et al., 2022). Peripheral neuropathy refers to several conditions that involve damage to the peripheral nervous system and other parts of the body. Given the promising results of the study, cannabis could

provide equal relief to those afflicted by cancer. Research has also demonstrated that cannabinoids are not only effective in the treatment of rodent models of chemotherapy-induced peripheral neuropathy but, in some situations, they also have been shown to abort its development (Rahn et al., 2007). For instance, an observational study conducted in Israeli cancer patients who had received at least two cycles of chemotherapy including 5-fluorouracil and oxaliplatin demonstrated that grade 2-3 peripheral neuropathy developed in 15.3% of the cannabis exposed patients compared to 27.9% of the control (Rahn et al., 2007). The protective effect was more pronounced among those who used cannabis first (75%). Although these findings are of lesser strength than those obtained from a randomized, prospective study, these are evidence of potential therapeutic benefit.

Opiates are widely used analgesics in cancer patients. To understand the pharmacokinetic interaction of cannabis, Abrams et al el. investigated the effect of adding vaporized cannabis to the treatment regimens of patients maintained on stable doses of morphine or oxycodone. Although there were no effects on the plasma opiate levels after inhaling vaporized 3.5% THC for three days, improved analgesia was detected (Abrams et al., 2011). Additionally, experimental studies have illustrated that the activation of CB receptors by cannabinoids is antitumorigenic in most cases serving to

counteract the formation of malignant tumors. For instance, the activation can inhibit tumor cell proliferation, induce apoptosis (programmed cell death) *in vivo*, and block angiogenesis (the development of new blood vessels) and tumor invasion/metastasis *in vivo* (Daris et al., 2018).

*C*annabis As an Anti-Cancer Agent

Increasing evidence from *in vitro* studies and animal models has illustrated the anti-tumoral activity that cannabis and cannabinoids may have. One of the earliest reports published in the Journal of the National Cancer Institute was from Virginia Commonwealth University investigators who found that Δ^9-tetrahydrocannabinol and cannabinol all inhibited Lewis's lung adenocarcinoma cells *in vitro* and mice (Munson et al., 1975). Since the publication of this early report, several studies investigating the anti-cancer effects of cannabis and cannabinoids have been conducted in Europe, and increasingly, in Israel. For instance, multiple tumor cell lines have been inhibited *in vitro* and cannabinoid administration to nude mice has significantly decreased the growth of tumor xenografts, models of cancer where the tissue or cells from a patient's tumor are implanted into an immunodeficient mouse like gliomas, lymphoma, melanoma, and lung,

breast, colorectal, and pancreatic carcinomas (Velasco et al., 2004). Cannabinoids have direct tumor-killing effects by complexing with the CB_1 receptor. This interaction results in autophagy, the cellular degradation of unnecessary or dysfunctional components, and increased apoptosis (Velasco et al., 2004). Furthermore, cannabinoids can inhibit vascular endothelial growth factors, thereby impairing angiogenesis and decreasing tumor viability. *In vitro* studies also revealed that cannabinoids inhibit the enzyme matrix metalloproteinase-2 which allows cancer cells to become invasive and metastasize (Velasco et al., 2004). Thus, preclinical evidence suggests that cannabinoids may inhibit tumor growth and proliferation by employing various mechanisms.

When the ECS is targeted, it can signal a cascade of several essential cellular processes and signaling pathways that are pivotal for tumor progression. For instance, they can induce cell cycle arrest, promote apoptosis, and inhibit tumor cellular proliferation, migration, and angiogenesis (Daris et al., 2018). Different types of cannabinoids may exert different modes of action. The Phyto cannabinoid THC promotes apoptosis in a CB-receptor-dependent manner, while CBD exerts this effect independently of CB_1/CB_2 receptors and possibly includes the activation of TRPV2 receptors in certain cancer types (Darris et al., 2018).

These receptors play a critical role in neuronal development, cardiac function, immunity, and cancer. The expression of CB_1 and CB_2 receptors on immune cells suggests their important role in the regulation of the immune system. Administration of THC into mice induces apoptosis in T cells and dendritic cells which results in immunosuppression (Daris et al., 2018). Therefore, studies suggest that cannabinoids can suppress inflammatory responses by down regulating cytokine and chemokine production and up regulating T-regulatory cells. Both cytokines and chemokines regulate and determine the nature of immune responses such as increased inflammation. Moreover, cannabinoids modulate mitogen-activated protein kinases and the phosphatidylinositol 3-kinase/Akt survival pathway, which have a prominent role in the control of cell growth and differentiation (Caffarel et al., 2006). For example, endogenous cannabinoid anandamide arrests the cell cycle of hepatoma $HepG_2$ cells, epidermal growth factor-stimulated PC_3 prostate cancer cells, and the breast cancer cell line EFM-19 at the G_1-S transition preventing the spread and growth of these cancerous cells (Caffarel et al., 2006).

Oncologists' Concerns About Cannabis Use in Cancer Patients

       With cannabis use becoming widespread, a random survey was sent to 400 US oncologists (Braun et al., 2018). Of the respondents, 80% reported that they were open to discussing cannabis use with their patients; for 78% these discussions were patient-initiated. Approximately two-thirds of the oncologists felt that cannabis was a useful adjuvant for pain and anorexia/cachexia, however, only 46% ever recommended it clinically (Braun et al., 2018). The results of the study could reflect some of the concerns that oncologists may have involving cannabis use by cancer patients. The concept of inhaling a combusted chemical can raise worries. The National Academies of Sciences, Engineering, and Medicine report concluded that there was moderate evidence of no statistical association between cannabis smoking and the threat of lung, head, or neck cancers (National Academies Press, 2017). While some isolated reports have suggested that smoking cannabis can increase both tobacco-related malignancies, the analysis of the published literature fails to support such observations. Pulmonary aspergillosis, a disease that results from hyper-sensitivity to Aspergillus antigens, is another common concern that worries oncologists. The first case was reported by the National Institutes of Health (NIH) and since then

several case reports have been published (Chusid et al., 1975).

THC and CBD may both have shared implications on the metabolism of other pharmaceuticals, particularly, in cytochrome p450 interactions such as hormone synthesis and breakdown, cholesterol synthesis, and vitamin D metabolism (Kocis et al., 2020). However, scarce pharmacokinetic interaction studies have been investigated to provide any significant conclusions. Given CBD's potent nature as an inhibitor, its many isoforms (similar forms), when used in highly concentrated CBD oils, can potentially inhibit the metabolism of conventional therapies which may increase toxicity (Kocis et al., 2020). Therefore, oncologists should caution their patients about this occurrence (Ward et al., 2021).

In general, medical marijuana is considered safe and well-tolerated (Bar-Lev et al., 2018). To investigate the medical and evidence-based alignment of medical cannabis and cancer treatment, a study consisting of 2,970 cancer patients was conducted and found that 30% of patients reported at least one side effect from medical marijuana at 6 months of usage, however, the side effects were relatively minor consisting of dizziness, dry mouth, increased appetite, sleepiness, and some psychoactive effects (Bar-Lev et al., 2018). Typically, adverse effects are related primarily to THC and are

dose-dependent (Dell et al., 2021). THC given to patients with CBD simultaneously reduces psychoactive side effects and other general symptoms such as fatigue or tachycardia (Dell et al., 2021). These after-effects are often avoidable when the starting dose is low and titrated slowly; especially since the titration process is critical for decreasing the incidence of psychoactive side effects (Dell et al., 2021).

In summary, substantial evidence demonstrates that cannabinoid-based treatment strategies may help to mitigate various cancer chemotherapy-associated adverse effects. While there is no "magic bullet", side-effect-free treatment, clinical, pain, and oncology specialists need to actively assess if these approaches offer safe and effective intervention options for those afflicted by this malignant disease. Despite preclinical evidence and social media claims, the utility of cannabis, cannabinoids, or cannabis-based medicines in the treatment of cancer remains to be convincingly demonstrated. Given its acceptable safety profile, cannabis may be useful in managing symptoms related to cancer or its treatment. Further clinical trials are necessary to evaluate whether the preclinical antitumor effects translate into a benefit for cancer patients. As more tumors are assayed for actionable mutations, the routine assaying of specimens for CB_1 and CB_2 expression may prove to be useful in understanding their

relationship to disease progression and therapy response. Additionally, more research should be conducted to investigate the impact of cannabis-based treatments on malignant and rare tumors. By that same token, oncologists and primary care providers should familiarize themselves with the available evidence and data to better advise their patients on the potential uses of this complementary plant-based therapy and should investigate more pharmacokinetic information on highly concentrated preparations of cannabis or cannabinoids on conventional cancer treatments. As always, supplementary research and education are always warranted to ensure a greater understanding of this versatile drug and how its derivative compounds may benefit those with cancer or a broader population of patients seeking relief from their ailments.

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