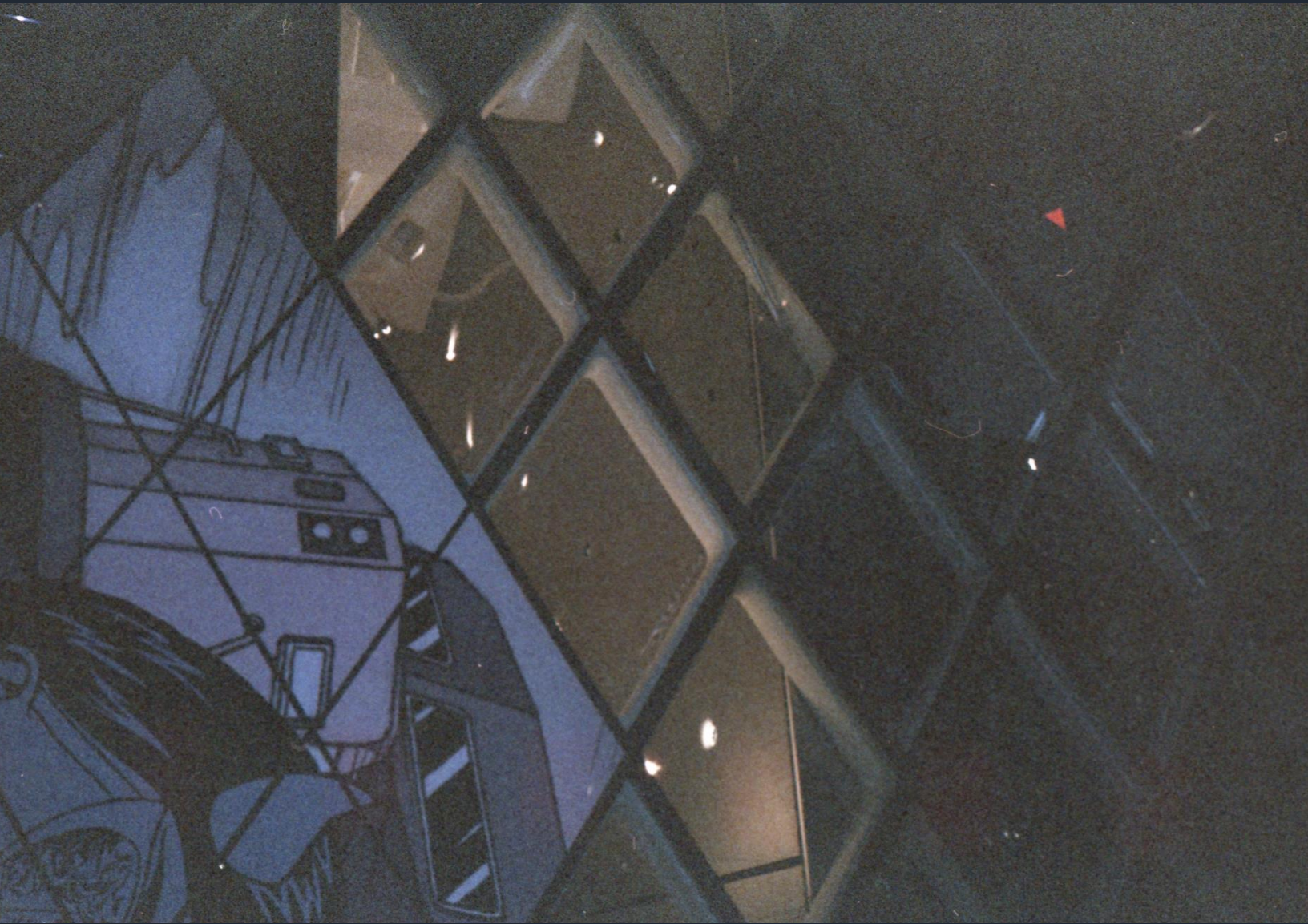


# Journal of Integrative Research & Reflection



Volume II: Spring 2019



# Journal of Integrative Research & Reflection

Volume 2 | Spring 2019

**Editors-in-Chief** *Hannah Anderson*  
*Kaitlin Ollivier-Gooch*

**Editorial Board** *Maryam Mughal*  
*Yousuf Ramahi*

**Managing Editors** *Meredith Poirier*  
*Bailey Gardien*  
*Erin Hogan*  
*Payton Mikrogianakis*  
*Zoë Lawrence*  
*Gillian Belcher*  
*Lindsay Williams*

The Journal of Integrative Research & Reflection (JIRR) is a free undergraduate student journal published by the Department of Knowledge Integration at the University of Waterloo. The copyright of all contributions remains with their authors. All else, ©2019 JIRR.

ISSN: 2561-8024

journal.IRR@outlook.com | jirr.ca

University of Waterloo, 200 University Avenue W, Waterloo, ON N2L 2G1

## Reviewers

*Anderson, Jillian*     *Dunn, Findley*     *Kennedy, Eric*     *Power, Aidan*  
*Batliner, Brendan*   *Gronsdahl, Sophie*     *Luo, Sunny*     *Prasad, Divya*  
*Belcher, Gillian*     *Gerrits, Matthew*     *Manning, Karissa*     *Poirier, Meredith*  
*Brain, Katrina*     *Gitt, Morgan*     *Mansz, Jasmine*     *Joseph, Cheryl*  
*Buhrmann, Anna*     *Gregoris, Rachael*     *Pearce, Alex*     *Sabourin, Ethan*  
*Buller, Lucy*     *Grove, Monica*     *Mikrogianakis, Payton*     *Schoneveld, Kuil*  
*Kawano, Luna*     *Hogan, Erin*     *Miller, Benjamin*     *Shi, Victoria*  
*Clubine, Andrew*     *Williams, Spencer*     *Nordemann, Emily*     *Williams, Lindsay*  
*Collinson, Hannah*

Cover art was submitted by Shalaka Jadhav. Shalaka spent her childhood between cities in India and the United Arab Emirates, before moving to the GTA. She is wrapping up her degree in urban planning at the University of Waterloo, and is looking forward to graduate studies in curatorial work at the University of Winnipeg in the fall. As a twice-over immigrant, Shalaka is interested in pursuing questions around value relating to power and authority, primarily how they play out in space and place. When she isn't studying the menus of local restaurants, she can be found plugged into a podcast or angry about climate change.

The photograph was taken in Tokyo's Ginza district, known for being one of the most luxurious streets in the world thanks to the gleaming shopping promenades. Choosing to capture it as the daytime dims allows for a slowness to sneak into place, which is the kind of cheeky subversion of place that Shalaka enjoys in a place.

We acknowledge that we work and learn on the traditional territory of the Attawandaron (Neutral), Anishnaabeg, and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, land promised and given to Six Nations, which includes six miles on each side of the Grand River.



# Building

What does it mean to build a cross-disciplinary academic community? This is a question the editorial teams at the *Journal of Integrative Research & Reflection* (JIRR) has been striving to address and answer since our start two-and-a-half years ago. From the beginning, the aim to foster a unique cross-disciplinary academic community has been a central part of the journal's mandate. The process of trying to fulfill this goal has been one of collective self-discovery and reflection for the organization and the individuals involved in it.

JIRR began as a way to increase the access undergraduate students have to peer-review and publishing opportunities for cross-disciplinary work. By slowly creating a space for authors and reviewers to practice cross-disciplinary peer-review, we have seen a community grow. With one successful issue out, an efflux of old editors, influx of new, and an entirely new call for submissions, this past year has continued to build on the community initiated by the first issue. By trusting the peer-review and editorial processes, the JIRR community has seemingly built itself.

During the peer-review process of our second issue, the enthusiasm of the individuals involved became increasingly evident. Our group of 33 reviewers was comprised of people who had reviewed for JIRR previously and others who were new to the journal or peer review itself. This year, the call for submissions produced a unique pool of submissions in a number of forms, including written articles, multimedia, and creative writing pieces. The growth seen this year demonstrates the importance of providing space for cross-disciplinary undergraduate academic inquiry.

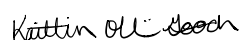
Over the past year, the JIRR team has realized that our role is not in *making* the community. Rather, JIRR acts to facilitate the growth of the undergraduate cross-disciplinary community by bringing people together. For the editorial team of JIRR, this is what it means to help build a community of cross-disciplinarians.

Welcome to the second issue of the *Journal of Integrative Research & Reflection*. This issue represents a theme of “building” – building community, building knowledge, building a narrative through creativity, and building on past experiences within JIRR. By bringing together authors, reviewers, editors, and readers of varying disciplinary backgrounds, JIRR has become a kaleidoscopic community of knowledge. As a reader, we welcome you to our growing group of cross-disciplinarians.

Sincerely,



Hannah Anderson (Co-Editor in Chief)



Kaitlin Ollivier-Gooch (Co-Editor in Chief)

JIRR gratefully acknowledges the support of the Department of Knowledge Integration in the production of JIRR. Speacial thanks to Rob Gorbet and to Katie Plaisance for their mentorship and guidance. JIRR also thanks William Kirk Roy and Jordan Hale for helping us to navigate the peer review and publishing process. Finally, thank you to Bronwyn McIlroy-Young for her support throughout the entire process.

# Contents

## Welcome

*Hannah Anderson & Kaitlin Ollivier-Gooch* ..... 4

## December 15th: Poetry as an Integrative Outlet

*Gillian Belcher* ..... 7-13

## Shedding Light on Colorism: How the Colonial Fabrication of Colorism Impacts the Lives of African American Women

*Adeola Egbeyemi* ..... 14-25

## Artificial Mental Representation and Creative Pursuit

*Kwil Schoneveld* ..... 26-38

## Using Locative Media to Enrich Spaces with Historical Artifacts

*Aidan Power* ..... 39-47

## The Silencing of LGBTQ Older Adults' Identities through Ageing in Long-Term Care

*Shauna Wallace* ..... 48-57

## Governmentality: A Theoretical Evaluation of Supervised Injection Sites and Consequent Police Practices

*Benjamin Scher* ..... 58-69

## Confronting the Obvious: An Epistemological Examination of the Evidence Informing Evidence-Based Medicine

*Dinesh Moro* ..... 70-80

## A White, Jewish, Rap-Infused Desire for Blackness: David Burd's Lil Dicky

*Ethan Sabourin* ..... 80-88

## Alone and Anxious: Addiction to Work as an Adaptation to Postmodern Dislocation

*Anna Buhrmann* ..... 89-96

## Values as the Bridge over Troubled Disciplinary Waters

*Ellen Taylor* ..... 97-104

## December 15th: Poetry as an Integrative Outlet

Gillian Belcher

---

December 15<sup>th</sup>

Cold water  
washes  
over my face.  
My skin  
seeps down the drain.

I scratch  
at my neck  
as the temperature  
rises,  
leaving red marks  
carved into the shell  
that embodies  
my pain.

I fold over  
to let my back  
burn  
in the heat.  
Tears  
become  
*lost*  
in streams

that brush cheeks.

I wash my face  
in cold blood,  
until it bleeds  
clean—  
Rising tides  
of regret  
form  
as water pools  
at my feet.

I dry off my body.

I remember him  
on me.

I get back  
in the shower,

again.



I remember writing this poem. With each word that touched the paper, a weight lifted from my tired shoulders. Burdens I had been blind to carrying left without saying goodbye. I watched the ignorance that once consumed me as a child walk away from my battered body. I wrote several pieces that I thought reflected times in my life where I began to truly understand what it meant to *feel*: to feel pain; sadness; happiness; emptiness. These words are an honest representation of what I internalized for so long. I saw how disgusted I was with myself and my choices. How isolated I felt by the thought that I wasn't, and still am not in control of everything I experience. Through writing this poem, I took a moment that was weighing on my shoulders and gave it away to artistic freedom. This moment may have been a difficult part of my reality, but it was still a part of my story: it was an honest part of myself I could not forget, but one that I could redefine. Poetry helped me rewrite these moments and how they shaped me.

I use poetry as an outlet to express feelings derived from experiences that are powerful enough to prevail on the page. Within a poem, moments of one's life can be presented with enough ambiguity that many interpretations can come from even the simplest stanzas. If crafted carefully, each word can create a mirror accustomed to its reader allowing them to see themselves and their own story in a unique manner. At the same time poetry can account for every breath taken with astonishing specificity, eliciting emotions through every detail. Poetry achieves both specificity and ambiguity through figurative language, otherwise known as

"imagery" (Oliver, 92). Figurative language uses the same words we speak every day but arranges them in ways that differ greatly from how they are used in typical conversations.

Metaphors are a great example through which writers can create imagery. They allow abstract concepts to be explained in a concrete but creative way. For example, in my poem, *December 15th*, the overarching metaphor of physically trying to cleanse a body in the shower mirrors the attempt to remove disgust, shame and regret I had. The latter concepts are abstract emotions and hard to picture, but specific and detailed phrases like "rising tides of regret" allow readers to produce visual images associated with the abstractions conveyed. Using detailed language like "my skin seeps down the drain" allows a vivid picture to arise and elicit emotion (which in this case may be fear due to the line's eeriness) in each reader's mind before making inferences about the phrase. At the same time, the metaphor is ambiguous enough that readers can derive different meanings based on their own interpretations. I intended for the poem to reflect self-inflicted punishment due to regret, as well as the inability to remove the feeling of shame and disgust. However, I understand that another reader could infer that this poem reflects a persona losing innocence or changing dramatically with phrases like, "my skin seeps down the drain" and "I wash my face in cold blood until it bleeds clean", suggesting physical removal of "the old self". An interpretation besides the one I intended isn't wrong, it is the beauty of poetry's ambiguity. I think a poem means whatever its reader *needs* it to. Therefore, figurative

language such as through metaphor can allow for specificity that elicits detailed imagery while simultaneously necessitating ambiguity in meaning.

Figurative language is not the only aspect of the passage (above) that makes it different from say, how I am writing in this reflection. *December 15th* sounds as if it has rhythm and rhyme. I demonstrate the use of both slant rhymes and alliteration to achieve this sense of musicality. True rhymes exist between words like “pot” and “hot” (Oliver, 53). Slant rhymes are words that almost rhyme but are not true rhyming words (Oliver, 53). In my poem I demonstrate slant rhymes with words like “face” and “drain” in the first verse, as well as “body” and “on me” in the fifth verse. I also use alliteration; this is when there is “repetition of the initial sound of words in a line or lines of verse” (Oliver 29). For example, in the following verse, “*I fold over/to let my back/burn/in the heat/Tears/become/lost/in streams/that brush cheeks*”, I repeat the [b] sound multiple times. Both alliteration and rhyming “brightens the language and helps to hold the reader in thrall” (Oliver, 29).

Above I have only touched upon a few of the many language devices used to create a poetic piece, but they are significant devices I use the most. The aspect that is more difficult to convey is idea generation and the integration between lived experiences and language devices. Collaboration does not only exist between yourself and those who surround you. I believe poetry is derived from the undervalued but important collaboration of various forms of knowledge that exist within a singular mind. Of course, your

individual experiences come from interactions between yourself and the world; however, my existence, and experiences within it, contribute to knowledge that I have privileged access to. Poetry is about taking your internal interpretations and feelings about each life experience and combining them with knowledge about poetic language devices.

These internalized experiences and feelings can be accessed via writing prompts which can be discovered (through the internet/peers/professors etc.) or created on your own. In writing the poem *December 15th*, I used 2 prompts provided by my creative writing professor: “think of someone you haven’t talked to in a while and discuss why” and “record, in detail, the nature of your surroundings using all five senses”. The first prompt initiated written discussion about how I felt hurt, both physically and mentally, by the person who elicited the feelings represented in this poem. Since it was raining on the day I wrote in response to the second prompt, I went outside and sat on my balcony to record detailed information about the state of my surroundings using all five senses. When I attempted to put these two very different descriptions together I found myself writing about the events of December 15th in a different way. I was reminded of the shower I took when I returned to my apartment that morning and what that shower, and the many that followed, represented for me. What seemed to be emphasized in my written responses to each prompt was the desire to “become clean” when feeling (literally and metaphorically) “dirty”. On paper, I could see how hurt this persona was and I realized this persona was me. However, I discovered that the feelings I had weren’t derived

from hurt inflicted by another person (anymore) but shame and disgust I was still inflicting upon myself. Picking a starting point (prompt) and writing down ideas as they came, allowed me to refrain from processing, thinking about, or judging them.

Using prompts, whether they are about describing your surroundings or pulling on past emotions, can lead to revealing deeply personal information, and therefore, inspiration: this is because mental groupings of objects and events with certain commonalities, or concepts, are closely connected with sensory experiences and other concepts thought to be unrelated (Ormerod & Jones, 33; Hamilton, 221). For example, seeing a butterfly can lead to thinking about swimming simply because the butterfly is a type of stroke and our mind quickly and often makes these concept connections unconsciously (Ormerod & Jones, 33). Therefore, if specific concepts were present in a memory, related stimuli in one's external environment can trigger these memories if connected to the mental objects/events in the remembered scenario. Our senses contribute to making these connections and triggering involuntary retrieval of certain memories, especially our sense of smell (Hamilton, 221-223). That is why when using any prompt that involves describing surroundings (past or present) it is a good idea to do so in terms of your five senses. Something as simple as the concept of rain specifically, how it feels, looks, smells, sounds etc., can easily trigger past experiences to come to the forefront of one's mind through relatedness with other concepts: rain is water that falls

from above and a shower replicates this event therefore, rain triggers the concept of shower through perceptual relatedness. This is especially true when combined with more explicitly personal prompts that encourage making these connections. The combination of prompts allowed for a more creative interpretation of my story rather than a straightforward discussion of events. As indicated above, describing my surroundings lead to developing a metaphor that could represent my feelings towards what I experienced on *December 15th*.

Writing reveals a secret that has burdened you and poetic language devices ensure that your truth is exposed in an encrypted and beautiful way. I believe that with poetry you can push boundaries of spoken and written language that everyday conversation can only scratches the surface of. However, poetry goes beyond the knowledge of language devices and creative writing techniques. As shown above, every time you respond to a writing prompt you risk reliving past events that have caused a variety of emotions both positive and negative. Therefore, it requires vulnerability and bravery in order to relive memories that have haunted you, as shown with the process of writing *December 15th*. Poetry requires the internal collaboration of language devices and creative writing techniques with the internal representation of one's lived experiences, and the emotions each of these moments have caused. Different ways of knowing can be found within yourself, and when combined can set you free.

#### AUTHOR BIOGRAPHY

Gillian Belcher is enrolled in the Knowledge Integration program at the University of Waterloo. Her academic interests include English, Philosophy and Psychology. The goal of this piece was to integrate concepts across these disciplines to advocate for the importance of mental health and women's rights. Her program provides expertise in interdisciplinarity, allowing her to use creative writing skills to express psychological states and reflect upon this process. She wanted to tell her story in order to connect with and encourage others to do the same. Gillian wants to ensure that artistic, creative freedom does not get lost in academia.

## WORKS CITED

Oliver, Mary. *A Poetry Handbook*. Harcourt Brace & Company, 1994.

Hamilton, Paula. "The Proust Effect: Oral History and the Senses." *The Oxford Handbook of Oral History*. Ed. Donald A. Ritchie. Oxford University Press, 2010, pp. 219–232.

Ormrod, Jeanne Ellis, and Brett D. Jones. "Learning, Cognition, and Memory." *Essentials of Educational Psychology: Big Ideas to Guide Effective Teaching*. 5th ed., Pearson, 2018, pp. 20-61.

## Shedding Light on Colorism: How the Colonial Fabrication of Colorism Impacts the Lives of African American Women

Adeola Egbeyemi

---

**D**IFFERENT individuals define the start of summer by different moments. It may be the joyous completion of final exams for one or the excitement of packing for vacation for another. Even the change of one's outfit into billowing tops and high-waisted denim shorts might signify the beginning of the hottest season of the year. However, the start of my summer is typically linked to one comment: "Don't get too dark."

This is as overt as the statement gets. In my life, it is the unspoken statements which are the most prevalent. From the African beauty shops downtown that slip lightening creams into your final purchase, to cosmetic foundations tailored to lighter shades, examples of internal and external prejudice against individuals with a darker skin tone are ubiquitous. This manifestation of prejudice is termed colorism, first coined by African American novelist and civil rights activist Alice Walker as the "prejudicial or prefer-

ential treatment of same-race people based solely on their colour" (290).

Although the phenomenon of colorism is pervasive, meaningful discussion of its impact has been historically neglected. In the novel *Same Family, Different Colors*, dark-skinned professor, author, and journalist Lori L. Tharps identifies that the lack of open discussion on colorism is common in households where seemingly "more significant" issues take precedence. Black families often aim to keep the focus on racism, an issue the whole family would face as opposed to the additional inequality faced by specific darker-skinned members (Tharps 38). This same lack of discussion frequently applies beyond the familial sphere. Therefore, it is necessary to allow the analysis of colorism to have the same academic priority as is given to the analysis of other inequalities, such as racism. Considering this, I argue that the colonial fabrication of colorism is pervasive and not only does it impact the aes-

thetic perception of African American women, but it also determines their socio-economic status and life outcomes.

I hold this position as, firstly, colorism is often seen as a divisive issue within the African American community in the United States, pitting dark-skinned peoples against the lighter-skinned members of their own race. These interactions and definitions fail to include the historical context: specifically, how colorism's fabrication was systemically enforced and ingrained within the Black community through white colonial ideals perpetuated during the Atlantic slave trade. Understanding America's history of colonialism and slavery is essential to understanding colorism in African American communities. It then follows that the unpacking of the historical context of colorism's creation is crucial to the exploration of this topic.

I also maintain my position since contemporary discussion of colorism between lighter-skinned and darker-skinned black women is often, yet inaccurately, boiled down to a "she's seen as pretty, and she's not" issue. Recognizing that being dark-skinned is another socio-economic disadvantage — in addition to being African American and being a woman — is crucial to understanding the impact of colorism on the life of a dark-skinned African American woman.

For this paper, I conducted a secondary data analysis of essays and novels written primarily by African American female academics. This coupling is an example of integrative knowledge

derived from the mix of both lived experiences and academia. Black women wrote many of the sources used in this research about black women, providing a research base rich in situated knowledge. When scouring for sources, I did not actively seek the specific social location of "dark-skinned African American female" author; however, once identified as such, it was given greater weight within this paper. Using sources that featured firsthand knowledge of the physical and mental experiences of living as a dark-skinned woman proved to be useful. These authors' experiences yielded direct, viable knowledge and insights in addition to their research and studies, resulting in more profound observations; third-parties may know these states only by interpreting visible symptoms or learning from testimonies.

This essay integrates history and human sciences by unpacking the slave-buyer mentality from the Atlantic slave trade and the resulting African American woman's life from that era onward.

## I: COLORISM FROM THE COLONIAL ERA TO THE 20TH CENTURY

Colonialism within the 'New World'<sup>1</sup> played an instrumental role in engineering the American preference for those with white or light black skin. The enslavement and systematic oppression of dark-skinned individuals perpetrated this preference. African American law professor Kimberly Jade Norwood distinguishes that although "slavery was not invented in the New World...", it became so deeply associated

<sup>1</sup>New World is placed within quotations because although European colonizers saw the Americas as a new addition to the world, it would be incognizant to not acknowledge the longevity and richness of culture that existed long before discovery.

with dark skin that "...it was almost impossible to separate the two" (592). It is essential to recognize that slavery existed long before the enslavement of African peoples, but that the effects of slavery in America almost inextricably linked black skin to slave status. When the colonial empire was faced with an agricultural "need for a controllable and cheap labour force" for the likes of tobacco harvesting or cotton picking, slavery laws were passed, and the dehumanization of enslaved Africans began (Norwood 592). It is important to note that in the early years of American slavery, enslaved Africans in the Virginia and Carolina colonies could be freed if they followed specific regulations, such as conversion to Christianity. This loophole was eliminated after 1667, firmly ingraining the legal status of enslaved Africans to their skin colour (Norwood 592). By the late 17th century, "white skin came to be synonymous with freedom and black skin with slavery" and, therefore, skin tone played a clear role within the emergence of a hot, new, and profitable business: the slave market (Norwood 592).

According to American historian and African studies professor Walter Johnson in the novel *Soul by Soul: Life Inside the Antebellum Slave Market*, a savvy slave buyer knew to "...look past the fancy clothes, bright faces, and promising futures" (137) of enslaved Africans lined up before buyers. In fact, buyers knew nothing "as to the character and disposition" of the enslaved and could "...only judge the looks of the Negroes" (138). Thus, the looks of the enslaved provided all the evidence deemed necessary to infer how a slave would behave. It would logically follow that skin colour would be the first visual marker of these projected qualities.

The discrepancy of black skin colour in America first arose when sexual unions began between enslaved African women and their white male captors. These unions produced children who were preferred by white society over their darker-skinned brethren. The various and specific words slave buyers used for lighter skin colour were 'mulatto', a dated term for an individual of mixed black and white ancestry, 'quadroon', for an individual who was one-quarter black, 'octoroon', one-eighth, and so forth (Johnson 138). These terms indicate the importance that buyers placed on skin colour, especially since the categories of skin tone in the United States census at the time were limited to 'black' and 'mulatto' (Johnson 138).

In the Antebellum South, "a disproportionate amount of light-skinned women" (Johnson 151) were chosen for the role of domestic servants. A slave trader's 1859 letter claiming "the girls are brownskin and good house girls" (Johnson 157) gives an example to how light skin tones were valued. Skin colour is referred to first, and the claim that they are "good house girls" follows from this physical marking. Johnson notes that the bodies of light-skinned women were frequently referred to as 'delicate' by slaveholders. These women, delicate due to the "whiteness" in their blood, were deemed "ill-suited for the daily rigours [demanded] of dark-skinned women" (Johnson 152) and their high rates of placement in domestic roles followed from this. In the minds of slave buyers, there existed a strong association between the colour of one's skin and the type of service to which they were suited. In addition to the perceived outer delicacy and inner intelligence, the "racial



gaze” (Johnson 155) of the slaveholder added value to the body of light-skinned women for sale. In a recorded description of an enslaved woman by the name of Mildred Ann Jackson: “. . . she was about thirty. . . her colour was that of a quadroon; very good figure, she was rather tall and slim. . . had a mole on her upper lip. Her hair was straight,” (Johnson 155), one saw buyers directly buying predominately white features such as ‘straight hair.’ The ‘hybrid whiteness’ of such enslaved people was first assessed by traders and then inferred into meanings of delicacy, beauty, intelligence — what was mere “dreamy interpretations of the meaningfulness of [the buyer’s own] skin colour” (Johnson 155). Women described as such went for high prices in the market, indicating that light skin was an indication of social status in white slave buying communities, and thus in the general Caucasian population, before it was in Black communities. However, this skin tone stratification became complicated as White communities began to fear that light-skinned black women were threatening the primacy of pure whiteness. This complexity kept light-skinned black woman contained within the enslaved Black community.

These fundamental dynamics of lighter-skinned and darker-skinned women remained distinct even after the physical liberation of enslaved African Americans in the Civil War. According to African American anthropologist and sociologist, Margaret Hunter, individual freedoms that white slave owners gave to enslaved lighter-skinned Africans, such as “the occasional opportunity to learn to read, and the rare chance for manumission” (Hunter 239), led to the creation of a small, elite class of freedmen. These “disproportionately light-skinned

men and women were the early clergy leaders, business people, teachers, and artisans who became economic and community leaders in the early African American community” (Hunter 239). This disproportionality was seen in the education of black individuals in the late 1880s, when in the District of Washington, for example, sixty percent of ‘mulatto’ heads of households could read, whereas only twenty percent of black heads of households could assert the same (Kerr 277). The influx of liberated black individuals into neighbourhoods created highly impoverished environments, as they rarely had enough money or education to survive. The well-educated ‘mulattos’ were able to withdraw from these ‘darker classes’ because of their education (Hunter 239).

This attempt by light-skinned black individuals to move into white spaces gave rise to the first social complexion tests, detailed by African American literature professor Audrey E. Kerr. These tests were “racial confrontations by whites to keep fair blacks from ‘passing’ into white organizations, institutions and even white families” (Kerr 277). In the late 19th and early 20th century, these tests involved the examination of phenotypic qualities, such as nail beds, where black blood was claimed to be “evidenced by a purplish semicircle on the nail beds of a person of colour” (Kerr 277). Other tests included an examination of hair roots for the “telltale kink in the fair hair” (Kerr 278). This initial testing served as a reminder to light-skinned or white-passing African Americans that any indication or hint of blackness was enough to deny them access into places of higher status.

Moving to the 1920s, spotting’ tests were

the second form of testing that “solicited the assistance of blacks to identify members of the Black community who were passing into White communities” (Kerr 278). These black men and women were placed outside of white establishments to spot black people, especially mixed-race people who might be hard to differentiate. At this time, it became clear that colorism had been internalized in some ways; testing was done by some African American people to keep others of the same race out.

The final form these complexion tests took was random testing, often known as the ‘paper bag test.’ During African American gatherings at bars, churches, or parties deemed as paper bag events, one had to be lighter than the bag to get in. Kerr offers an insightful testimony from a New Orleans interviewee. The interviewee distinguishes that no physical comparisons between a woman’s skin and a paper bag were made in order to enter a party (283). Instead, if you came inside as a dark-skinned woman, the interviewee claims, no men would dance with you, people would stare — it would be like crashing the party (283). They state that “it was understood that it was a brown bag party. In the culture, you just knew it” (Kerr 282). Numerous accounts of similar sentiments paint a picture of the complete internalization of colorism by the Black community. Within Black community events, there became an explicit, internalized status quo where lighter-skinned people were preferred. This divide has continued to the present day.

Through this timeline, colorism has been unpacked as an elitist ideal not only created by the non-marginalized but also ingrained into the

ideals of the marginalized. With the background for the colonial creation of this preference for lighter skin colour, we can see how deep-rooted colorism is within the African American community, as it is a legacy of the colonial past.

## II: COLORISM IN BEAUTY AND SOCIOECONOMIC STATUS

Colorism has been able to influence many spheres of life through the significant presence of technology and media in today’s society. Within the sphere of media representation, according to African American author Sharon Bramlett-Solomon’s book on *Race, Gender, Class and Media*, “lighter-skinned black women are represented in all forms of advertising (store advertisements, magazines, billboards) and television (as news anchors, love interests, commercial models)” (Norwood 594). In Hollywood, the preference for light-skinned women of colour is evident, as it is rare to find a dark-skinned woman in a positive leading role or as a love interest. Consider Zoe Saldana, the ‘café au lait’ coloured actress who was cast to play Nina Simone in *Nina* (Norwood 594). For the film, dark makeup was applied daily so light-skinned Saldana could look more like the dark-skinned Nina Simone. This example perpetuates the current notion that lighter skinned black women will always be the default for the silver screen, to the point of putting in extra effort to make them seem dark-skinned. What is crucial to observe is that this example is within the same ongoing system of white dominance. In the case of the movie *Nina*, the director, casting director, makeup and prosthetic artists, and all producers except two were white. It is thus understandable, or at least unsurprising, that persons in positions of power

— often Caucasian and male — select these images in these examples, demonstrating the same colonial dynamic of displaying their own features of whiteness.

Norwood describes that “lighter skinned women... were [also] more likely to be featured in editorial photos and advertisements from the [19]60s through the 90s” (Fultz 19) of black-owned resources, such as *Ebony* or *Jet* magazine. Although representation in these editorials had a higher balance of dark- and light-skinned African American women, “descriptors such as ‘pretty, lovely, and beautiful’ were substantially more likely to be paired with images of lighter, more Eurocentric looking women,” (Fears 20). The internalization of colorism is thereby outlined here, in that the value of beauty for lighter-skinned African American women, created by white Americans, is now locked into the ideals of African Americans. Other spheres of African American culture, such as the music industry, display this internalization. Within African American Ph.D. candidate Lauren A. Fultz’s dissertation paper on “The Psycho-Social Impact of Colorism Among African American Women”, she discusses skin tone and media representation. Most notably in rap and R&B, Fultz discusses how music videos are more likely to contain images of “idealized African American women, who tend to have lighter skin” (19), again demonstrating how people have internalized the notion that lighter skinned women are more beautiful.

Furthermore, it is interesting to note how intertwined colorism and sexism are. The perception of light-skinned black women as more attractive also impacts how dark-skinned women date and marry. According to Fultz,

“...complexion hierarchy is more central in the lives of women than men” because society not only places high societal value on women’s beauty but also places “whiteness of skin [as a] highly valued... dimension of beauty” (20). The relationship between skin colour and judgements on attractiveness affect women most, Fultz argues, since a “woman’s worth is judged heavily on the basis of appearance” (21). Men who have money, education, and other forms of social capital, are considered prime to be in relationships with, while the first capital often considered when seeking out a relationship with a woman is physical attractiveness (Fultz 10). Fultz references Mark E. Hill, who conducted a study to determine if the perception of heterosexual attractiveness pervaded across genders in African Americans. Through his study, Hill found that skin colour was the second most reliable predictor of attractiveness to members of the opposite sex, as of the five skin tones of women shown to participants, the lightest category was rated the highest in perceived attractiveness by men (Fultz 13). Thus, in a society that has come to deem lighter skin as more attractive, darker-skinned African American women face disadvantages in the dating market. It follows that lighter-skinned African American women are more likely to have dating successes and, therefore, are more likely to be married than darker-skinned women. In a 2009 study by Darrick Hamilton, Arthur H. Goldsmith, and William Darity Jr. on “The influence of skin shade on marriage for black females,” it was found that in a multi-city survey within the United States, over twice as many light-skinned black females had been married than dark-skinned ones (Hamilton et al. 11). A connection between marriage and skin shade was drawn — as “skin shade lighten[ed] the

incidence of marriage [rose]” (Hamilton et al. 6). The colonial construction of beauty ideals places darker-skinned women at a disadvantage concerning aesthetic capital in many domains, such as representation in media and perceived attractiveness, and is connected to life outcomes, such as lower chances of marrying. This paragraph has summarized the impact of colorism on African American women’s beauty perception, but the discussion should not stop here.

As previously discussed, many enslaved African Americans with light brown complexions who had the ‘privilege’ of working as house slaves also had the opportunity to obtain minimal education. Although the institution of slavery was abolished with the Civil War, differential treatment based on skin colour persevered in America. Lighter-skinned African Americans worked in higher socioeconomic divisions than those with dark skin, due to their jumpstart in education while enslaved. As Natalie Brown, Angela Gillem, Steven Robbins, and Rebecca Lafleur state in the study “The Effect of Black Women’s Skin Tone on College Students’ Ratings of Their Employability”, “in the late 1800s, light-skinned men could receive Ph.D.s, whereas dark-skinned men could not” (3). Additionally, according to social studies professor Shannan M. Moore in “Colorism Among African-American Teachers”, “institutions of higher learning were specifically created for the ‘mulatto elite,’ and so the light-skinned class traditionally valued education,” almost with means to dissociate away from the ‘illiterate blacks’ and merge closer to the ‘educated whites’ (52). The existence of separate schools based on black skin tone, in which “even the curricula differed: ‘mulattoes’ were exposed to a broader liberal arts curricu-

lum while darker-skinned blacks received the lower-paying vocational education tracks” (Norwood 600). This separation funnelled newly freed dark-skinned African American individuals into working, blue-collar jobs. This dynamic remains presently, where skin tone affects the socioeconomic status of dark-skinned African American women (Mathews 10).

Light complexions are more readily tied to traits of intelligence and skills because of colonial history. This means, as African American political science Ph.D. student Tayler J. Mathews explains in “The relationship between skin complexion and social outcomes,” that dark-skinned black women are regarded in opposition and “placed into stereotypical categories such as lazy or incompetent” (Mathews 11). These associations may be able to explain why there are a disproportionate number of light-skinned African American women in corporate positions compared to darker-skinned women.

The ‘similar-to-me’ effect is one example of how skin colour stratification is perpetuated. As with slave buyers looking for their own features in the black women they purchased, in corporate America, “light complexions translate as ‘racially similar to whites’ and therefore, white people may be more comfortable accepting light shades of African American women and less comfortable with darker African American women” (Brown et al. 9). Dark-skinned individuals are often claimed to induce feelings of unease, triggering discriminatory attitudes toward dark-skinned women in every aspect of work — from the hiring process to promotional options (Brown et al. 10). Another factor weighing into the difficulty faced by dark-skinned women

within corporate life is the “what is beautiful is good” effect. This effect links attractiveness to other positive characteristics, such as higher economic and education outcomes (Brown et al. 10). A study by Maddox and Grey that found that “...Black and White college students gave more positive stereotypes (i.e. attractiveness and intellect) to light-skinned compared to dark-skinned women” (Brown et al. 10). Applying this to the workplace, the highlighted attractiveness given to lighter-skinned African American women would grant them more opportunity throughout corporate life. Thus, Norwood asserts that the treatment of dark-skinned African American women occupationally is worse, perhaps “explaining [...] the gap in employment between women with light and dark skin complexions” (12). According to Verna M. Keith and Cedric Herring’s study “Skin Tone and Stratification in the Black Community,” there is about a “17.5 percentage difference in the employment rate between black women of very dark tones and very light shades” (Keith and Herring 764). According to Brown et al.’s study, “Regardless of race, men who evaluated [a] light-skinned [female] applicant indicated a greater likelihood of hiring her than...the dark-skinned applicant” (22).

Skin complexion also affects the socio-economic dynamic of relationships. Study after study has shown that “light-skinned African American women marry spouses with [either] higher levels of education, higher incomes, or higher levels of occupational prestige than their darker-skinned counterparts” (Hunter 247). This phenomenon essentially allows light-skinned African American women to utilize the high status of their skin tone to obtain a high

status of education, income, or occupation and marry to a similar socio-economic status, propelling light-skinned couples into greater socioeconomic success than darker-skinned black women (Hunter 237). The preference for light-skinned women over dark-skinned women is wholly sewn into the American ideological fabric, intersecting with class and social status, and assessing it as a superficial beauty issue contained within places like Hollywood is facile.

### III: COLORISM IN THE 21ST CENTURY

In this present day, we acknowledge biased media and beauty perceptions more often, and the exclusionary circle of what may be deemed beautiful is now widening to let dark-skinned black women fit into it. Now, outcry and criticism bombard cosmetic brands with foundation lines that do not cater to darker skin tones. The Lupitas and Kekes of Hollywood are present just as much as the Amandlas and Zendayas. But does this change reach the broader spheres of media, or is it merely a current, fading social movement? Can this shift even begin to reach the created socio-economic gap between light- and dark-skinned women? A study on “Skin Tones in Magazine Advertising” by Donna T. Mayo, Charles M. Mayo, and Sharika Mahdi collected and scanned multiple *Vogue* and *Sports Illustrated* magazine covers from the late ‘90s with black women of varying skin tones. The results found that “dark-skinned and medium-skinned African Americans [were] more dominant in both fashion and sports magazines” (Mayo et al. 56). I believe this suggests a trend towards a more frequently positive representation for dark-skinned women. Additionally, a 2018 study by Srikant Devaraj, Narda R. Quigley, and Pankaj C. Patel

on “The effects of skin tone, height, and gender on earnings [in the early 2000s]” produced unexpected results that income had “no differences for women with different skin tones” (Devaraj et al. 6). It would be contentious to believe that this indicates a vanquishment of “centuries of entrenched bias and discrimination” (Devaraj et al. 18) toward darker-skinned women. Although there are “likely other mediators and/or moderators in play that should be examined in future research” (Devaraj et al. 6), this shift away from having skin tone indicate socioeconomic status and life outcomes is heartening. Nonetheless, when comparing white-owned magazines to *Ebony*, results found that the “majority of African Americans in the ads of *Ebony* had Caucasian phenotypes” (Mayo et al. 57). These results point to an unfortunate picture: even though White America may progress past the correlation of only light-skinned black women with the colonial ideals of attractiveness, it has been ingrained so deeply in the African American population that it seems more time and effort will be needed to overcome these ideals.

This essay has explored the pervasiveness of the colonial creation of colorism in the everyday lives of African American women. In order to focus on colorism’s impact on dark-skinned black women, I have not touched on the other impacts of colorism, but still feel they are important enough to be mentioned. Light-skinned women have also faced discrimination due to the value placed on skin tone. These women can experience a lack of grounding to black culture, alienation from communities, and heightened fetishization in media. The colonial impacts of tests against light-skinned women and the self-identity struggle those types of tests may

have caused are necessary and valid discussions (Kerr 278). Furthermore, colorism exists for African American men in a thoroughly unique lens. With desirable masculine traits of strength inferred upon the darker skinned men by slave buyers, a negative association persists around light-skinned men, describing them as “feminine” and has similarly profound impacts in their lives. However, with that feminine, gentle trait given to enslaved light-skinned men, there also lingers the reverse association for dark-skinned men as “barbaric” (Johnson 139). All of these implications point to the fact that the pervasiveness of colorism within all African American lives is still a beast, rearing its ugly head.

This essay has unwrapped the fabrication of colorism as an engrained phenomenon within Black communities by highlighting its colonial narrative in the slave markets. After the physical liberation of enslaved African American women, the use of racial testing established colorism within the Black community. I maintain that the impacts of colorism are far-reaching, not only in the aesthetic perception of African American women but also in education, perceived intelligence, romance, and socio-economic dynamics. However, the goal of this essay was not to provide solutions or ideas on how to fix colorism. Instead, I have chosen to stress the significance of its presence and the importance of contemporary racial conversations and research. It is both fascinating and disappointing that the study of colorism — with such profound impacts on individual African American lives — can remain in the spring beginnings of its sociological inquiry. It is not only due time to bring on the summer of this study, to shine a light on the issue and begin to untangle it from the fabric of American

society, but also to let the start of its summer be defined by boldly stepping into the sun.

#### AUTHOR BIOGRAPHY

Adeola Egbeyemi is from Ottawa, Ontario and currently attends McMaster University in Hamilton, Ontario. She wrote this paper in her Inquiry to Global Challenges class, one of the many classes in her program, Arts and Science, that she enjoyed being, well, challenged in. There must have been some sort of foundation line controversy erupting on Instagram at that time, and it clicked in her that colorism was a contemporary issue, with much untouched historical weight—and thus, research began. She thought it would be much longer before writing a back-of-the-book author biography, so she is ridiculously grateful for the work of all the editors and for this opportunity from the University of Waterloo’s Journal of Integrative Reflection and Research.

## WORKS CITED

- Brown, Natalie, et al. "The Effect of Black Women's Skin Tone on College Students' Ratings of Their Employability: A Preliminary Study." 15 Dec. 2003, pp. 1–36., [pdfs.semanticscholar.org/d22e/741cd5089403a457b27b864bda1b0e2859ad.pdf](https://pdfs.semanticscholar.org/d22e/741cd5089403a457b27b864bda1b0e2859ad.pdf).
- Bramlett, Sharon A. *Race, Gender, Class and Media: Studying Mass Communication and Multiculturalism*. Kendall Hunt Publishing Company, 2017.
- "Ebony." *Google Books*, Google, [books.google.ca/books/about/Ebony.html?id=PtMDAAAAMBAJ&redir\\_esc=y](https://books.google.ca/books/about/Ebony.html?id=PtMDAAAAMBAJ&redir_esc=y).
- Fears, L. M. Colorism of black women in news editorial photos. *The Western Journal of Black Studies*, 22(1), 30-36.
- Fultz, L. A. The Psycho-Social Impact of Colorism Among African American Women: Crossing the Divide. The School of Professional Psychology Wright State University,1-65.
- Hamilton, Darrick, et al. "Shedding 'Light' on Marriage: The Influence of Skin Shade on Marriage for Black Females." *Journal of Economic Behavior & Organization*, 6 June 2009, pp. 1–21.
- Hunter, M. The Persistent Problem of Colorism: Skin Tone, Status, and Inequality. *Sociology Compass*,2(1), 366-370. doi:10.1111/j.1751-9020.2007.00078.x
- Johnson, Walter. *Soul by Soul: Life inside the Antebellum Slave Market*. Harvard University Press, 2000.
- Keith, Verna M, and Cedric Herring. "Skin Tone and Stratification in the Black Community." *The University of Chicago Press*, vol. 97, Nov. 1991, pp. 760–778., [www.jstor.org/stable/pdf/2781783.pdf](http://www.jstor.org/stable/pdf/2781783.pdf).
- Kerr, A. E. The Paper Bag Principle: Of the Myth and the Motion of Colorism. *Journal of American Folklore*,118(469), 271-289. doi:10.1353/jaf.2005.0031.
- Mathews, T. J. The relationship between skin complexion and social outcomes: how colorism affects the lives of African-American women. *ETD Collection for AUC Robert W. Woodruff Library*, 1-85.
- Mayo, Donna T, et al. "Skin Tones in Magazine Advertising." *Journal of Promotion Management*, 22 Sept. 2008, pp. 49–58., doi:[https://doi.org/10.1300/J057v11n02\\_05](https://doi.org/10.1300/J057v11n02_05).



- Moore, Shannan M. "Colorism Among African-American Teachers: A Qualitative Study of Intra-Racial Discrimination in the Classroom." *Liberty University*, 2016, pp. 1–157
- Norwood, K. J. "If You Is White, You's Alright. . . ." Stories About Colorism in America. *Washington University Global Studies Law Review*,14(4), 585-607.
- TEDx Talks. "Confessions of a D Girl: Colorism and Global Standards of Beauty —Chika Okoro— TEDxStanford." *YouTube*, talk by Chika Okoro, 22 May. 2016, <https://www.youtube.com/watch?v=fvoWoMIwr-g>
- Tharps, L. L. *Same family, different colors: Confronting colorism in America's diverse families*. Boston: Beacon Press.
- Walker, Alice. *In Search of Our Mothers Gardens: Womanist Prose*. Open Road Integrated Media, 2011.

## Artificial Mental Representation and Creative Pursuit

Kuil Schoneveld

---

**B**UILDING artificial intelligence capable of creativity requires that the system hold, manipulate, and integrate mental representations. For this to be possible, we must include a notion of intentionality in the artificial intelligence. The 19th century psychologist Franz Brentano makes an early distinction between the physical realm and the object of the mental: this sets the groundwork for how to interpret the abstract activity of the mind. The cognitive scientist and philosopher Daniel Dennett progresses this conception to describe the *intentional stance* with which we can interpret a system's behavior. I will first situate my discussion of creativity by referring to Paul Thagard's philosophical account of it. In comparison, Margaret Boden's more psychological account lays out a hierarchy of techniques ranging from merely combining mental concepts together in new ways to manipulating the conceptual space itself. With Dennett's conception of mental structures (such as beliefs and desires) as entities that exist in

the world, we can better understand Boden's description of creative endeavors. Thus, I intend to argue that mental representation integrations are possible within artificial systems and that this strongly implies human degrees of creativity along Boden's dimensions. I will briefly discuss the English mathematician Alan Turing's vision for machine cognition and respond to Lovelace's objection to it. Following this, I present a variety of recent works which describe the bridge between neural structures and mental structures<sup>1</sup>. I will integrate this work with Boden's ideas of exploration within a conceptual space, as well as explicate how this type of creativity can be done artificially. I describe multiple examples of apparent artificial creativity and offer a modern version of Lovelace's objection and an appropriate rebuttal. I conclude by overviewing the progression from intentional mindedness to its implementation in algorithms, and argue that similar creative activities conducted by humans are capable in machines.

---

<sup>1</sup>Much of the work I overview is that of Benedek Papp, David Plaut, and Paul Smolensky (a biotechnologist, computational psychologist, and computational neuroscientist respectively).

To begin discussing creativity, we need a type of mental entity to manipulate and interpret. To accomplish this, Franz Brentano gives a seminal account of mental representation: he postulates that mental phenomena contrast the physical, because mental phenomena contain *intentional objects* toward which they are directed (Brentano, 481). He refers to this characteristic of mental content being directed at objects as *intentional inexistence* (Brentano, 481). Thus, it follows that our mental concepts and ideas are acquired through, or based upon, sensory perception. However, it is worth noting that the objects of the mental are not required to be existent in the world for them to exist as mental objects. For example, simply conceiving of Pegasus does not mean it exists in the world. Though there is some controversy surrounding the interpretation of Brentano<sup>2</sup>, I will avoid delving into his metaphysical arguments and instead focus on the relevant characteristic of minds containing mental content. On this matter, Brentano outrightly states the importance of mental representations when he says, “[the] act of presentation forms the foundation of every mental act” (Brentano, 480). Thus, to interpret and discuss mental activity, he is stating that we must consider the mental entities being held by the mind-havers. This applies to any mental activity more complex than an externalized black-box analysis; if we want to understand the mind, Brentano would argue that we must assume the mind-haver is experiencing mental representations. Further, if we realize that since intentional mental content is directed at something in the world (though its physical target is not contingently necessary), we then know that mental content is *about* something.

<sup>2</sup>Ex. Tim Crane suggests that Brentano did not think any objects of thought exist, while Gabriel Segal instead claims Brentano posited ‘intentional objects’ to sidestep the problem of thinking about non-existent objects.

More specifically, the mind can be described as an intentional system. If we understand the mind in this way, we begin to develop an account of mental conception that allows for the manipulation of mental entities. This leads us on a path toward understanding creativity and provides insight on how to replicate it artificially.

If we accept Brentano’s argument that the mind creates representations, we can now decide how to interpret them. Dennett describes a sensible means of interpreting these conceptions through what he calls the *intentional stance*. Firstly, Dennett argues that beliefs and desires are things that exist in the world. Secondly, he argues that to determine beliefs we must assume a kind of strategy that makes predictions based on the beliefs: we can then confirm their existence based on whether the predictions were accurate (Dennett, 556). Rather than rely upon any external criteria to determine whether we hold some belief, he proposes that we could determine beliefs with a sufficiently nuanced understanding of the brain states that constitute them (Dennett, 556). Thus, to argue that mental representations like beliefs are existent phenomena in the world, Dennett suggests that the answer lies within the complex patterns of the brain state that realizes it. To determine whether some system is a *believer*, we must now move to the predictive strategy. If the strategy adequately predicts a system’s behavior, that system should be considered a believer.

Following Brentano’s discussion of intentionality, Dennett says that we can better understand the behavior of certain systems using the *intentional stance*. This can be done relatively

straightforwardly. To begin, we “treat the [system] as a rational agent; then figure out what beliefs that agent ought to have, given its place in the world and its purpose” (Dennett, 558). In this way, he abstracts out much of the complexity that adds little to our understanding of the overall system. In other words, it is unnecessarily difficult to try learning what food someone prefers by mapping the interactions and positions of the particles in the person’s brain. Rather, we intuitively assume the intentional stance and verbally ask the person to determine their beliefs and desires. Dennett argues that this is especially helpful when considering what it means to have a mind, the role of the mind in agency, and what mental phenomena really are (Dennett, 561). Thus, if we are to understand the apparent patterns in this higher level of abstraction, it is sensible to assume that the system being investigated has beliefs, desires, and other mental conceptions. A similar kind of detail abstraction resulting in pattern emergence is present in artificial systems striving to imitate thought. It is therefore appropriate to attribute to these systems mental conceptions.

These mental conceptions can then be manipulated in creative ways: broadly speaking, when a system integrates and alters mental conceptions to create products that are original<sup>3</sup> and valuable to society, it is exhibiting creativity. Humans can quickly create new sentences and lines of inquiry seemingly of our own volition. This ability is one component of an artificial superintelligence; a theoretical agent whose intelligence greatly surpasses that of any human. For a system to truly *seem* intelligent, it should not just answer our questions with the knowl-

edge it has been given, rather it should be able to create answers that were not hard-coded and had no direct programmer input. An intelligent and nuanced system might answer our open-ended questions with better questions. However, rather than ask whether we can create this hypothetical system, this essay will focus on whether artificial systems can exhibit creativity as separate from their general superintelligence. With this context in mind, we can see that creative potential is necessary for this superintelligence, though it is not sufficient.

Before we judge the creative potential of a machine, we first need an account of creativity within ourselves. We must determine whether creativity is possible and what specifically constitutes it before any attempts at artificial implementation can be made. Firstly, is ‘pure’ creativity possible? Our logical intuition would say that no effect can come without a cause, and thus no creative venture can be entirely unprompted. This outlines the foundation of Alan Turing’s rebuttal to the Lady Lovelace Objection which will be discussed later in the specific context of artificial intelligence. First, I will focus on Paul Thagard’s overview of creativity to situate it and motivate its artificial implementation, then I will discuss Margaret Boden’s theory of creativity as a bridge toward understanding it as a component of artificially intelligent systems.

Thagard says that creative thinking relies upon images, which he defines as “mental representations based on sensory modalities” (Thagard, 313). He asserts that visual images in particular are responsible for the advancements made in many academic fields. If images are

---

<sup>3</sup>This is deliberately skipping over Boden’s discussion of Psychological vs Historical creativity; all discussion of originality is in the more objective historical sense.

condensed into an understanding of what each means, they can be juxtaposed and integrated together to build new images. Concepts are Thagard's idea of either more abstract, non-verbal images or images that have been combined to create a small interacting system. It follows that different concepts can be combined to create new ones which induce societal change, similarly to images but in a less verbally-specific manner. Finally, Thagard offers a description of rules which are more creatively powerful than concepts; he argues that rules are the highest form of human creativity possible. He describes rules as showing the relationship between multiple concepts. Rules can portray a complex interaction between concepts that simply is not possible within a single concept, let alone a single image (Thagard, 318). It is within rules that Thagard says we find the most socially-altering creative endeavours. Concepts were the first step away from the limitations of sensory input of images, and now rules show us the relations between these abstracted concepts. Thagard contrasts the descriptive power of rules with the normative power of what he calls, methods for procedural creativity. These methods are usually a type of rule that attempts to accomplish some goal by prescribing a series of steps. One example he gives is an interpretation of Newton's calculus; if you want to describe the notion of 'change' mathematically, use the calculus (Thagard, 322). We have seen how Thagard describes creative endeavors as both new ways of describing the world, and new ways of accomplishing goals within it. This characteristic of newness motivates why we should attempt to automate creative processes. To make advancements and solve rising problems, we need to think in new ways and generate new rules.

Margaret Boden offers an account of creative behavior that has similarities to that of Thagard but is more clearly defined as a hierarchy of categories. Boden relies upon a similar notion of concepts paralleling Thagard's. Boden's concepts are more abstract versions of images that allow them to be understood, manipulated, and integrated together. Similarly, she is relying upon the metrics of newness, value to society, and surprise. Thus, she describes all creative endeavor as being a matter of degree; all ideas may be creative, but that is not to say they are equally creative (Boden, 2). Two different creative ideas may be of completely different form as well as degree. For example, take the advent of the light bulb and compare it to cubism in painting. It could be said that the light bulb was a reimagined candlestick, but this loses much of the value of the idea of the light bulb. It is the combination of multiple concepts - like the wire, a carbonized filament to produce light, and surrounding glass - which resulted in its invention. Comparatively, the cubism movement was a general rejection of the traditional portrayals of perspective: a common theme in cubism is an attempt to emphasize the two dimensional nature of the canvas being used. Thus, there is a significant difference between these two examples. The first combines previous concepts together to create a new product, while the other comments on the very space within which it is situated. Both types of creativity are analogous to two of Boden's categories of creative thought. The three categories in her hierarchy are combinational, exploratory, and transformational creativity (Boden, 3). Each category has a quaint analogue to action within a child's sandbox, which is a common example of a creative

space.

We see that, like Thagard, Boden describes concepts as the entities to be combined in creative processes. However, Boden also describes how these concepts exist within a creative conceptual space. She asserts that a conceptual space is essentially a “structured style of thought...[or] any disciplined way of thinking that is familiar to (and valued by) a certain social group” (Boden, 4). These spaces can differ across metrics like their creative limit or the relation of the space to other spaces. For example, compare the games of tic tac toe to chess. Every possible move of tic tac toe has been played because the potential for creativity is severely limited; there can only be nine moves in a game at most. While chess has many standard openings that have been played countless times, its creative cap is far higher than that of tic tac toe, because after roughly thirty moves, most games reach a state of originality. We can see some differences among conceptual spaces and their analogues in board games. Generally, we are more interested in designing conceptual spaces with high potentials for creativity. Their results are broader in scope, more difficult to predict, and often more valuable as learning experiences. It is within these richer conceptual spaces that we can more clearly differentiate between Boden’s three categories of creativity.

First, combinational creativity involves the synthesis of new concepts from old ones to create something of value (Boden, 3). This is arguably the simplest and least effortful form, since the agent is only required to find a novel way of interlocking two concepts with which it is familiar. For our sandbox example, combinational

creativity might include stacking two differently-sized bucketful’s on top of one another to create a two-tiered sandcastle tower. One could make additions to the sandcastle to further combine concepts and alter the final product.

Boden defines the second category as exploratory creativity. She describes this form such that it appears more fundamental and impactful in its role in the conceptual space because it involves the discovery of new concepts themselves. Here, a concept has been created that is significantly different from all others in that conceptual space (Boden, 4). Exploratory creativity can therefore allow for more intricate combinational creativity. Thus, exploratory creativity is the causal antecedent because it has drastic effects on the combinations that are possible, where the reverse is not necessarily true. The new concepts may have always been possible, but they had gone unnoticed until the agent assumed an exploratory state of mind (Boden, 5). These explorations may not be very adventurous, and thus their resultant concepts will not be significantly different from the ones already obtained. If we continue with the sandbox analogy, we can imagine a child who digs in the sand using their hands to create a moat for their castle. Instead of just building, the child has now begun to dig as a means of creation. Similarly, they may no longer restrict themselves to using sand and instead make a drawbridge out of twigs. Thus, they have come up with entirely new ideas to add to their toolbox of possible concepts to employ.

Finally, transformational creativity involves acknowledging the limitations of the conceptual space itself (Boden, 5). Once acknowledged,

these limitations can be changed, avoided, or surpassed such that the individual can think in ways that were impossible while within the previous conceptual space (Boden, 6). When the assumptions and limitations of a conceptual space are realized, they themselves can become elements to manipulate for the betterment of the creative product. Transforming the bounds of one’s conceptual space allows for radical changes to be made within it: for example, the new mental conceptions of the transformed space might have been literally impossible to achieve in the old one because of its limitations. As a result, if one expands their space, the range of creative possibilities broadens accordingly. Hence why transformational creativity is the most fundamental category of the three. Like the relationship between exploratory and combinational, transformational creativity exerts a new degree of influence upon its dependent categories. It involves the manipulation of the conceptual space itself, which influences the exploratory category. With a changeable space, the concepts that can be explored and created are also subject to change. And when there are many new concepts to discover, the potential combinations change as a direct result. This chain of unidirectional dependencies defines the hierarchy of Boden’s three categories. Returning to our sandbox analogue, transformational creativity would involve transcending the bounds of the sandbox itself: imagine the child removes one of the four walls of the sandbox to reconceptualize the entire space as a desert for toy soldiers. In this case, the previously assumed boundaries of the sandbox not only limit, but also blind the agent to any alternative possibilities. Expanding

the sandbox implicitly acknowledges its previous limitations and allows the new concepts within to be of a completely different nature.

We have now seen two accounts of creativity. Thagard’s creativity has acted as a situating tool which allows us to understand the value of creativity as a component of our daily practice and lifelong pursuits. We realize that major creative junctions form the backbone of progress throughout history and we have seen his account of how creativity is achieved to create social change. Similarly, Boden describes three categorical tiers of creative thought, each more fundamental and revolutionary than the last. As we move from Thagard’s description to Boden’s more detailed conception, we ask ourselves the question: “how does this idea of creativity lead us closer to its artificial implementation?”. For this, we need even more detail and explicit notation than what Boden offers.

Though Boden argues that her conceptions of creativity are possible in machine minds, Geraint Wiggins describes these conceptions with significantly more detail. He formalizes her categories as mathematical functions to explicate their potential for application across domains. Specifically, Wiggins aims to make a coherent distinction between exploratory and transformational creativity as they relate to formalized conceptual spaces and the objects within them (Wiggins, 1). To discuss his formalization in detail would be inappropriate for the scope of this paper. However, it is worth mentioning that his attempt to give formal precision to Boden’s categories helps to translate them into artificial

---

<sup>4</sup>Though Wiggins argues that transformational creativity is a form of exploratory, I continue to use Boden’s *three* categories rather than explain the technical distinction since this would require a longer and unnecessary tangential discussion.

systems<sup>4</sup>. Wiggins acknowledges that his work is only the beginning, but his progress toward such a specific characterisation sets a strong precedent for the artificial and systematic formalization of Boden's categories. Furthermore, it spawns a range of new questions to further advance the project of artificially replicating creativity. Wiggins also mentions some new problems that his work has prompted. For example, he describes the problems of moving toward even more abstract meta-levels of the hierarchy than transformational creativity, or how the interaction of agents might influence their learning (Wiggins, 8). These questions can only benefit the progression toward artificially-conceived creativity.

To implement these notions of creativity in artificial systems, we must first describe how mental representations can be realised computationally. Traditionally, computers algorithmically operate upon data structures of information to accomplish tasks. In this case, the data structures act as the mental representations which are processed by their task-specific algorithms. In contrast, more modern approaches to artificially intelligent systems involve interconnected layers of artificial neurons that mirror the functionality of those in the human brain. In what follows, I'll discuss how initial attempts at machine cognition were hypothesized by Alan Turing using the data structure and algorithm method. Then, I'll show how advancements toward deeply layered neural networks offer more potential for the artificial creativity endeavour. Furthermore, I'll argue that mental representations in artificial neural nets can be responsible for the resultant creativity.

It is important that an artificial system is

not simply performing some randomizing function on the input to create what appears to be a new output. What is desired is for the machine to be capable of outputting deliberately-made creations rather than brute-forcing a thousand products for a human to only find a select few which are worthwhile. As such, we hope that the artificial system uses a methodology that mirrors a human's in this important way; by producing a limited number, but highly creative pieces. The consideration for the machine's method is first recognized in the Lady Lovelace objection to Alan Turing's conception of a thinking machine.

Turing believed that for a machine to be considered intelligent, it must be able to convince a human interpreter that it is also a human. In his conception of an Imitation Game, a computer would engage in faceless conversation with two humans (Turing, 434). One adjudicator attempts to distinguish the human participant from the machine only through text-based messages. Turing's Test implicitly asserts two things; firstly that thought can be reduced to computation and secondly that the act of convincing a human is composed of multiple elements sufficient for affirming the existence of thought (Turing, 435). If through adequately elaborate computation the machine can identify and perform its role in this Imitation Game, we must admit that it is exhibiting some remarkable traits. For instance, the computer must be able to react to certain nuances of language like humour, sarcasm, or insinuation. If the computer manages to imitate a human well enough that it cannot be distinguished from one, Turing says that we must consider it of comparable intelligence.



Some disagree with this claim because they think the Turing Test is not truly gauging the system’s intelligence. When considering creativity, Lady Lovelace challenges the possibility for creativity when she says that “a machine can ‘never do anything really new’,” (Turing, 450). This directly challenges the notion of originality required for creative ideas. This idea of newness also permeates Boden’s three categories, though she only mentions it briefly<sup>5</sup>. Lovelace, on the other hand, is arguing that a machine is not capable of creating something original that deviates from simply manipulating its inputs. The essence of her challenge can be quickly parried in two ways. First, Turing argues that it would be difficult to prove a human is capable of original thought that is entirely independent of inspiration (Turing, 450). Thus, Turing argues that humans cannot uphold the degree of originality that Lovelace is demanding of the machine, and hence he implies that it is unfair to hold the artificial system to such a standard. Second, it should be noted that advancements in machine learning also address this objection in a more literal sense. By their very nature, machine learning algorithms are designed to deduce rules and patterns that were not explicitly coded (Langley and Simon, 1). These algorithms do often make errors in their initial pattern deductions. However, as the algorithm iterates, the initial error helps to increase the probability that the algorithm ends up identifying a correct pattern (Langley and Simon, 2). This method of propagating the error backward through the network is one such means of supervised learning, where programmers compare generated outputs with ones deemed correct (Plaut, 2). Such learning meth-

ods can be applied to many pattern-recognition problems where the artificial systems outperform humans and thus surpass the standards Lovelace might have imagined.

Lady Lovelace’s challenge was directed toward a system vastly different than those used today. Modern computers are orders of magnitude faster and more complex than Turing machines, but this fact might not discourage her point about pure originality. If neither of the above answers seem adequate in responding to Lovelace’s objection, we might return to Boden’s three categories of creativity and examine whether they can be replicated. First, I’ll argue that mental representation is possible in artificial systems. More specifically, I’ll show that low-level implementations of neural structures can lead to mental structures like those Dennett describes. Second, I’ll refer to Boden to argue that these processes of creativity are replicable in artificial systems. Furthermore, I’ll describe a modern reconstruction of Lovelace’s argument and offer a more precise counterargument to illuminate the future of artificial intelligence development in this domain.

As mentioned previously, where Turing machines may fail, more advanced forms of artificial intelligence may flourish. This is especially the case in neural networks, where David Plaut shows that representations can exist as distributed entities; encoded by patterns of activity among many neuron units instead of encoded within a single unit (Plaut, 1). Furthermore, he argues that compared to simply scaling up a Turing Machine, these systems have new and

---

<sup>5</sup>Boden says newness is required for creative thought, but she makes no explicit reference to the degree of *how* new something must be for it to be a significant. We can piece together a potential answer from the rest of her writing, but it is worth mentioning that she seems to address newness as a precise binary (and creates H- and P-creativity).

more accurate ways of modelling the relationship between brain function and their associated cognitive processes (Plaut, 3). The neurobiological realism of these neural networks means that the mental representations they create are more analogous to the mental representations we humans experience. Moreover, to emphasize the analogous nature of the duality between the artificial and biological systems, Benedek Papp et al. argue that if the structure of an artificial neuron system mirrors that of a biological one, the cognitive capabilities are also mirrored (Papp et al., 7). They explicate how mental information is stored within the weightings of the connections between neurons (Papp et al., 8). This aligns with Plaut’s description of distributed representation and reinforces the similarity between artificial and biological networks. Thus, we can see that biologically-inspired artificial neural networks mimic the mental representations with which we are familiar. Next, we’ll briefly see a clearer picture of how neural activity manifests into the concepts, beliefs, and knowledge that guide our action.

Dennett argues that the *intentional stance* is far more sensible for predicting an individual’s beliefs and actions than, say, an astrological explanation (Dennett, 557). He asserts that intentional beliefs are real patterns of action that are describable only from the intentional stance (Dennett, 562). However, Paul Smolensky offers a detailed account of how we can speak meaningfully as we bridge the gap between neural activity and mental structures. He posits a paradigm of abstraction where neural structures support emergent symbolic layers which conclude with the mental structures of folk psychology, such as beliefs and desires (Smolensky,

97). He defines this as the symbolic paradigm but argues that this linear type of abstraction is inaccurate. Instead, he describes the more complex sub-symbolic paradigm, which attempts to formalize the processing which occurs in the nervous system (Smolensky, 99). Where the symbolic paradigm supported each layer directly upwards from the neural to the mental, the sub-symbolic has an intermediate connectionist system that precedes the approximate higher-level descriptions. To describe the details of Smolensky’s work would be inappropriate for this paper, but it is worth summarizing by saying that the sub-symbolic level is intended to highlight the dynamic nature of the fundamental neural system. In contrast, the symbolic description is only the resultant *approximation* of the sub-symbolic connectionist system that underlies it. This inaccuracy is due to the attempt to move directly from the neural to the symbolic level; because “connectionist systems are much closer to neural systems than are symbolic systems” (Smolensky, 99). Thus, the addition of the sub-symbolic level enables a higher degree of subtlety and complexity in understanding mental structures. It is worth noting that Smolensky defines connectionist systems similarly to how Plaut and Papp et al. describe neural networks; knowledge is encoded in the patterns of weighting strengths between neurons rather than in symbolic structures (Smolensky, 95). Thus, we’ve described the neural-cognitive gap that we must bridge and seen a few accounts of how to begin this process. Smolensky explicitly acknowledges the need for continued work in this area when he says that “the precise relationship between the neural and sub-symbolic levels is still an open research question” (Smolensky, 99). Nevertheless, we now have a clearer conception of how mental

representations can be accurately recreated in artificial systems.

If we recall Boden's three categories of creativity, we can see how our artificial mental representations can begin to constitute artificial creativity<sup>6</sup>. Boden nicely summarizes how combinational creativity could be achieved using the two general forms of artificial representation mentioned earlier; data structures and neural network/connectionist methods (Boden, 7). It is important to mention that a system roughly mashing two representations together does not necessarily constitute creativity. Instead, the system must form and evaluate intentional links between representations that are intelligible. To make these links thought-provoking or humorous, the artificial system would require "a database with a richness comparable to ours and methods of link-making comparable in subtlety to ours" (Boden, 8). Though this is a difficult programming task, it is important to notice that Boden is stating that the issue is one of ability, not possibility. Thus, we can see that it is possible to use analogous mental representations in artificial combinational creativity. Furthermore, artificial systems can explore a given creative space by following a certain style and designing new concepts, such as musical compositions or architectural blueprints, which fit within certain parameters that bound the style (Boden, 9). This can also be extended such that a program alters its parametrical rules to allow itself more opportunity for novel creation. One example of this parametrical rule alteration occurs in genetic algorithms, which generate new rules based on previously successful ones (Langley and Simon, 2). An algorithm that successfully reaches

its goal is the foundation of the rules of future generations. (Boden, 9). Returning to neural networks, Ahmed Elgammal et al. describe how two networks can be arranged such that they generate and discriminate creative works of art (Elgammal et al., 1). In their work, a variant of generative adversarial networks has been tailored toward exploratory creative pursuit. Their network generates images that controllably deviate from stylistic norms to increase their stylistic ambiguity while remaining artful enough for on-lookers to enjoy as much as human-generated art (Elgammal et al., 5 & 16). Thus, we see that both Boden's description of genetic algorithms and Elgammal et al.'s neural networks can be used to produce creative results.

Another attempt at artificially-conceived creativity was met with a modern reconstruction of Lovelace's argument. The program designed for literary creativity, called BRUTUS, can create grammatically correct English stories that contain intrigue and mystery (de Sousa, 642). However creative its writing may seem, Ronald de Sousa refutes what he calls the Direct Argument (put forth by Bringsjord and Ferrucci) that challenges BRUTUS' capability for novelty in its stories. The argument says that machines are things that implement algorithms and that nothing can count as creative if it cannot produce anything new (de Sousa, 645). The argument dubiously asserts that algorithms produce nothing new and thus algorithm implementation is not creativity; by extension, no machine can be considered creative (de Sousa, 646). This directly corresponds with Lovelace's objection to the notion of a machine being able to *originate* anything. De Sousa responds to this expanded

---

<sup>6</sup>If we recall and implement Wiggins' formalizations of Boden's categories, we can discover more precise examples of Boden's implementation of creativity both in human endeavor and in artificial systems.

form of the argument by asking why it is assumed that humans are not implementing (albeit complex) algorithms in our creative endeavors. Furthermore, De Sousa explains that any attempt to give an example of purely inspiration-free creativity undermines this argument because the examples require only a change of perspective to recognize “that the ‘absurd’ consequences entailed no contradiction” (De Sousa, 646). Thus, since it seems inherently impossible to identify the facet of human creativity that cannot be formalized, we must accept that our artificial approximations of creativity will eventually be indistinguishable from the human process<sup>7</sup>.

As we tread the line between imitating creativity and truly implementing it, we realize the boundary begins to blur as the imitation becomes more convincing<sup>8</sup>. In this paper, we’ve

seen how mental representations were initially described and how they can be seen as patterns of behaviour. Dennett gives an account of mental conceptions that can be rendered and understood with the intentional stance. Boden discusses how these concepts can be integrated together to constitute creative pursuits of three kinds. These three categories can be formalized and realized in different types of artificial systems. Papp et al., Plaut, and Smolensky have described how to understand the transition from low-level neuronal structures to more abstract mental structures, though this remains an active research area. In brief, creative pursuit is a feat that can be accomplished by artificial systems. Furthermore, the obstacles we face in the advancement of these systems are of an epistemological nature rather than a conceptual one.

#### AUTHOR BIOGRAPHY

My name is Kuil. I’ll soon be completing my undergraduate degree in Knowledge Integration and Philosophy at the University of Waterloo. I’ve focused my time on studying the mind through the lenses of linguistics, artificial intelligence, and psychology while relying largely upon the toolset of philosophy. This article began as a term paper for my courses on Intelligence and Philosophy of Mind and investigates something central to the human experience: the creation of thought. I am also interested in our attempts to model the mind, both in its cognitive and neural functioning, so AI offers a keystone that bridges between many of my conceptual interests and grounds them in more technical realizations. I find myself motivated to publish in JIRR because of its means of analyzing topics from interdisciplinary perspectives. I hope that in the future I am able to make some small contribution to this frontier of human knowledge.

---

<sup>7</sup>As attempts at formalization (like those we saw from Wiggins’ earlier) strengthen, we see creative results that match those of a human. See Elgammal et al.’s four experiments in Sections 4.3 to 4.4.

<sup>8</sup>See Bryan Lawson, Cliff Kuang, and Tim Rettig for further discussion of imitation and creativity. Refer to Yasuo Kuniyoshi Chapter 9 for a more detailed look at imitative learning and its emergent cognitive effects or see Section 2.4 of Elgammal et al.’s paper for more details on navigating and overcoming the boundary I only mention here.

## WORKS CITED

- Boden, M. (2004). The Creative Mind – Myths and Mechanisms. *Psychological Medicine*, 21(03). doi: 10.1017/s003329170002256x
- Chalmers, David John. *Philosophy of Mind Classical and Contemporary Readings*. Oxford University Press, 2002. (used for Brentano & Dennett)
- Bringsjord, S., & Ferrucci, D. (2013). Artificial Intelligence and Literary Creativity: Inside the Mind of BRUTUS, a Storytelling Machine. New York: Psychology Press. Reviewed by Ronald de Sousa, University of Toronto.
- Elgammal, A., Liu, B., Elhoseiny, M., & Mazzone, M. (2017). CAN: Creative Adversarial Networks Generating “Art” by Learning About Styles and Deviating from Style Norms. *International Conference on Computational Creativity (ICCC)*, 1(1), 1-22. doi: 1706.07068v1
- Kuang, C. (2016). Is Imitation the Hidden Key to Creativity?. Retrieved from <https://www.fastcompany.com/1457113/imitation-hidden-key-creativity>
- Kuniyoshi, Y. (2015). Learning from Examples: Imitation Learning and Emerging Cognition. In: Cheng G PhD, editor. *Humanoid Robotics and Neuroscience: Science, Engineering and Society*. Boca Raton (FL): CRC Press/Taylor & Francis; 2015. Chapter 9. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK299030/>
- Langley, P., & Simon, H. (1995). Applications of machine learning and rule induction. *Communications of the ACM*, 38(11), pp. 1-17. doi: 10.1145/219717.219768
- Lawson, B. (1999). ‘Fake’ and ‘Real’ Creativity using Computer Aided Design: some lessons from Herman Hertzberger. *Conference Paper*. doi: 10.1145/317561.317591
- Papp, B., Junger, F., Beres, K., & Stanyo, G. (2004). Mental Representation by Electric Neural Nets, 1-12. Retrieved from <http://conf.uni-obuda.hu/HUCI2002/PETRES.PDF>
- Plaut, D. (1999). Connectionist Modeling. Kasdin, A. (Ed.) *Encyclopedia of Psychology*. American Psychological Association. Retrieved from <http://www.cnbc.cmu.edu/plaut/papers/pdf/Plautt00chap.conn.pdf>
- Rettig, T. (2017). Why imitation will always be the key to all learning and creativity. Retrieved from <https://medium.com/@rettigtim/why-imitation-will-always-be-the-key-to-all-learning->

and-creativity-5ef323625566

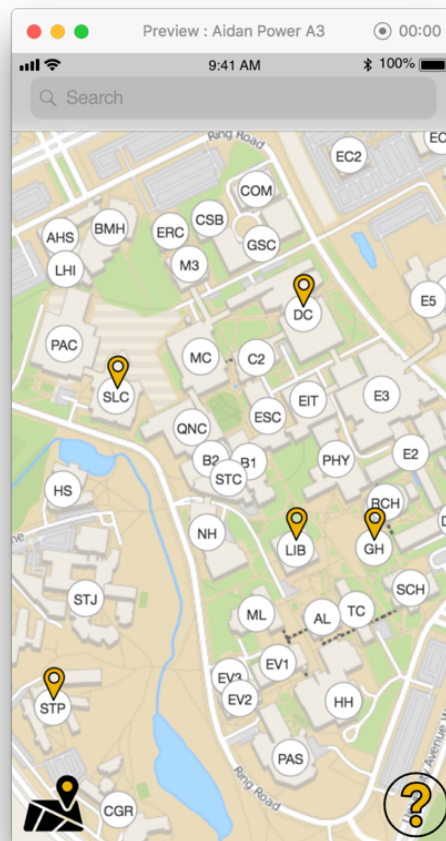
Smolensky, P. (1987). Connectionist AI, symbolic AI, and the brain. *Artificial Intelligence Review*, 1(2), 95-109. doi: 10.1007/bf00130011

Thagard, P. (2016). Brain-mind: From Neurons to Consciousness and Creativity, Chapter 11, draft 4, University of Waterloo

Wiggins, G. (2001). Towards a more precise characterisation of creativity in AI, 1, pp. 1-8.  
Retrieved from <https://pdfs.semanticscholar.org/f266/a962520f89b77e9e4023a76a3a76eede4687.pdf>

# Using Locative Media to Enrich Spaces with Historical Artifacts

Aidan Power

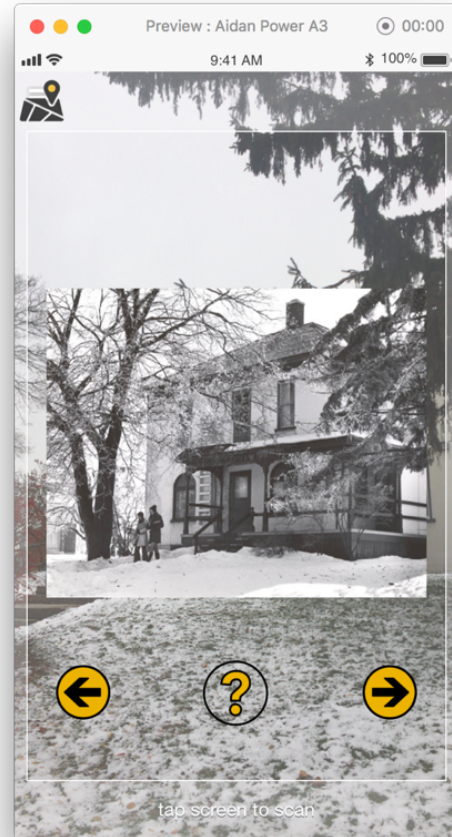


When users first open the app, they are presented with a map of the various locations on campus that contain AR artifacts. Upon arriving at each location they can click on the markers that will allow them to “scan” the space for AR artifacts and display them over top of the existing scenes.



At St. Paul's University College, users can see images from residence orientations gone by, such as this photo from the mid 1960's where students go diving in an outdoor pool!

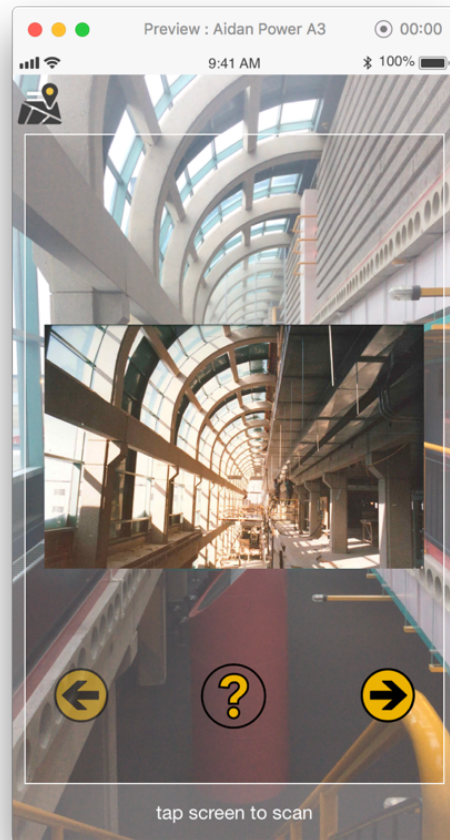




The Graduate House was originally named the Schweitzer Farmhouse as it was where the farmers lived before their land was purchased by the University of Waterloo in the 1950s. The AR artifact here shows the Grad House in the middle of winter in the 1970s.



Dana Porter Library, originally constructed to be 7 stories tall, had an additional 3 stories added to it in the early 1970s.



At the William G. Davis Computer Research Centre when it was constructed between 1985 and 1988.



By swiping up on the question mark, users can read interesting stories about each AR artifact, as well as when and where it was taken. This story dives into a promotional shot from the opening of the Davis Centre in 1988.

I N *FINE 229: Hybrid Digital Media*, I created a prototype of a mobile augmented reality application that allows students and visitors on the University of Waterloo campus to explore the space through rich historical photos and accounts. The app is meant to be used by students at the University of Waterloo as a way of connecting them to the institution’s past, the students who have come before them and their lived experiences. It achieves this by overlapping the familiar, contemporary landscapes with historical photos that create a liminal space between the past and present.

Augmented Reality (AR) can be described as the “integration of digital information with the user’s environment in real time” (Rouse, 2015). Simple examples of AR include Google Maps, which responds to users’ movements in space in real time, while more complex examples often use a mobile screen as a camera to display the built environment around the user with digital media artifacts laid over top.

This project makes use of mobile technology and augmented reality to examine how space can be reinvented over time through the camera and location settings on one’s smartphone. It brings together interface design, locative media studies, and history to produce new experiences for users and expose them to forgotten or rarely remembered stories. Swiping up on an image,

users can read about the story behind it, as well as when and where it was taken.

The app is meant to be accessible on the go for students to enter a space, “scan” it, and be exposed to the rich history it has to offer, from demonstrations in the SLC to the construction of some of the most recognizable buildings on campus. I drew inspiration from the *Mi Querido Barrio Augmented Reality Exhibition* commissioned by the *Caribbean Cultural Center African Diaspora Institute* (CCCADI) in New York City, which used the Blippar AR app. *Mi Querido Barrio* used AR to showcase forgotten or lost street murals in East Harlem, similarly to how this project presents archival photos of Waterloo in front of their present day sites through one’s camera phone.

This project brings together a wide variety of resources including images from the *60<sup>th</sup> Anniversary Image Bank*, put together by the University’s Special Collections & Archives and image banks put together by faculties and residences across campus. Each photo’s description is based on writings from *Water Under the Bridge*, a collection of stories about campus over the years by Chris Redmond, who worked on campus as an editor of the *Gazette* and later the *Daily Bulletin*.

#### AUTHOR BIOGRAPHY

I am an undergraduate student at the University of Waterloo majoring in Knowledge Integration, with a Computer Science minor and a Science, Technology and Society specialization.

Augmented Reality is a very fascinating story telling device and this project allowed me to bring together my interests in user experience design, history and artistic practice. It was inspired in part by a need for a stronger sense of community within the university institution, where historical moments are often forgotten within 4-5 years as the student body graduates. Leveraging augmented reality technology, I hope that a project similar to this one could inspire students to connect with the rich and diverse past that the University of Waterloo has to offer. I would like to thank JIRR for their support and for creating a platform where undergraduate students can share their writings on important, interdisciplinary topics.

## Works Cited

Abdulrahem, Noma, Nicole Bennett, Layrissa Li, University Press. “Waterloo, Then and Now” *waterloo.ca. University of Waterloo*, March 14th, 2017.

<https://uwaterloo.ca/innovation60/blog/post/waterloo-then-and-now>

Loo, Stephen. “Historic Timeline” *uwaterloo.ca/stpauls/. St. Paul’s University College*, 2013.

<https://uwaterloo.ca/stpauls/celebrating-50-years/historic-timeline>

Redmond, Chris, Simon the Troll. “Water Under the Bridge” *uwaterloo.ca. University of*

*Waterloo*. <https://uwaterloo.ca/water-under-the-bridge/>

Rouse, Margret. “Augmented Reality (AR)” *whatis.techtarget.com. What is.com Tech Target*,

2015. <https://whatis.techtarget.com/definition/augmented-reality-AR>

“Mi Querido Barrio Augmented Reality Exhibition and Tour” *ccadi.org. Caribbean Cultural*

*Center African Diaspora Institute*, 2013, 2016. <https://www.ccadi.org/miqueridobarrio>

“Historical Photos” *uwaterloo.ca/math/. The Faculty of Mathematics*. [https://uwaterloo.ca/math/](https://uwaterloo.ca/math/historical-photos)

[historical-photos](https://uwaterloo.ca/math/historical-photos)

## The Silencing of LGBTQ Older Adults' Identities Through Ageing in Long-Term Care

Shauna Wallace

---

LESBIAN, gay, bisexual, transgender, and queer (also known as LGBTQ) activists have done instrumental work to challenge public stigma over the last several decades in order to advance LGBTQ rights. Although this activism work has initiated significant social change, pioneers of this movement, among many other LGBTQ ageing individuals, often find themselves disenfranchised as they age and seek appropriate long-term housing and care. As the ageing population grows, so does the urgency to provide accessible long-term care that supports the diversity of its residents. Thus, it is imperative to establish a standard of care with an emphasis on training staff and residents to encourage respectful and equitable treatment of LGBTQ residents.

Through my analysis, disadvantages to LGBTQ older adults as it relates to long-term care, will be discussed through social, gerontological, cultural, and healthcare perspectives. I will underline how ageing as an LGBTQ individ-

ual is a social process by explaining how social theories can support, as well as limit changes in the LGBTQ experience. I will use life course, feminist, and queer theory to inform my analysis. Further, I will use feminist and queer theory to critically examine institutional and societal patterns in treatment of the ageing LGBTQ community, as well as how LGBTQ older adults can be marginalized by the theories themselves. I will then use life course theory to address cumulative disadvantages according to two of its main principles, *lives in time and place and human action within constraint*.

External sources will provide the current paper with a strong foundation of social theories, while supplementary research will provide me a comprehensive lens to examine contemporary issues regarding LGBTQ ageing. Therefore, throughout this paper, the need for improved provision of long-term care for LGBTQ older adults in Western culture will be emphasized



through discussion of relevant social theories as well as social factors contributing to the current climate of long-term care for the aforementioned population: discriminatory attitudes, a shifting landscape of social support, and competency of care.

#### A CONTEMPORARY ISSUE: LGBTQ LONG-TERM CARE

The current analysis was inspired by a 2018 *Globe and Mail* article entitled “LGBTQ seniors fear renewed discrimination in long-term care”. This article provides first-hand accounts of the treatment of LGBTQ individuals in long-term care. Here, these individuals often experience significant social isolation due to heterosexual older adults’ minimal experiences with them, which cause tension and prejudicial attitudes. It captures the diversity of experiences of LGBTQ individuals in long-term care homes; a stark contrast exists between the lack of acceptance faced by 81-year old David McClure with the ‘open-armed’ welcome experienced by 62-year old Paul Leroux. It then explains that the deficiencies in training staff on LGBTQ issues can quickly lead to differential and prejudicial treatment. This environment can foster anxiety in LGBTQ residents and may prevent them from identifying as LGBTQ for fear of mistreatment. The article references social activities like drag shows and Pride festivals, which can help facilitate positive contact among staff and residents (Ibbitson, 2018). Experiences like McClure’s, though, are not uncommon, as discrimination for an LGBTQ individual starts much earlier in their life than at the point when long-term care becomes a concern.

#### DISCRIMINATION AND IDENTITY SILENCING

Common adverse life experiences highlighted as most significant by ageing LGBTQ individuals include, but are not limited to, mental health problems, addictions, severe economic hardship, and encountering bias due to discrimination (Fredriksen-Goldsen, Muraco, Kim, Goldsen, & Jen, 2016). The comorbidity of these experiences suggests a correlational relationship between them, which is most likely influenced by discrimination and prejudiced viewpoints. A unique challenge is presented since the intersection of ageism and homophobia or transphobia often excludes LGBTQ older adults from public and scholarly discourse, silencing their voices (Glenn, 2004; as cited in Brown, 2009). Older adults are typically viewed as asexual and LGBTQ individuals are viewed as hypersexual. Because of this, LGBTQ older adults are overwhelmingly ignored by the public and overlooked by the larger LGBTQ community (Abatiell & Adams, 2011), this contributes to the public stigma since these individuals often do not fit into either group and feel ostracized as a result.

#### QUEER AND FEMINIST THEORY

Ostracism is not limited to exclusionary social discourse, as scholarly works can also exclude LGBTQ individuals from academic discourse. For example, as a subset of critical theory, queer theory works in conjunction with feminist theory to challenge heteronormative narratives in social gerontology. Some may feel ostracized from queer theory due to the violent and oppressive history of the term ‘queer’ itself, while others feel that normative ideologies of age and class still exist within the theory, which elevates

the white male experience. The lack of acknowledgement of older adults in queer theory as well as separately in gerontological theories can leave them feeling disenfranchised and lacking adequate social and material supports (Halberstam, 2005; as cited in Brown 2009).

Feminist theory also excludes LGBTQ individuals from its narrative in a similar way. Feminist theory seeks to explain how gender hierarchies are sustained. In this theory, women are seen as disadvantaged through inherently gendered patriarchal systems, and these gender inequities are seen as institutionalized, exacerbated by dynamic forces which in turn, influence individual choices (Estes, 2004; as cited in Wister & McPherson, 2014). Although the theory aims to promote equality across genders, it neglects to do so with LGBTQ older adults as they are not mentioned in this theory and even less so in scholarly literature from a theoretical lens (Kia, 2016). Transgender identity and sexuality in LGBTQ older adults are similarly ignored, perpetuating more dominant heteronormative theories and myths of ageing (Brown, 2009).

One problematic aspect of cultural discourse that may influence LGBTQ exclusion from these theories is assumptions made about LGBTQ identities based on stereotypes and generalizations. With regards to conceptualizing LGBTQ identities, it is imperative to differentiate between individual experiences and sexualities. Therefore, a greater effort must be made to dispel myths surrounding the existence of a single normative and all-encompassing LGBTQ identity. This identity tends to propagate the archetypal LGBTQ individual as a youthful radical, creating a disconnect between group and

personal LGBTQ identities. This relative invisibility of LGBTQ older adults that do not fit this description, in comparison with the more dominant young LGBTQ individuals, suggests a need for realignment of cultural expectations of LGBTQ identity on both a group and personal level (Brown 2009; Knauer, 2011; as cited in Abatiell & Adams, 2011).

#### LIFE COURSE THEORY

In addition to the aforementioned theories, life course theory can also be applied to LGBTQ individuals in ageing. Although LGBTQ individuals are not explicitly mentioned in life course theory, it can be applied as a means of identifying how one's biography and history are bridged by considering significant life transitions, trajectories, and turning points. Two of its principles are particularly relevant: *lives in time and place* and *human action within constraint*. *Lives in time and place* refers to the historical and geographical settings which impact individual experience. For example, prejudicial attitudes towards an LGBTQ older adult might have been more heavily emphasized a century ago or in a more conservative Eastern European country compared to current attitudes, but conversely, may be much less exaggerated in the future as attitudes continue to progressively shift towards acceptance of diversity.

Next, *human action within constraint* refers to the idea that lives are constructed within the parameters of individual social experiences. A relevant example is an 'out' LGBTQ older adult that is unable to afford a more accepting long-term care home due to insufficient private funds and as such, their agency is limited. This may be

the result of systemic and life-long discrimination, resulting in impoverishment (Wiger, 2015; Westwood, 2016). In this case, cumulative consequences of institutionalized prejudice led to an increased risk of being in a financially unstable state (Abatiell & Adams, 2011).

Although life course theory can illuminate several disparities and systemic prejudices in the current system of care, it too lacks the queer perspective. This theory may benefit from being expanded to include discussion of how one's social location can affect their LGBTQ identity throughout the life course. It might also incorporate examples of non-traditional family structures and include discussion of more diverse life paths that are not limited to family, education, and work progression. Aspects of queer life such as turning points, like coming out, and transitions, like sex-reassignment surgeries, are currently excluded from the heteronormative model of life course theory. This effectively silences the perspective of LGBTQ older adults, invalidating their diverse trajectories (Brown, 2009).

#### SHIFTING LANDSCAPE OF SOCIAL SUPPORT: FORMAL SUPPORTS

In the current landscape of long-term care, LGBTQ older adults are considered some of the most critically underserved and at-risk populations. The same individuals who may have led a revolutionary movement to demand equality are once again having to demand equality in provision of appropriate long-term care. This is largely due to a general neglect in policy and program development (Abatiell & Adams, 2011). Many have grown accustomed to denying their

own identities in order to appease caregivers, this is largely due to the lack of acceptance in formal care settings. In fear of mistreatment, these individuals often do not disclose their LGBTQ identities as an unconscious response to previous trauma (Westwood, 2016).

The tendency to pathologize individuals is another problematic, yet prevalent practice in caregiving and the healthcare system. For instance, gender non-conforming or transgender individuals may feel disrespected and invalidated by the DSM-V (Diagnostic and Statistical Manual of Mental Disorders, 5th Edition) classification of gender dysphoria, just as individuals identifying as gay might have felt 'disordered' by the previous classification of homosexuality as a psychological disorder in the DSM-III (Westwood, 2016). Institutions can silence identities simply by ignoring or pathologizing them, which promotes a heteronormative ideal (Foucault, 1978; as cited in Brown 2009; Willis, 2017).

Examples of this systemic neglect are quite evident through examining formal social supports for ageing LGBTQ individuals. Some examples of formal supports that are often inaccessible to LGBTQ older adults include Social Security and Medicaid 'safety nets' in the United States. Further, acquiring correct documentation that agrees with gender presentation, and is necessary to access these services, may be very time-consuming and expensive to acquire. Additionally, there is a general lack of policies protecting LGBTQ older adults in long-term care homes. As an example, there are often minimal policies surrounding placement of LGBTQ individuals in same-sex bedrooms that contradict their self-identified gender and presentation

(Porter et al., 2016).

#### SHIFTING LANDSCAPE OF SOCIAL SUPPORT: INFORMAL SUPPORTS

LGBTQ individuals also lack informal social support systems. Frequent cutting of familial ties and estrangement due to disapproval of ‘lifestyle’ factors associated with identifying as LGBTQ leads to increased reliance on ‘families of choice’, which consist of friends, partners, and other non-familial supports that tend to weaken with age. LGBTQ older adults are twice as likely as their heterosexual counterparts to live alone, 75% less likely to have children, and even fewer are involved in long-term relationships (Abatiell & Adams, 2011; Wiger, 2015). In addition to this, before the advent of antiretroviral drugs, and during the HIV/AIDS epidemic, LGBTQ individuals were not expected to live as long as they do now. As a result, after the HIV/AIDS epidemic, there were fewer intergenerational relationships remaining in the LGBTQ community (Wiger, 2015).

#### COMPETENCY IN CARE: HEALTHCARE CONCERNS

Support for LGBTQ individuals is also lacking in the social services sector. Due to medical advances over the years, development of antiretroviral treatments has led to a rise in HIV-positive individuals living over the age of 50. This is significant since the death rate from HIV has significantly declined in recent years. From 2005 to 2015, the death rate from HIV was almost halved from 2 million to 1.1 million (Roser & Ritchie, 2018). Despite the improved longevity due to medical advances and the de-

criminalization of LGBTQ relationships, attitudes regarding LGBTQ issues remain slow to change. LGBTQ individuals often find themselves lacking adequate support as social services are slow to respond to their needs (Abiell & Adams, 2011).

As such, the desexualisation of older adults leads to a diminished rate of testing for sexually-transmitted infections (STIs) and diseases, like HIV, despite the higher rate of sexually-risky behaviours such as not using condoms during intercourse. The combination of the perception that older adults are not sexually active, and HIV symptoms being frequently misdiagnosed as common illnesses, results in a significant delay in diagnosing HIV from its onset. Therefore, ignorance of LGBTQ healthcare needs can perpetuate the spread of HIV and lead to neglect of sexual health in general (Abiell & Adams, 2011).

#### COMPETENCY IN CARE: ATTITUDES IN CARE-GIVING

Several systemic issues in caregiving, and healthcare as discussed above, of LGBTQ older adults can stem from prejudicial attitudes. Many North American caretakers show obvious signs of disapproval or abuse towards LGBTQ individuals. Canada was the first country in North America to legalize same sex marriage in 2005, and as such, Canadian social policy must now follow suit by offering appropriate support in older age. In the United States, discrimination is currently only illegal in 50% of states. This may permit heightened prejudicial attitudes to continue. Thus, a lack of enforced action against discriminatory behaviours perpetuates a general hostility towards LGBTQ individuals (Wiger,

2015).

This hostility can be targeted with diversity and sensitivity training, which will help to make staff more knowledgeable and aware of, as well as welcoming to LGBTQ older adults (Wiger, 2015). While competency training is gaining traction in certain institutions, unfortunately, diversity training is insufficiently prioritized and non-mandatory, and one training session is hardly enough to combat systemic issues of prejudicial treatment (Westwood & Knowcker, 2016; as cited in Westwood, 2016). The lack of adequate provision of care demonstrated through insufficient training can be viewed as a denial of human rights and resistance of equality. This is because LGBTQ individuals have the equal right to long-term housing and care that is respectful and responsive to their specific needs; an equitable and just ask, as non-LGBTQ individuals receive this same right without question (Westwood, 2016).

#### COMPETENCY IN CARE: SUGGESTIONS FOR FUTURE ADVOCACY AND EDUCATION

In work advocating for celebrating the diversity of the LGBTQ community, recognizing individual differences is an important aspect of delivering effective care. A crucial facet of this care is acknowledging the agency and diverse needs of LGBTQ older adults. Competency in care for LGBTQ individuals is contingent upon the sensitivity and diversity training that caregivers and service providers receive. Educating caregivers regarding LGBTQ needs at the theoretical level is a crucial step in being able to apply this knowledge in program development. Wiger (2015) suggests expanding services to of-

fer a ‘Rainbow Information Fair’ for the purpose of educating long-term care staff and fellow residents, encouraging shifting attitudes towards LGBTQ individuals and promoting inclusivity.

In the current literature, LGBTQ older adults are largely understudied, and further research is needed to appropriately map the needs of these individuals. One challenge in data collection is that these individuals are often apprehensive to ‘out’ themselves in fear of mistreatment (Abatiell & Adams, 2011), remaining invisible as a means of protecting themselves from discriminatory expressions (Willis, 2017). It is crucial to promote visibility and markers of inclusion for LGBTQ individuals by using promotional materials in long-term care homes to communicate acceptance of diverse families outside of the heteronormative expectation. Further research is needed to investigate the effectiveness of these visibility strategies through longitudinal case studies (Willis, 2017).

#### OVERCOMING LIMITATIONS AND OPPOSITION

Although increased visibility of LGBTQ individuals can decrease stigma, increased visibility strategies may not be the preferred solution for everyone. Perhaps not all LGBTQ older adults desire to be open about their identities, and thus do not care to be active members of the greater LGBTQ community. This may be in part because they view their LGBTQ identity as only a small fraction of their whole identity as a person. Also, risks associated with being ‘out’ may be quite serious, depending on one’s context. Due to religious and cultural ideals, as well as personal misconceptions about LGBTQ individuals, there may be systemic resistance to

change in political and corporate climates. This can be reflected by the lack of support for diverse identities of LGBTQ older adults in long-term care homes.

For example, in 2017, U. S. President Donald Trump removed the LGBTQ community from *The National Survey of Older Americans Act Participants* and the *Annual Program Performance Report for Centers for Independent Living*. These surveys are integral in informing caregiving practices for older adults (Anderson, 2017). This further demonstrates how living in a radically conservative climate that is not affirming of non-heteronormative identities can actively oppress and stifle voices of marginalized groups. This type of action can effectively erase LGBTQ older adults from the fabric of history.

In the case that LGBTQ older adults choose to keep their identities private, caregivers can still support them by partaking in an accepting and open helping relationship. General recommendations for caregivers of LGBTQ older adults include respecting boundaries, helping clients to navigate difficult emotions regarding a transition to long-term care, validating concerns of how intersectionality can impact a LGBTQ older adult's social location, and using inclusive and culturally-specific language (e.g. Two-Spirit for some Aboriginal persons) (Porter et al., 2016).

## CONCLUDING THOUGHTS

Through this critical analysis, the urgent need for a reform in LGBTQ long-term care was discussed. Exclusion of LGBTQ individuals from narratives of social theories such as

queer, feminist, and life course theories commonly drawn on in gerontology are in part to blame for this gap in care. This is because education and programming reforms often rely on research and scholarly theories to communicate improvements that need to be made. It is pertinent to consider how cumulative disadvantages and social factors over the life span, such as the instability of chosen families, financial insecurity, and systemic discrimination, make LGBTQ older adults particularly vulnerable to neglect in long-term care facilities. Furthermore, systemic discrepancies in healthcare as well as caregiving attitudes towards LGBTQ older adults leads to these individuals being discriminated against regularly and they may find it difficult to mobilize resources to protect themselves due to inadequate social supports. Therefore, exclusion of marginalized LGBTQ older adults effectively silences their voices, leading to inaction and complacency in long-term care reform. It is crucial to maintain sensitivity in engaging with LGBTQ voices by acknowledging individual agency and differing needs, as some self-expression requires LGBTQ individuals to become vulnerable and may trigger anxiety as a result (Willis, 2017).

In summary, a 'one size fits all' approach is not an effective model for provision of long-term supportive care for LGBTQ older adults. As an active and engaged citizen, one can also do their part to promote acceptance of diversity by using inclusive language with everyone, but older adults especially. Individuals can use terms like 'partner' instead of 'boyfriend' or 'girlfriend' to promote open and safe conversation as well as avoid making assumptions regarding sexual preferences or gender identities of older adults. Additionally, individuals can vote for political

candidates who do not diminish the LGBTQ perspective and instead, choose to honour and empower it. Lastly, since many older adults tend to have aversive attitudes towards LGBTQ individuals due to lack of exposure, individuals that consider themselves allies must challenge prejudicial attitudes. Allies can do this by vowing to address discrimination in public and private discourse while challenging prejudiced behaviours, especially in the presence of older adults.

#### AUTHOR BIOGRAPHY

Shauna is a recent graduate of the Bachelor of Arts & Sciences program at the University of Guelph, with an arts specialization in Family and Child Studies and a science specialization in Psychology: Brain & Cognition. During this time, she has also earned a certificate in Spanish Language and Culture. She began writing the current piece as a commentary on disparities in systems of older adult care for Prof. Kelsey Harvey's Social Gerontology course. She was motivated in her writing by her passion for advocating for minority groups commonly overlooked and underserved. She hopes to continue advocating for issues of social location by learning more about specialized and trauma-informed care through a graduate degree in Counselling and Psychotherapy.

## WORKS CITED

- Abatiell, P., & Adams, M. (2011). LGBT aging: A question of identity. *The Gerontologist*, 51(6), 880-884. doi:10.1093/geront/gnr113
- Anderson, D. (2017, March 20). Trump administration removes LGBTQ seniors from federal care surveys. *States News Service*. Retrieved from <http://link.galegroup.com.subzero.lib.uoguelph.ca/apps/doc/A487032031/AONE?sid=googlescholar>
- Brown, M. T. (2009). LGBT aging and rhetorical silence. *Sexuality Research and Social Policy*, 6(4), 65-78. doi:10.1525/srsp.2009.6.4.65
- Fredriksen-Goldsen, K., Muraco, A., Kim, H., Goldsen, J., & Jen, S. (2016). Unfolding LGBT lives: Key life experiences and the life course. *The Gerontologist*, 56(3), 653. doi:10.1093/geront/gnw162.2653
- Ibbitson, J. (2018, August 7). LGBTQ seniors fear renewed discrimination in long-term care. *The Globe and Mail*. Retrieved from <https://www.theglobeandmail.com/politics/article-lgbtq-seniors-fear-renewed-discrimination-in-long-term-care/>
- Kia, H. (2016). Hypervisibility: Toward a conceptualization of LGBTQ aging. *Sexuality Research & Social Policy; Berkeley*, 13(1), 46-57. <http://dx.doi.org.subzero.lib.uoguelph.ca/10.1007/s13178-015-0194-9>
- Porter, K. E., Brennan-Ing, M., Chang, S. C., Dickey, L. M., Singh, A. A., Bower, K. L., & Witten, T. M. (2016). Providing competent and affirming services for transgender and gender nonconforming older adults. *Clinical Gerontologist*. Retrieved from <https://www.tandfonline.com.subzero.lib.uoguelph.ca/doi/abs/10.1080/07317115.2016.1203383>
- Roser, M., & Ritchie, H. (2018). HIV / AIDS. *Our World in Data*. Retrieved from <https://ourworldindata.org/hiv-aids>
- Westwood, S. (2016). LGBT\* ageing in the UK: Spatial inequalities in older age housing/care provision. *Journal of Poverty and Social Justice*, 24(1), 63-76. doi:10.1332/175982716x14538098308249
- Willis, P. (2017). Queer, visible, present: The visibility of older LGB adults in long-term care environments. *Housing, Care and Support*, 20(3), 110-120. doi:10.1108/hcs-04-2017-0007



Wiger, R. (2015, August). The silver rainbow: societal challenges facing LGBTQ seniors. *Parks & Recreation*, 50(8), 50+. Retrieved from <http://link.galegroup.com.subzero.lib.uoguelph.ca/apps/doc/A427757108/AONE?u=guel77241&sid=AONE&xid=986f480b>

Wister, A., & McPherson, B. D. (2014). *Aging as a social process: Canadian perspectives*. Don Mills, ON: Oxford University Press.

# Governmentality: A Theoretical Evaluation of Supervised Injection Sites and Consequent Police Practices

Benjamin Scher

---

## PREFACE

CANADA is in the midst of a national health crisis. The opioid epidemic is one of the most current and devastating social issues impacting Canadian society today, having killed over 9,000 people since the start of 2016 (Canadian Institute for Health Information 2019). Additionally, in the past 10 years, the rate of hospitalization due to opioid poisoning has risen by 53%, placing an additional financial burden of 3.8 billion dollars on the Canadian health care system and emergency services combined (Canadian Centre on Substance Use and Addiction 2018). These, however, are not just statistics. These numbers represent a genuine threat to both the lives and quality of life of individuals, families, and communities across the country.

A proven solution to these alarming numbers of overdoses are supervised injection sites (SIS), a harm reduction initiative geared solely towards

preventing overdoses, allowing addicts a chance to get to a place of recovery. However, for the demographic in need of this service, a community historically marginalised by the wider society, there are many structural barriers in place impacting their ability to access SIS. In light of this public health crisis at hand, a collaborative solution needs to be found.

With police being primary actors in the safety of all citizens, my master's thesis will examine the effects of police practices on addicts' drug-related behaviours specifically in relation to SIS. Based out of a Vancouver SIS, my study will be solely qualitative, with in-depth semi-structured interviews and focus group discussions with SIS users, SIS staff, and addiction experts informing the results. In addition, I will be incorporating 5 months of non-participant observation, producing an eye-opening account of the complicated relationship that exists between addicts and law enforcement.

By August 2019, this study will have produced results that can inform and potentially update police practices that best serve the needs of the community they are protecting. I believe that an anthropological approach to public health issues of this kind will produce unique findings that can be in the pursuit of partner-driven public health solutions to contemporary drug problems such as the opioid epidemic.

This paper will serve as a preliminary critical analysis of SIS, with the purpose of exploring the potential underlying political motives of this intervention. I will be using Foucauldian social theory of governmentality to analyse SIS with the aim of critically assessing whether they truly function in prioritizing the ideals of harm reduction as the primary motive of their service, or if SIS are in fact a political technology and police are extensions of this technology. I believe that it is extremely important to use critical lenses found within disciplines such as anthropology and philosophy to better understand and unpack underlying factors and motives for any new and potentially rushed intervention. To quote Foucault “my point is not that everything is bad, but that everything has the potential to be dangerous which is not necessarily the same as bad” (Foucault 1980, 343).

## INTRODUCTION

This paper looks to present governmentality as a theoretical framework through which to evaluate supervised injection sites (SIS) as a ‘political technology’ and police as extensions of this ‘technology’. Firstly, after defining the aspects of governmentality relevant to this topic, I will dis-

cuss how SIS arose under the discourses of ‘public health’ and ‘harm reduction’. It will become clear that SIS were construed to fit varying political ideologies as a technology to cleanse public spaces of ‘disorderly’ drug use, thus safeguarding the urban environment as an attractive civil and commercial space. As a result, SIS can be understood as spaces of exclusion, immediately linking people to a marginalised population. Secondly, through the framework of governmentality, SIS can be contextualized as a powerful tool of surveillance and discipline that attempts to modify the lifestyle choices of drug users, with the aim of successfully conforming them to certain ‘acceptable’ behavioural traits. Thirdly, this paper will show that both in their aims and physical structure, SIS show many resemblances to Jeremy Bentham’s ‘panopticon’ design, later expanded by Foucault as a metaphor for government control. Lastly, once again using the lens of governmentality, I will demonstrate that police practices ironically work in opposition to the aim of SIS as a technology of control, as studies have shown that varying police practices can often limit the ability of drug users to utilize SIS. Governmentality will prove to be a useful tool to philosophically conceptualize both the aims of this health care intervention and the role of the varying institutions that supposedly work in support of these aims.

## GOVERNMENTALITY AND THE BASIS OF POWER

Governmentality is a concept originally developed by Michelle Foucault in his 1977-1978 lecture series: “*Security, territory, population*” (Foucault 1977). In this lecture series, Foucault was mainly interested in the foundation

of power relations and wanted to understand the ways in which the state administered control over its populace. Governmentality refers to the art of government or the relations of power amongst the state and its people. Foucault identified three forms of power: sovereign power, disciplinary power and biopower. It is the latter two, however, that are of relevance to this paper.

Disciplinary power is characteristic of ‘modern societies’ and refers to the multitude of government institutions that sub-consciously inculcate us with both knowledge of how to behave and a fear of punishment if these behaviours are not abided by. These institutions include schools, prisons, hospitals, militaries and so forth. Disciplinary power is strongly linked to power-knowledge theory (Foucault 1980) that asserts that it is the institutions that create and disseminate knowledge, that in turn wield great control over its population as they can train people as to how they think, how they know to behave, their values and morals. By extension, this allows the holder of power to observe, analyse, and foster the psyche of the populace. Lilja (2008) explains that disciplinary power can be perceived as a

“system of knowledge that seeks to know the individual as an object to be known in relation to others who can be known. Thereafter, those deviating from the norm are defined as abnormal. The abnormal is subject to corrective or therapeutic techniques that aim to reform, fix or rehabilitate it.” (Lilja 2008, 149)

Indeed, through this definition, we see that these government institutions are homogeneously schooling us to behave a certain way. When

this fails, we are subsequently subjugated to a further set of institutions that correct us. This system of governmentality ensures “that non-conformity with the norm is punishable... to be equal is to be the same... to be different is to be inferior.” (Foucault 1991, 177)

The third and final form of power is Biopower. Biopower is an extension of governmentality relating to the health of a government’s subjects. The techniques of biopower function to “incite, reinforce, control, monitor, optimize and organize” (Foucault 1978, 136) all matters health-related, and thus the economic productivity of its subjects:

“Biopower is concerned with matters of life and death, with birth and propagation, with health and illness, both physical and mental, and ... the optimization of the life of a population ... the social, cultural, environmental, economic and geographic conditions ... the family, with housing, living and working conditions, with what we call ‘lifestyle’ ... and the standards of living.” (Dean 2010, 119)

On the basis that people within modern day neoliberal societies are free entities, who in theory have agency over their everyday decisions, people are trained to believe they want to act in this way. In a sense, it feels very natural – but ultimately ensures the maintenance of social order. To put it simply, governmentality fosters a willing participation of the governed that is based on the active consent of the populace. This outlining of governmentality will prove to be extremely useful in contextualizing the aims of SIS.

## GOVERNMENTALITY AND SUPERVISED INJECTION SITES (SIS)

Canada is in the midst of an opioid crisis. In response, both provincial and federal governments have adopted public policy geared towards harm reduction, with the aim of immediately lowering the number of overdoses being recorded. SIS have been a central component to this shift towards harm reduction public policy. With the sole aim of combatting overdoses, SIS are locations in which drug users have legal immunity for consumption of illicit substances and are watched throughout the consumption process by healthcare professionals. With nurses and doctors on site to act immediately in the case of an overdose, SIS have proven extremely effective, with not one lethal overdose being recorded in any of Vancouver's SIS (Hathaway et al 2008).

Despite saving lives and meeting the unique needs of injection drug users, through the lens of governmentality, SIS can be perceived as an important apparatus of surveillance and discipline. Marking a shift from the "punitive repression of injection drug use" (Fischer 2004, 354), to one of harm reduction, since the late 1980s, the implementation of SIS have been a direct response to the global increase in the urban concentration of homelessness, crime, and litter (Flint 2002). Thus, in order to manage the risks associated with this urban demographic, SIS arose in an attempt to reshape urban spaces into socio-political entities of "competitiveness, commodification and attractiveness...regaining its appeal to corporate, young and wealthy citizens" (Fischer 2004, 359). Through a Foucauldian lens of governmentality, this process can easily be

understood as an attempt to manage the risks pertaining to behaviours that not only fail to conform to societal norms but also run astray from the teachings of western biopower that have (or should have) been imparted on drug users. With this comes the ability for SIS, a government-funded institution, to survey and manage risks, with the aim of altering behaviours to fit those of the ideal citizen.

Accompanying the arrival of SIS, many cities experienced a local political movement of heavy gentrification, mobilising "decent citizens and property owners to take back public spaces which had apparently been stolen by the disorderly, deviants and criminals" (Fischer 2004, 359). Within these new and attractive urban spaces, SIS sites became locations of belonging for a community being pushed to the peripheries of society. The SIS can now be seen as a place of exclusion, with drug users being displaced to this one location and treated by the wider community as moral outcasts. This is particularly true for the Downtown Eastside neighbourhood of Vancouver (DTES), the location in which I will be conducting my fieldwork. Neighbouring the city's prosperous financial district, the DTES was a location of immense gentrification in the few years leading to the 2010 winter Olympics (Vanwynsberghe et al 2012). By examining the significance of SIS in regard to individuals' interactions with these sites, with an equal importance placed on the moment in time at which the sites emerged, as well as the timeliness of their interactions, a much more holistic understanding of the motives and consequent outcomes of SIS is achieved. This historical context raises the question as to whether SIS arose truly under the pretence of harm reduction, or whether this

was solely a ploy to up the prestige of the state and keep drug consumption out of the gaze of the public eye.

Furthermore, as a disclaimer, although not within the scope of this paper, for future theoretical analysis of this topic, race should be examined with the context of SIS. Shanklin's (1998) "*The Profession of the Color Blind: Sociocultural Anthropology and Racism in the 21st Century*", highlights the importance of addressing race when racial disparities are undeniably present. The foundations of anthropology are of complicity within the 19th century, colonial obsession in racial essentialism. Anthropology's role was to legitimize these beliefs through science. Therefore, in present-day, many anthropologists display an unwillingness to address racialized issues within the field. Despite this, in British Columbia, with Indigenous populations five times more likely to experience an opioid overdose than non-Indigenous populations (First Nations Health Authority 2018), this is a matter that should unequivocally be attended to by the discipline.

## THE PANOPTICISM OF SIS

With governmentality presenting the external, stigmatising, and politically motivated goals of SIS, this section will describe the internal operations of a SIS. When making the comparison with Bentham and Foucault's panopticon, it becomes clear that the internal operations perpetuate very similar motives.

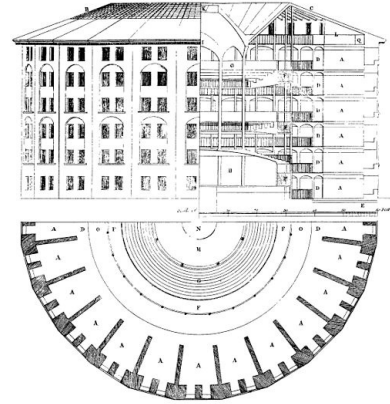


Figure 1: Jeremy Bentham's panopticon penitentiary design (1791) (aleph.humanities.ucla.edu)

The panopticon is an institutional building envisioned in 1791 by the English philosopher Jeremy Bentham. More importantly, however, it is a system of social control. Bentham's idea was adopted by Foucault and used as a metaphor, which he later introduced to his concept of governmentality. The panopticon is a design of a prison, whereby the inmates' cells are ordered in a circular manner with a central observation tower looking in. This design allows for one guard manning the tower to see into all cells at any given time. The inmates, however, cannot see from their cell whether they are being observed or not. This design functions on the presumption that the inmates will, in turn, choose to behave in an orderly fashion due to the potential for constant observation (Crampton et al. 2016). Foucault takes this theory a step further by arguing that speeding cameras, random police checks, and drug tests for government jobs are all part of our panoptic society, whereby the potential for us to be caught ensures that we regulate our own behaviour to that of the 'ideal citizen' (Mckinlay et al. 1998).

Not only is the blueprint of SIS of extreme

resemblance to that of the panopticon, but, the purpose of this design is to ensure that drugs are being consumed in a specific way. All SIS follow a near-identical design. They are medium-sized rooms, typically in a semi-circle with a nurse station in the middle and consumption booths along the outside. Each booth is equipped with a large mirror, allowing one health professional to monitor the activity of each drug user. Additionally, each station has an individual light whose switch is located at the nurse's desk, ensuring that the drug user is always extremely visible. Furthermore, ignoring potential matters of privacy, nurses are instructed to walk around the room and coach the user throughout the consumption process; this ultimately ignores and undermines "many of the distinct social or cultural norms and dynamics embedded in the injection drug user's world" (Fischer 2004, 360; Grund et al. 1996). Using feminist objectivity found in Haraway's "Situated Knowledges" (1988), we see that there is no room left by health practitioners for the knowing of addicts of their own bodies. Whereas nurses are instructing users to consume drugs in a particular way, these individuals may very well have a better intrinsic understanding of what is required for their own bodies, something that science within the context of SIS cannot accept or accommodate. Furthermore, in busy locations, site users are often made to wait in 'chill rooms' before and after consumption where they are berated with information concerning treatment centres and further harm reduction strategies. Their time in each section of the process is controlled and recorded. The description given from both online journals and my own personal experiences of visiting such sites offers great insight on to the true objectives of these government-run health services. With

'harm reduction' being listed as the one and only purpose of SIS, drug users are under constant surveillance whilst simultaneously being subject to advocacy pertaining to the harms of their behaviour:

"The inner operations of SIS present themselves as infinitely detailed and regulated projects of knowing, tempering and reducing the risks related to drug use...factories of health."  
(Fischer 2004, 360)

Both the use of the panoptic metaphor and the analysis of internal operations of a SIS have brought to question the end goals of SIS. Whereas 'harm reduction' is the sole, official motive, one can now suggest that it is ultimately to re-shape wayward citizens back to the formula of a productive, risk-free, healthy subject of the state.



Figure 2: Insite, Vancouver SIS, Vancouver Sun

## POLICE, GOVERNMENTALITY AND THE IMPLICATIONS

When analyzing the police involvement in relation to SIS, police play a vital role, especially when considering their presence through the viewpoint of governmentality. Cross-disciplinary studies have shown that varying methods of policing greatly influence the ability of drug users to access SIS (Debeck et al 2008). These studies indicate that despite the alleged shift in

policy from one of punishment to one of harm reduction, law enforcement across Canada, and in Vancouver specifically, greatly increased their presence in the surrounding vicinity of newly established SIS (Small 2006). As legal sanctity is granted to illicit drug users within these sites and outside the facility they are treated as criminals, logically, a police presence would deter potential users from accessing these sites. As agents of the government, representing the interest of governmentality (discipline and surveillance), should police not be acting in a way that increases the chances of individuals being able to access SIS? In this instance, police are ironically working against the potential political motives of the state. From both the policing literature and my own experience attending public health and law enforcement conferences, police regularly position themselves as being supporters of SIS, despite constantly situating the community in need of this service as criminals and a threat to public order. The two ideals seemingly do not complement one another.

This however, is not the only area of irony pertaining to the management of SIS. Despite employing SIS strictly on the basis of ‘harm reduction’, drug users are still obliged to consume substances gathered from the black market. Within the current drug climate in Canada, and the spread of fentanyl, one would think that a first attempt at reducing overdoses would constitute providing a safe and clean supply. Not only does this render SIS paradoxical in its aims, but similarly represents a failure of these institutions in addressing the “primary cause for death among injection drug users” (Fischer 2004, 360), laced drugs.

This final section has shed light on the irony pertaining to the role of policing within the supposedly unified effort from policy makers, public health officials and law enforcement to promote and render SIS a success. Governmentality has been extremely useful in providing an alternative way to understand this seemingly progressive form of health care intervention. By presenting itself as an empowering facility with “an omnipresent air of concern for at-risk drug users” (Fischer 2004, 361), SIS can successfully be a location for surveillance and discipline without addressing the surrounding structural, physical, and emotional issues that engulf the lives of illicit drug users. Despite claiming the moral aim of ‘harm reduction’, SIS fails to address permanent issues within the lives of addicts, instead tainting them with a sticker, indicating to the world that once they exit that door they go back to being members of a community that is to be marginalized, stigmatized, and not deserving of the same liberties as the rest of the public (Small et al 2007).

## CONCLUSION

In conclusion, this paper has used governmentality to evaluate supervised injection sites (SIS) as a ‘political technology’ and police as extensions of this ‘technology’. Having defined governmentality and shown how the varying forms of power work within it, I contextualized the creation of SIS and ‘harm reduction’ policies as a means of rendering densely populated urban areas with an addicted and severely deprived socio-economic population out of sight from the new wave of affluent urban settlers. Next, we transitioned to evaluating the other potential motives of SIS and their consequences. Gov-



ernmentality positioned SIS as both spaces of exclusion and powerful tools of surveillance and discipline. Thirdly, Bentham and Foucault's panoptic design of state institutions exhibited frightening parallels to that of SIS and demonstrated how this design is not unique to penitentiaries. Lastly, once again using the lens of governmentality, this paper demonstrated how police practices often work in opposition to the

aim of SIS as technologies of control. This suggests that police practices need to be re-assessed to increase their role in promoting SIS use. In light of this pressing national health crisis in Canada, if government control, surveillance, and discipline results in the saving of lives, then on this occasion governmentality should be seen as useful and necessary.

## AUTHOR BIOGRAPHY

Ben Scher completed his BA in Combined Social Sciences at Durham University in the UK and is currently pursuing an MA in Public Issues Anthropology here at the University of Waterloo. His MA research uses a qualitative focus to analyze the relationship between law enforcement and drug users who frequent supervised consumption sites in the Downtown Eastside neighbourhood of Vancouver. In preparation for his fieldwork, this piece acts as both a critical analysis and philosophical evaluation of this health care intervention. In light of the current fentanyl epidemic in Canada, Ben is passionate about furthering public knowledge surrounding harm reduction strategies and producing research that can inform on progressive public policy initiatives such as supervised consumption sites.

## WORKS CITED

- Canadian Centre on Substance Use and Addiction: “Costs Of Substance Use In Canada — CCSUA”. 2019. *Ccdus.Ca*. <http://www.ccdus.ca/Eng/topics/Costs-of-Substance-Abuse-in-Canada/Pages/default.aspx>.
- Canadian Institute on Health Information: “Latest Data On The Opioid Crisis — CIHI”. 2019. *Cihi.Ca*. <https://www.cihi.ca/en/latest-data-on-the-opioid-crisis> Clifford, Nicholas, et al., eds. *Key methods in geography*. Sage, 2016.
- Crampton, Jeremy W, and Stuart Elden. 2016. *Space, Knowledge And Power*. 4th ed. London: Routledge. URL: [https://www.researchgate.net/publication/286878830\\_Introduction\\_Space\\_knowledge\\_and\\_power\\_Foucault\\_and\\_geography](https://www.researchgate.net/publication/286878830_Introduction_Space_knowledge_and_power_Foucault_and_geography)
- DeBeck, Kora, Evan Wood, Ruth Zhang, Mark Tyndall, Julio Montaner, and Thomas Kerr. 2008. “Police And Public Health Partnerships: Evidence From The Evaluation Of Vancouver’s Supervised Injection Facility”. *Substance Abuse Treatment, Prevention, And Policy* 3 (1): 11. doi:10.1186/1747-597x-3-11. URL: <https://www.ncbi.nlm.nih.gov/pubmed/18462491>
- First Nations Health Authority. 2018. “Overdose Data And First Nations In BC: Preliminary Findings”. Vancouver. URL: [http://www.fnha.ca/newsContent/Documents/FNHA\\_OverdoseDataAndFirstNationsInBC\\_PreliminaryFindings\\_FinalWeb.pdf](http://www.fnha.ca/newsContent/Documents/FNHA_OverdoseDataAndFirstNationsInBC_PreliminaryFindings_FinalWeb.pdf)
- Flint, Colin. 2002. “The Theoretical And Methodological Utility Of Space And Spatial Statistics For Historical Studies: The Nazi Party In Geographic Context”. *Historical Methods: A Journal Of Quantitative And Interdisciplinary History* 35 (1): 32-42. doi:10.1080/01615440209603142. URL: <https://www.tandfonline.com/doi/abs/10.1080/01615440209603142>
- Foucault, Michel. 1980. *Power, Knowledge*. 1st ed. New York [u.a.]: Harvester Wheatsheaf. URL: [https://books.google.ca/books?hl=en&lr=&id=Aqf309sk\\_EsC&oi=fnd&pg=PR7&dq=foucault+power+knowledge&ots=U8YkBJFQ11&sig=0EIdIp7Fu5XbMc8UbPJZRT1Jtn8#v=onepage&q=foucault%20power%20knowledge&f=false](https://books.google.ca/books?hl=en&lr=&id=Aqf309sk_EsC&oi=fnd&pg=PR7&dq=foucault+power+knowledge&ots=U8YkBJFQ11&sig=0EIdIp7Fu5XbMc8UbPJZRT1Jtn8#v=onepage&q=foucault%20power%20knowledge&f=false)
- Foucault, Michel, François Ewald, Alessandro Fontana, and Michel Senellart. 1977. *Security, Territory, Population*. 1st ed. Basingstoke: Paris. URL: <http://www.azoni.nl/platform/wp-content/uploads/2013/04/Foucault-Security-Territory-Population.pdf>
- Foucault, Michelle. 1991. *The Foucault Effect: Studies In Governmentality*. 1st ed. Chicago: The Chicago Press.

- Foucault, Michel. 1978. *The History Of Sexuality*. 1st ed. Paris: Editions Gallimard. URL: <https://warwick.ac.uk/fac/arts/english/currentstudents/undergraduate/modules/fulllist/special/endsandbeginnings/foucaultrepressiveen278.pdf>
- “Governmentality: Power And Rule In Modern Society”. 2010. *Choice Reviews Online* 47 (11): 97- 119. doi:10.5860/choice.47-6521. URL: [https://www.researchgate.net/publication/280802922\\_Governmentality\\_Power\\_and\\_Rule\\_in\\_Modern\\_Society](https://www.researchgate.net/publication/280802922_Governmentality_Power_and_Rule_in_Modern_Society)
- Grund, Jean-Paul C., Samuel R. Friedman, L.Synn Stern, Benny Jose, Alan Neaigus, Richard Curtis, and Don C. Des Jarlais. 1996. “Syringe-Mediated Drug Sharing Among Injecting Drug Users: Patterns, Social Context And Implications For Transmission Of Blood-Borne Pathogens”. *Social Science & Medicine* 42 (5): 691-703. doi:10.1016/0277-9536(95)00193-x. URL: <https://www.ncbi.nlm.nih.gov/pubmed/8685737>
- Haraway, Donna. 1988. “Situated Knowledges: The Science Question In Feminism And The Privilege Of Partial Perspective”. *Feminist Studies* 14 (3): 575. doi:10.2307/3178066. URL: <https://philpapers.org/archive/HARSKT.pdf>
- Hathaway, Andrew D., and Kirk I. Tousaw. 2008. “Harm Reduction Headway And Continuing Resistance: Insights From Safe Injection In The City Of Vancouver”. *International Journal Of Drug Policy* 19 (1): 11-16. doi:10.1016/j.drugpo.2007.11.006. URL: [http://cannabiscoalition.ca/info/HarmReductionHeadway\\_Resistance\\_IJDPX2008.pdf](http://cannabiscoalition.ca/info/HarmReductionHeadway_Resistance_IJDPX2008.pdf)
- Ingold, Tim. 1993. “The Temporality Of The Landscape”. *World Archaeology* 25 (2): 152-174. doi:10.1080/00438243.1993.9980235. URL: <https://quote.ucsd.edu/sed/files/2014/09/Ingold-Temporality-of-the-Landscape.pdf>
- Lilja, Mona. 2008. “Power, Resistance, And Women Politicians In Cambodia: Discourses Of Emancipation”. *Politics & Gender* 6 (03): 149-505. doi:10.1017/s1743923x10000206. URL: <https://www.diva-portal.org/smash/get/diva2:857875/FULLTEXT01.pdf>
- McKinlay, Alan, and Ken Starkey. 2000. “Foucault, Management And Organization Theory: From Panopticon To Technologies Of Self”. *Administrative Science Quarterly* 45 (2): 406. doi:10.2307/2667079.
- Shanklin, Eugenia. 1998. “The Profession Of The Color Blind: Sociocultural Anthropology And Racism In The 21St Century”. *American Anthropologist* 100 (3): 669-679. doi:10.1525/aa.1998.100.3.669.

URL: [https://www.jstor.org/stable/682045?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/682045?seq=1#metadata_info_tab_contents)

Small, Will, Thomas Kerr, John Charette, Martin T. Schechter, and Patricia M. Spittal. 2006.

“Impacts Of Intensified Police Activity On Injection Drug Users: Evidence From An Ethnographic Investigation”. *International Journal Of Drug Policy* 17 (2): 85-95.

doi:10.1016/j.drugpo.2005.12.005.

URL: <https://www.sciencedirect.com/science/article/pii/S0955395905001969>

Small, Will, Tim Rhodes, Evan Wood, and Thomas Kerr. 2007. “Public Injection Settings In

Vancouver: Physical Environment, Social Context And Risk”. *International Journal Of Drug Policy* 18 (1): 27-36. doi:10.1016/j.drugpo.2006.11.019.

URL: <https://www.ncbi.nlm.nih.gov/pubmed/17689341>

Vanwynsberghe, Rob, Björn Surborg, and Elvin Wyly. 2012. “When The Games Come To Town:

Neoliberalism, Mega-Events And Social Inclusion In The Vancouver 2010 Winter Olympic Games”. *International Journal Of Urban And Regional Research* 37 (6): 2074-2093.

doi:10.1111/j.1468-2427.2012.01105.x.

URL: <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1468-2427.2012.01105.x>

# Confronting the Obvious: An Epistemological Examination of the Evidence Informing Evidence-Based Medicine

Dinesh Moro

---

## INTRODUCTION

FOLLOWING its rise in popularity through the late 90s and early 2000s, modern medical practice has enthusiastically embraced the idea of evidence-based medicine, or EBM (Claridge and Fabian 2005, 548). It is now the most widely accepted medical model, and that popularity has come with its share of criticism (Greenhalgh et al 2014, Haynes 2002, Cohen and Hersh 2004). With the exception of Maya Goldenberg in her astute work, *On Evidence and Evidence-Based Medicine: Lessons from the Philosophy of Science*, few have examined the fundamental epistemological processes of evidence creation in EBM. The goal of this essay is to offer insight to both clinicians and patients by building upon Goldenberg's work with concrete examples of some of EBM's epistemological issues. In doing so, I will propose that those practicing EBM should scrutinize the nature of knowledge informing their profession so as not to place excessive trust in

clinical research findings. Additionally, health-care practitioners should augment their critical understanding of EBM by discussing its guiding epistemic values and by promoting epistemic humility throughout medicine. I will begin by fully explaining the EBM paradigm before moving into critiques of the model's portrayed objectivity and use of induction, the gold standard afforded to randomized controlled trials, and the label of statistical significance. Finally, I will briefly discuss some of the aforementioned recommendations.

## WHAT IS EVIDENCE-BASED MEDICINE?

Before a critique of EBM can be undertaken, it is important that the reader knows what exactly is meant by the term and which claims about knowledge it implies. EBM is currently accepted as the best-practice model for health-care practitioners to structure patient treatment (Goldenberg 2005, 2621). It is a relatively new

paradigm, having only gained popularity in the late twentieth century (Claridge and Fabian 2005, 548). In 1996, the term was formally defined by McMaster University physician David Sackett as “the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett 1996, 71). Sackett’s evidence-based medicine took influence from Archie Cochrane’s popular 1972 work, *Effectiveness and Efficiency: Random Reflections on Health Service*, similarly placing vital importance on the use of randomized control trials, or RCTs, to assess the effectiveness of treatments (Claridge and Fabian 2005, 552).

In line with its roots, modern EBM emphasizes that healthcare professionals should constantly be updating their knowledge through reading new articles relevant to their practice, with special considerations given to RCTs. Sackett rationalizes that RCTs, and especially systematic reviews of several RCTs, are the gold standard for judging a treatment effect since they are “much more likely to inform us and so much less likely to mislead us” (Sackett 1996, 72). The status afforded to RCTs means that they have been ranked at, or near, the top of nearly fifty hierarchies of evidence (Schünemann 2006, 3). Cohort studies, case-control studies, and case series find themselves lower on these hierarchies, supposedly providing progressively weaker evidence (Burns et al. 2011, 8).

Supporters of EBM believe that by using the scientific method to assess common clinical practices, the efficacy of those practices can be determined. Sharing those experimental results then allows for clinicians to learn from a wider pool of

patient interventions, informing their practice in a way that is more rigorous than relying on personal experience (Timmermans and Mauck 2005, 20). EBM is also thought to reduce the number of irregularities in clinical procedures, replacing them with best-practice guidelines. Ultimately, EBM is seen as a promising way to inform both patients and clinicians by providing them with high-quality evidence, which they can then use to inform their decisions.

In practice, these high hopes for EBM may not be panning out. In 2001, a study was conducted to determine the critical appraisal skills and state of knowledge with regard to EBM in a sample of 286 family physicians from Ontario (Godwin and Seguin 2003, 4). 95% of respondents saw EBM as important to the practice of medicine. However, test scores on general EBM knowledge (including the interpretation of results and research methods) were around 50% with the average score being just 6.4 out of 12 (Godwin and Seguin 2003, 5). Interestingly, younger physicians, aged 25-35, scored higher with an average of 8.2 out of 12 while the oldest cohort, aged 56-65, scored an average of 4.4 out of 12 (Godwin and Seguin 2003, 6). The researchers characterized the results as not impressive, especially given that physicians in the younger cohort would have learnt about EBM as part of their curriculum (Godwin and Seguin 2003, 6). These findings suggest that clinicians need to develop their ability to critically evaluate research. Appropriately, that is precisely the goal of this article.

PHILOSOPHY OF SCIENCE PROBLEMATIZES  
EBM

One of the primary tenets of EBM is that consulting current best evidence will improve patient care. Incumbent in this belief is that not all knowledge can be called evidence. A common perception is that evidence, and scientific knowledge in general, is derived from an adherence to the scientific method and produces facts (Chalmers 2015, *xx*). At a very fundamental level, EBM shares this attitude founded on the positivist principle that “knowledge should be derived from the facts of experience” (Chalmers 2015, 3).

Today, philosophers of science understand that this positivist outlook is not a comprehensive account of scientific inquiry. The first problem is that our observations cannot lead us to objective fact, as they are always to some degree coloured by our past experiences or background knowledge (Chalmers 2015, 7). The truth of this statement can be demonstrated in any radiology department as specialists examining x-rays are able to expound a host of relevant and detailed medical information while a non-trained observer may struggle to determine through which side of the image light is meant to pass (Chalmers 2015, 8). Critically, it can be understood that whenever an observation is made in the pursuit of science, we are observing phenomena not as they exist naturally but through a certain subjective lens. The same holds for medical research: clinical findings cannot be objective in a conventional sense. Researchers must make decisions on what should count as a specific outcome (i.e. whether the change in a patient’s condition should be considered an improvement) and what statistical analyses will best illuminate trends in their data.

It is very difficult to find studies that investigate how clinicians view research and objectivity. However, critiques of medical education have suggested that clinicians are often enculturated into an objectivist perspective by encouraging them to take on the role of “detached observer” when interacting with patients (Wilson 2000, 206). Writing in medical journals rarely contains first-person language, showing that perhaps this detached observer mentality carries on into professional work (Williams 2010, 214). Thus, it may come as a surprise to some clinicians that despite supposedly strong study design, the practice of EBM is not entirely objective or free from personal bias. Clinicians may then be encouraged to re-evaluate the trust they place in research findings.

#### QUESTIONING THE REPUTATION OF RANDOMIZED CONTROLLED TRIALS (RCTs)

The RCT is one of EBM’s most powerful tools. First and foremost, randomized controlled trials are experiments in which one group of patients receives the treatment being studied while a control group of patients receives either the standard treatment or no treatment at all (Macgill and Murrell 2018). The allocation of patients is done randomly in order to prevent the deliberate manipulation of results, although it will be ensured that common clinically relevant factors like age, sex, or ethnicity are evenly represented in both groups (Macgill and Murrell 2018). It is posited that by dividing groups in this way, other unknown but potentially influential variables will be equally distributed as well (Worrall 2010, 359). In short, the claim is made that since RCTs manage to balance all relevant variables between the two groups such that the



only difference between them is whether or not they are receiving a particular treatment, it is the best way in which to measure the treatment effect.

While RCTs have significant methodological strengths, as outlined above, they are not without fault. One of the issues with RCTs is that they require researchers to use background knowledge in the randomization process to create groups that are balanced (Worrall 2010, 358). This means that researchers implicitly evoke hypotheses that may affect the outcome of the experiment. Thus, the main hypothesis (of whether or not a certain treatment is effective) cannot be tested in isolation. This problem is famously known as the Duhem-Quine thesis (Sankey 2019).

To illustrate this phenomenon, consider a researcher who chooses to randomize their population such that the control and treatment groups are balanced with respect to sex, age, and ethnicity. In this case, the researcher is implicitly hypothesizing that sex, age, and ethnicity are the main clinically relevant factors which may have an impact on how the treatment is received. However, it may be that after randomization one group happens to have more subjects who are smokers than the other. In this case, the study is not only assessing whether the treatment is effective, it is also implicitly testing the hypothesis that smoking is not clinically relevant to how a treatment, or lack thereof, affects a subject. This is just one (albeit extremely philosophical) way in which background knowledge informs and complicates the common understanding of RCTs.

More practically, researchers can often do quite well in balancing clinically relevant factors between two groups provided they have strong background knowledge of the condition they are investigating (Deaton and Cartwright 2018, 4). However, when background knowledge is incomplete, it is at least trivially possible that the two groups remain unbalanced in some significant way despite randomization (Worrall 2010, 358).

This insight was illustrated by a large RCT in which 3393 patients with bloodstream infections were randomized to receive either a prayer for their well-being and full recovery or no prayer at all (Leibovici 2001, 1450). The researchers ensured that the treatment and control groups were matched in all relevant factors. Having taken the standard precautions, it came as a great surprise that those in the prayer group's "length of stay in hospital and duration of fever were significantly shorter" (Leibovici 2001, 1450). Without a plausible mechanism in which prayer may act as a viable treatment for bloodstream infections, the researcher admitted that his results must have been influenced by a host of unknown factors and that the experiment was in fact a "non-study" (Worrall 2010, 359). In replying to his own work, Leibovici said that his goal was to encourage readers to question whether they would consider studies that were methodologically correct even if such a study lacked a plausible biological mechanism (Leibovici 2002). Although quite contrived, this high-profile case illustrates how evidence from RCTs cannot always be attributed solely to the treatment itself.

Once RCTs are published, it then becomes important for clinicians to translate that knowledge to their practice. The implicit belief is that

trends observed in a sample group will carry over to patients provided that the studied group is sufficiently large and has similarities to the patients in question. Extrapolating a conclusion in this way is known as induction. However, EBM too often considers only a very small subsection of the population.

The National Institute of Health's Revitalization Act was passed in 1993 with the goal of increasing the number of women and racial minorities participating in research (Oh, 1). However, a 2015 study concluded that most healthcare practitioners and researchers are "informed by research extrapolated from a largely homogeneous population, usually white and male" (Oh, 1). Less than one percent of cancer clinical trials focus on racial or ethnic minority populations, and minority populations were under-represented in cancer research as a whole (Chen et al. 2014, 1093). Cardiovascular research suffers from a similar problem: less than a quarter of studies reported patient race while females made up just 30% of RCT samples (Sardar et al. 2014, 1868-69).

With practitioners of EBM likely treating a much more diverse group of patients, the argument of induction from clinical trials' evidence to general healthcare practice does not always hold. Research participant samples may not align with the characteristics of patients who require care, meaning that clinicians must be wary of transferring insights from research to their practice. In order to improve the applicability of findings, it is imperative that researchers work towards both reporting on and diversifying the make-up of their participant samples.

Here is reason to question EBM's faith in RCTs as the gold standard for evidence. This is not to say that other study designs are more or less appropriate in a clinical setting. However, if a healthcare practitioner adopts a treatment method because it has been proven effective by an RCT, and if they accept EBM's proposition that RCTs provide the best high-quality evidence, they may put more trust in their new protocol than is potentially warranted.

#### THE ROLE OF STATISTICAL SIGNIFICANCE IN EVIDENCE-BASED MEDICINE

One of the ways that healthcare practitioners judge whether or not to follow a new treatment protocol is by looking to see if a study achieves statistical significance. In many medical journals, and in science more generally, statistical significance is commonly represented by a p-value that indicates the likelihood that a certain result could have occurred purely due to random chance. For example, a p-value of 0.025 would suggest that there was a 2.5% chance that the results of the study could have occurred randomly; in this case, the interpreter would conclude that the results were likely due to the effect of the treatment. But at what point is a p-value sufficiently small enough for researchers to decide that the treatment was effective or not? Generally, if the study returns a p-value of greater than 0.05, the result would not be considered statistically significant while a p-value of less than 0.05 would indeed indicate a significant result.

This is problematic for a number of reasons. First, the threshold of  $p \leq 0.05$  may incline healthcare practitioners to develop very differ-

ent beliefs about a treatment based on whether or not it carries the label of statistical significance (Walsh et al. 2014, 623). In reality, a treatment with a p-value of 0.049 is probably not much more effective than a treatment with a p-value of 0.051. Additionally, it is possible that clinicians may put the same amount of faith in studies with similar p-values without considering other indicators of quality in a trial such as the number of events that occurred or the size of the control and intervention groups (Walsh et al. 2014, 623). Of course, not all clinicians may fall into this simplified way of thinking.

The broader issue here is that the p-value offers a dichotomous choice of significant vs. non-significant when it should instead present itself on a spectrum. The first time a threshold of  $p \leq 0.05$  was suggested as a way to determine statistical significance was in Fisher's *Statistical Methods for Research Workers*, published in 1925 (Cowles and Davis 1982, 553). A year later, Fisher made this claim more explicit by saying that "personally, [he] prefers to set a low standard of significance at the 5 per cent point" although others may feel comfortable using a different standard (Fisher 1926, 504). Thus, the choice of which p-value threshold one uses is subjective. If pre-determined thresholds and the significant versus non-significant binary were removed, clinicians who evaluate the data would be better able to appraise the strength of a study's claims on their own terms.

Furthermore, recent research by Walsh et al. has showed that p-values in medical literature are not very stable. This phenomenon has been described by the Fragility Index, a measure that reports the minimum number of patients

whose outcome would have to change in order for a statistically significant result to become non-significant (Walsh et al. 2014, 623). High scores are indicative of a robust study since the p-value would have risen above 0.05 only if a higher number of patients showed different outcomes. Lower scores suggest that the study's results are fragile, as the p-value would have risen above 0.05 if just a few patients had experienced different outcomes. In a systematic review examining 399 trials with a median sample size of 682 patients, it was found that the median Fragility Index was 8 (Walsh et al. 2014, 622). Remarkably, Walsh examined a study that enrolled 2316 patients and reported a p-value of 0.04, yet had a Fragility Index of 1; had just one of those 2316 patient experienced an unfavorable outcome, the study would have lost significance (Walsh et al. 2014, 626). In 53% of trials, the Fragility Index was less than the number of patients lost to follow-up, suggesting that if they had been retained, the treatment may not have been labelled as significantly effective (Walsh et al. 2014, 622).

Although more research needs to be done to properly judge whether medicine suffers from a widespread case of fragile results, these findings do indicate the need for healthcare professionals to look beyond the "statistically significant" label when deciding whether or not to alter their practice. It is thus very important for clinicians to look critically at studies before placing trust in them, if they do not do so already.

Having laid out some concerns with EBM from a philosophy of science perspective, two recommendations for improvement will now be provided.

## 1. CONSIDER EPISTEMIC VALUES

Given how RCTs and p-values can sometimes be misleading, healthcare practitioners and researchers could benefit from a discussion on epistemic values. The term “epistemic values” encompasses what is “acceptable in science as guidance for theory choice”; in this way, the values lay down the standards of evidence in a certain discipline (Douglas 2007, 120). In any clinical study, authors often decide how they will interpret data in accordance with the model of study design they have chosen. However, researchers rarely discuss the reasons behind their methodological decisions to avoid colouring their paper with subjectivity (Douglas 2007, 123). This is not ideal since every choice that a researcher makes in the course of their study could potentially lead to error.

For example, imagine a scenario in which the marker of statistical significance is a p-value of less than 0.02. In this case, treatments would be held to a higher standard and the risk of discounting effective treatments would increase. In the current practice of EBM, the 0.05 threshold encourages practitioners to try potentially beneficial treatments even if they are more likely to fail (or do harm) than a 0.02 threshold would recommend. Clearly, the choice to adopt the 0.05 benchmark must have been the product of a value-based decision that prioritizes the potential benefits of novel action over the potential harms of inaction.

If researchers explicitly stated why they judged their evidence by certain standards and what epistemic values influenced their practical

choice to designate a certain study as statistically significant, it would be easier for EBM practitioners to discuss how epistemic values influenced the confidence with which they applied a new treatment. This is especially important in cases where the treatment falls right on the edge of the threshold for statistical significance.

## 2. STRIVE FOR EPISTEMIC HUMILITY

Another way in which the field of EBM may be improved is by embracing the practice of expressing claims with epistemic humility. This means that healthcare professionals should strive to communicate to patients the degree to which the evidence suggests that a certain claim is accurate, or a treatment is effective (Schwab 2018, 29). This also helps to encourage healthcare practitioners to recognize the uncertainty in their field, and to nuance their professional judgement more carefully than the brutally simplistic dichotomous distinctions of statistical significance or RCT versus non-RCT. Additionally, it may be helpful for patients to become informed about p-values, the Fragility Index, and other common metrics of a study’s strength so that they can make an informed choice regarding their treatment (Schwab 2018, 41). With epistemic humility being such a simple yet powerful addition to a healthcare practitioner’s toolkit, it is undoubtedly a practice that should be more widely encouraged.

## CONCLUSION

What started as a mutter among researchers at McMaster University has turned into a shout echoing across the world of healthcare: evidence-based medicine has come a long way and it is

likely here to stay. Rather than decrying such a meteoric rise in prominence, this essay's philosophy of science analysis was meant to nuance the reader's understanding of current medical practice thus enabling them to navigate the field of EBM as a better-informed healthcare provider or patient. Traditional markers of quality evidence like RCTs and the statistically significant label were analysed, encouraging the reader to carefully examine available evidence in order to adopt the best treatment practices. It is my hope that with these things in mind, both patients and practitioners will be able to make carefully considered decisions and advocate for more openness in the research process.

#### AUTHOR BIOGRAPHY

Dinesh Moro is a student pursuing his undergraduate degree in Knowledge Integration at the University of Waterloo. His interests focus on understanding medicine as both a scientific and social process. *Confronting the Obvious: An Epistemological Examination of the Evidence Informing Evidence-Based Medicine* was adapted from work produced as part of Dr. Kathryn Plaisance's class on the Nature of Scientific Knowledge. It was inspired by the author's own research into the Fragility Index and a budding interest in the philosophy of science. The author is thankful for JIRR's cross-disciplinary focus and its commitment to elevating student writing.

## WORKS CITED

- Burns, Patricia B., Rod J. Rohrich, and Kevin C. Chung. "The levels of evidence and their role in evidence-based medicine." *Plastic and reconstructive surgery* vol. 128,1 (2011): 305-10.
- Chalmers, A. F. *What Is This Thing Called Science?* Hackett Publishing Company, Inc., 2015.
- Chen, Moon S. et al. "Twenty Years Post-NIH Revitalization Act: Enhancing Minority Participation In Clinical Trials (Empact): Laying The Groundwork For Improving Minority Clinical Trial Accrual." *Cancer* 120 (2014): 1091-1096. Web. 8 Apr. 2019.
- Claridge, Jeffery A., and Timothy C. Fabian. "History and Development of Evidence-Based Medicine." *World Journal of Surgery*, vol. 29, no. 5, Springer Nature, Apr. 2005, pp. 547-553. Crossref, doi: 10.1007/s00268-005-7910-1.
- Cohen, Aaron Michael, and William R. Hersh. "Criticisms Of Evidence-Based Medicine." *Evidence-based Cardiovascular Medicine* 8.3 (2004): 197-198. Web. 8 Apr. 2019.
- Cowles, Michael, and Caroline Davis. "On The Origins Of The .05 Level Of Statistical Significance.." *American Psychologist* 37.5 (1982): 553-558. Web. 8 Apr. 2019.
- Deaton, Angus, and Nancy Cartwright. "Understanding And Misunderstanding Randomized Controlled Trials." *Social Science & Medicine* 210 (2018): 2-21. Web. 8 Apr. 2019.
- Douglas, Heather. *Rejecting The Ideal Of Value-Free Science*. Oxford University Press, 2007. Print.
- Fisher, R. A. The arrangement of field experiments. *Journal of the Ministry of Agriculture*, 1926, 33, 503-513.
- Godwin, Marshall, and Rachelle Seguin. "Critical Appraisal Skills Of Family Physicians In Ontario, Canada." *BMC Medical Education* 3.1 (2003): n. pag. Web. 9 Apr. 2019.
- Goldenberg, Maya J. "On Evidence and Evidence-Based Medicine: Lessons from the Philosophy of Science." *Social Science & Medicine*, vol. 62, no. 11, Elsevier BV, June 2006, pp. 2621-2632. Crossref, doi:10.1016/j.socscimed.2005.11.031
- Greenhalgh, T., J. Howick, and N. Maskrey. "Evidence Based Medicine: A Movement In Crisis?." *BMJ* 348.jun13 4 (2014): 1-7. Web. 8 Apr. 2019.

- Haynes, R Brian. "What Kind Of Evidence Is It That Evidence-Based Medicine Advocates Want Health Care Providers And Consumers To Pay Attention To?." *BMC Health Services Research* 2.1 (2002): n. pag. Web. 8 Apr. 2019.
- Leibovici, Leonard. "Effects of Remote, Retroactive Intercessory Prayer on Outcomes in Patients with Bloodstream Infection: Randomised Controlled Trial." *BMJ*, vol. 323, no.7372, BMJ, Dec. 2001, pp.1450-1451. Crossref, doi:10.1136/bmj.323.7372.1450.
- Leibovici, Leonard. "Authors' Reply." (2002): n. pag. Print.
- MacGill, Markus, and Daniel Murrell. "Randomized Controlled Trials: Overview, Benefits, And Limitations." *Medical News Today*. N.p., 2018. Web. 11 Dec. 2018.
- Oh, Sam S et al. "Diversity in Clinical and Biomedical Research: A Promise Yet to Be Fulfilled." *PLoS medicine* vol. 12,12 e1001918. 15 Dec. 2015, doi:10.1371/journal.pmed.1001918
- Plaisance, Kathryn. "Holism" INTEG 220. 04 Oct. 2018, Waterloo, University of Waterloo.
- Sackett David L, Rosenberg William M C, Gray J A Muir, Haynes R Brian, Richardson W Scott. "Evidence based medicine: what it is and what it isn't" *BMJ* 1996; 312 :71
- Sankey, Howard. "Quine-Duhem Thesis." *Philpapers.org*. N.p., 2019. Web. 8 Apr. 2019.
- Sardar, Muhammad Rizwan et al. "Underrepresentation Of Women, Elderly Patients, And Racial Minorities In The Randomized Trials Used For Cardiovascular Guidelines." *JAMA Internal Medicine* 174.11 (2014): 1868. Web. 8 Apr. 2019.
- Schünemann, Holger J., et al. "Improving the Use of Research Evidence in Guideline Development: 9. Grading Evidence and Recommendations." *Health Research Policy and Systems*, vol. 4, no. 1, Springer Nature, Dec. 2006. Crossref, doi:10.1186/1478-4505-4-21.
- Schwab, A. "Epistemic Humility And Medical Practice: Translating Epistemic Categories Into Ethical Obligations." *Journal of Medicine and Philosophy* 37.1 (2012): 28-48. Web. 12 Dec. 2018.
- Timmermans, Stefan, and Aaron Mauck. "The Promises And Pitfalls Of Evidence-Based Medicine." *Health Affairs* 24.1 (2005): 18-28. Web. 8 Apr. 2019.
- Tinker, Ann. "The Top 7 Healthcare Outcomes Measures." *Health Catalyst*. N.p., 2018. Web. 9

Dec. 2018.

Walsh, Michael, et al. "The Statistical Significance of Randomized Controlled Trial Results is Frequently Fragile: A Case for a Fragility Index." *Journal of Clinical Epidemiology*, vol. 67, no. 6, Elsevier BV, June 2014, pp. 622-628. Crossref, doi:10.1016/j.jclinepi.2013.10.019

Williams, Ian A. "Cultural Differences In Academic Discourse: Evidence From First-Person Verb Use In The Methods Sections Of Medical Research Articles." *International Journal of Corpus Linguistics* 15.2 (2010): 214-239. Web. 8 Apr. 2019.

Wilson, H. J. "The Myth Of Objectivity: Is Medicine Moving Towards A Social Constructivist Medical Paradigm?." *Family Practice* 17.2 (2000): 203-209. Web. 8 Apr. 2019.

Worrall, John. "Evidence: Philosophy of Science Meets Medicine." *Journal of Evolution in Clinical Practice*, vol. 16, no. 2, Wiley, Mar. 2010, pp. 356-362. Crossref, doi:10.1111/j.1365-2753.2010.01400.x.



## A White, Jewish, Rap-Infused Desire for Blackness: David Burd's Lil Dicky

Ethan Sabourin

I<sup>N</sup> “On Being ‘White’ and Other Lies,” James Baldwin writes that the Jewish community has “paid the highest and most extraordinary price for becoming white” in America (Baldwin, 1984). Baldwin names the loss of a unique Jewish identity, one that transcends whiteness, as a part of that price. Thirty-four years after “On Being ‘White’ and Other Lies” was published in 1984, the loss of identity continues to haunt American Jews. One of the poster-boys for today’s synthesis of Jewishness and Whiteness is David Burd, a rapper and comedian from a Philadelphia suburb who goes by the moniker, ‘Lil Dicky’. His music is full of Jewish symbols and stereotypes, often in combination with racially-charged language in his lyrics. With an oeuvre that includes *White Dude*, a braggadocious ode to White privilege; *All K*, which features a stereotypical rap video that adds a laundry list of Jewish symbols to its visuals; and *Freaky Friday*, where Lil Dicky switches bodies with Chris Brown for a day, the rapper has significant mate-

rial to suggest a connection between his Jewishness, music, and feelings about race. To unpack Burd’s relationship with race, I will examine his lyrics and music-videos, as well as some secondary writing about him. In this process, I will use strategies from disciplines including visual culture, Jewish studies, and critical race theory. I will argue that David Burd’s position as a privileged, upper-middle class, suburban, White, Jewish rapper has left him with a desire for a version of Blackness that he imagines in his work. Burd’s position as a White rapper pining for Blackness is a symptom of Jewish assimilation. Since “the Jew [became] an American white man . . . in effect, a Christian’ or ceased to be himself,” Burd is forced to search for a new, non-hegemonic identity (Gordon, 2015). Rap has become a popular genre of music, but still has some counter-cultural elements that preclude Burd from becoming a “hardened” or “hyper-masculine” rapper (Burd, 2013). I also argue that since Burd’s music brings that desire

to a wide audience, it has significant implications on his listeners' own relationships to Blackness, especially through rhetorical symbols like the n-word.

Before I start, I will situate myself as a privileged, upper-middle class, suburban, White, Jewish man. Though I did not grow up in Philadelphia and I do not have a stereotypically Jewish appearance, I do share many characteristics with David Burd. For several years, I identified much of my teenaged self in his music, and I still enjoy some of it, albeit critically. I am writing this essay because I am intrigued about the pull of the American White Jewish man towards rap, and Blackness more generally. I have become interested in the high price that Jews paid to become White, as James Baldwin sees it. American, and by extension Canadian, Judaism has lost languages, literatures, homelands, and especially its separated culture, which was cultivated by the shtetls of rural Eastern Europe, the ghettos of urban Europe, and the neo-ghettos (for example, the Lower East Side and Kensington Market) of the Americas. What Jews attempt to replace that culture with is important, because it is creating direction for the future of Jewish culture. I recognize that I am focusing on Ashkenazi Jewry, which represents the majority of American and White Jews. I am choosing to do so both because it is expedient and because it represents Burd's Judaism.

#### DAVID BURD, AND OTHER JEWISH RAPPERS

David Burd grew up in Cheltenham, Pennsylvania, a suburb of Philadelphia, to a Jewish family. He attended Cheltenham High School, which has a student population that is mostly

non-White (Friedman, 2015). Importantly, he took part in the seminal American Jewish ritual of Bar Mitzvah, where he made enough money in gifts to eventually start his rap career. He also attended summer camp called Camp Kweebec, which was mostly attended by Jewish campers (Hoffman, 2015). After graduating from the University of Richmond, Burd went on to work at an advertising firm, where he realized that he could use rap to make his dream of being a comedian come true. He released his first mixtape, "So Hard" in 2013, and "quit a f\*\*\*ing job where I was making triple digits then the comma got involved" to pursue rap full-time (Burd, 2015).

Having formative Jewish experiences, being "raised reform," and "believ[ing] in the value of taking part in the religion from a family bonding, cultural perspective," gave Burd enough of a background that themes of Jewishness have been central in his music, unlike other Jewish rappers such as Action Bronson or Mac Miller (Burd, 2014; Bernstein, 2016). While Mac Miller has had these same quintessential American Jewish experiences (and loves his grandmother's kugel), he does not often utilize Jewishness in his music (Berstein, 2016). On the other hand, Action Bronson, who was raised as a Muslim, often slides some Jewish content into his raps, though it certainly never becomes central. Bronson is "an original American hybrid" according to Tablet Magazine, a Jewish publication with a strong focus on culture (Bernstein, 2016).

If Bronson's background makes him a hybrid, it begs the question of what Burd's background makes him. In the same Tablet article, Burd is characterized as the most "openly, deliberately Jewish" mainstream rapper of all time

(Bernstein, 2016). Burd is not considered a hybrid, but a full-fledged American Jew. However, as James Baldwin notes, that same Jewishness has paid a deep price (Baldwin, 1984). The American Jewish community has turned its back on the non-White history of European Jews (Baldwin, 1984). In the process of becoming White, the community has “divested [itself] of the power to control and define [itself]” (Baldwin, 1984). Burd is part of a dominant Jewish culture, which has assimilated (and been assimilated) into American Whiteness, from its previous, non-White designation in European societies (Gordon, 2015). Though leaning on Jewish symbols and stereotypes in his music, I believe that Burd is not using Judaism to grant him cultural capital in the world of rap: I will argue for this with a close reading of his music. While many of his songs illustrate the ways that his Whiteness gives him privilege, his Jewishness is most often used as a punchline, or an allusion to wealth. In this way, Burd might reflect a larger trend of identifying with Judaism through self-deprecating humour, à la *Curb Your Enthusiasm*, or through shallow and stereotypical tropes.

#### *All K*: JEWISH IMAGES AND ACCEPTANCE

In his song, *All K*, Burd’s Lil Dicky is showing off his rapping ability while also incorporating a variety of Jewish imagery into his flow. He begins the song with “Aye, this gon’ be the shit that when motherf\*\*\*ers hear it/They gon’ be like ‘Damn, that dude can rap’” setting the scene for him to prove himself as a rapper (Burd, 2013). He proceeds with lines such as “You know what it is, I’m a maf\*\*\*n K-I-K-E/You don’t play wanna play D” and “You can find

a cracker getting paid like a seder.../Whoa, afikoman in a flow, das a pro” (Burd, 2013). Burd parodies his Jewishness by comparing it to the imagery of Black American rap. Instead of using the n-word and indulging in the accepted excesses of contemporary rap music, Burd carefully reconstructs these tropes with Jewish ones. Some more examples come in the second verse, when he mentions *kabballah* and alludes to money through the image of *challah*. These lines, “Whatchu know about a balla/Born and raised on the *kaballah*/Tryna make a dollar, until I’m cakin and stackin *challah*,” sound like serious rap in context, but when focusing on the lyrics, it is obvious that Burd is leaning into his Jewishness for the sake of a comedic comparison with Black America (Burd, 2013). Burd is able to mine some of the tension between White, suburban Jewish symbols, and the urban, “hardened” and “hyper-masculine” world of Black rap (Burd, 2013). This reflects an ironic distance between White-American Jewish life, and Burd’s representation of Black American culture.

*All K*’s video is even more explicit, starting with an intro that explains much of Burd’s feelings toward himself and the largely Black world of rap. First he explains that, though “the ‘n’ word is the most commonly uttered noun in hip hop...he cannot say it” (Burd, 2013). Next, he calls himself a “mild mannered Jewish boy” struggling for acceptance “in a rap landscape littered with hardened criminals, hyper-masculinity, and irrational swagger” (Burd, 2013). This opening firmly situates Lil Dicky, and his Jewishness, as somewhat unwelcome intruders into rap. The video feeds off of this theme of intrusion, while slowly showing Lil Dicky moving into the East Oakland neigh-

bourhood he is filming in. Though he is initially chased by a group of Black men, using a typical ‘thug’ stereotype, he works his way into the Black community, even while carrying Manishevitz in his brown bag and handing out “Jewish bread” (matzo) (Burd, 2013). By the end of the video, Dicky is dancing in front of a synagogue together with the same people who chased him, and exclaiming, “If they can say the n-word/I sure as f\*\*\* can say Kike” (Burd, 2013). His use of Jewish symbols, whether as set pieces, props, or lyrics, along with the focus on replacing the n-word with ‘Kike’ show his commitment to using his Judaism as a parodic stand-in for Blackness. *All K* also imagines some of the Blackness that Burd aspires to: entering the stereotypically ‘hood’-looking group that chases him at the beginning is part of that Blackness, another part is the attention of Black women that Burd features prominently in the video. He is parodying common tropes of rap videos, which often feature sexualized Black women. At the same time, he seems to be honestly frustrated that he can only parodistically star in a stereotypical rap video. As Burd says, he can’t say the n-word, so he looks for the next best thing. *All K*’s video is part of the Jewish-Black crossover that Burd is looking for in his music; it is his visual rendering of word ‘Kike’ as a semi-serious rap term (Burd, 2013).

#### *White Dude*: PRIVILEGE AND THE OUTSIDER

*White Dude* (2013) is another important song to understand Burd’s thoughts about race. The song is explicitly an ode to the privileges afforded to White men, but also factors in some of the benefits of being upper-middle class, and by extension, being Jewish. Burd has often con-

flated the two parts of his identity, such as with the line, “Now we rollin’ in this mothaf\*\*\*in dough/that’s that Jewish flow” in his song “Jewish Flow” (2013). In *White Dude*, Lil Dicky clarifies that he is not “just disparaging black people,” rather, he is just “happy that I’m white” (Burd, 2013). While he is reveling in not having to “worry where the cops at” or “wear a f\*\*\*ing bra strap,” Burd is naming the kinds of structural systems that prop up White men (Burd, 2013). From mass incarceration (“I ain’t black or Dominican, not Hispanic or Indian/So imprisonment is not a predicament”), to food deserts (“Where I’m eating when I’m high’s where they eat at to survive/food chains”), racist admissions policies at universities (“I mean I could underachieve my way into any college in the country”) and more obvious racism (“I’m white/Which is like, amazing because/Everybody naturally assumes I’m a great person/I get a fair shot at the life I deserve”), Burd explains the ways that the United States of America is built to advantage White men above any other groups, particularly Black men and White women (Burd, 2013). Though I am not certain of Burd’s intentions, he is acknowledging the safety and luxury that have been afforded to him as a White man, even though he is Jewish. In the essay “What should Blacks think when Jews choose Whiteness,” Jane Gordon argues that European Jews have to “recogniz[e] their own whiteness and more generally that the European serf had created another serf in the New World. . . on the basis of color” (Gordon, 2015). Burd, therefore, might be taking a step towards the Jewish communal realization that European Jews are, in America, fully white.

*White Dude* often seems like it contradicts the idea that Burd desires Blackness. It out-

lines many hardships of being black in America, and celebrates the privileges that Burd himself enjoys. It suddenly becomes clear during his outro that, no matter how much his Whiteness benefits him, it also lowers his status as a rapper. His prohibition from using the n-word, even while “Fat Joe, and.../other [rappers] of Hispanic descent [are] allowed to say the n-word” is frustrating (Burd, 2013). In the song, Dicky’s reasoning for wanting to use the word is because “if I could say the n-word, it would really help my/rhyme scheme out/It’s like the perfect filler word” (Burd, 2013). But it represents more than just his proficiency at rhyming. The n-word is a symbolic barrier to Burd’s becoming a legitimate rapper. It represents his Whiteness holding him back from his dreams of being famous and successful. In this song, which never mentions Burd’s Jewish identity, Burd is writing about himself as a conventional White American. He does not feel like his Jewishness makes him an outsider from Whiteness, but, as in *All K*, he feels like an outsider from rap. Burd is looking for acceptance. In *All K* it is an acceptance into the East Oakland Black community, and in *White Dude* it is an acceptance into the Black American world of rap. Yet in neither song does Burd think deeply about the ways that his privilege granted him the opportunities, whether time, money, or job stability, that have allowed him to pursue rap professionally.

#### *Freaky Friday*: EMBODYING BLACK AND GAINING PERMISSION

Finally, in March of 2018, Burd released a song where Lil Dicky uses the n-word. He has reached a point in his career where he can collaborate with major hip-hop artists, and he

does exactly that on *Freaky Friday* (2018). The premise of this song mirrors that of the 2003 film starring Jamie Lee Curtis and Lindsay Lohan, where their two characters switch bodies for a day. After Lil Dicky is accosted by a fan in a Chinese restaurant, the restaurateur switches his body with Chris Brown’s. Waking up in Chris Brown’s body is astounding to Dicky, who is excited about “tattoos on my neck”, connections with Kanye, and his “dream dick” (Burd, 2018). However, what excites him the most is a realization he has about the n-word: Dicky, in Chris Brown’s body and with Brown’s voice, raps “Wonder if I can say the n-word/Wait, can I really say the n-word?/What up, my n\*\*\*\*? What up, my n\*\*\*\*?.../‘Cause I’m that n\*\*\*\*, n\*\*\*\*, n\*\*\*\*, n\*\*\*\*” (Burd, 2018). Though Lil Dicky does use the word, Burd has not achieved all of the Blackness and acceptance that he is looking for in *All K* and *White Dude*. *Freaky Friday* contains none of the Jewishness he was using as a substitute in *All K* but does acknowledge some of the privilege of being White, like in *White Dude*. Even though Lil Dicky switches bodies with Chris Brown and receives all of his rap-and-race-related privileges, Burd is stuck as the nebbish, White, Jew.

#### CONCLUSION

Burd finds ways in his music to circumvent his outsider status as a White person in the world of rap, but can never fully mend the loss that the entire American Jewish community went through as it gained its Whiteness. While sticking Lil Dicky into Black American situations, like East Oakland, or Chris Brown’s body, he attempts to capture some Blackness, but doesn’t ever acknowledge the history of

American Judaism as a counter-cultural religion/ethnicity that often acted in solidarity with Black movements. When reading Baldwin's "On Being 'White' and Other Lies," I considered what it might mean for the Jewish community to reestablish itself as existing outside of Whiteness, to return to what Baldwin thinks the community has lost. Dave Burd has provided, with the three songs I have dealt with in this essay, poor examples how to go about this process. Burd's music is desirous of the cultural capital of Blackness. Jane Gordon, citing Baldwin, explains that White people need to go through a process of "honest self-reflection" which would "release white people[them] from 'the Negro's tyrannical power over [them]'" (Gordon [quoting Baldwin], 2015). Baldwin sees the power and creativity of Black culture as something that White people can only be jealous of until they reckon with and try to repair the damage done in the name of Whiteness (Gordon, 2015). In *All K*, instead of trying to capture the aspects of Jewishness that could bring him closer to Blackness, Burd uses it as a parodic device, only allowing him to enter East Oakland superficially. In *White Dude*, he celebrates his race, gender, and economic-class, while simultaneously pining (or possibly whining) about being relegated to the edges of rap music. *White Dude* is not "disparaging Black people," but it is not building bridges, or allowing Burd to move out of his Whiteness. *Freaky Friday* sees Lil Dicky finally able to say the n-word, but the song makes it

clear that Burd is looking for acceptance into Blackness because he wants to commodify it. He uses Dicky/Brown's repetition of the n-word as the ultimate racial gag. In the Genius video "Freaky Friday & Lil Dicky's History with the N-Word," Genius calls his switching bodies with Brown a "loophole" (Genius, 2018). The video also ends on a particularly difficult note, with a cell phone video capturing a bus full of white women, all actively singing out Dicky/Brown's line "I'm that n\*\*\*\*" (Genius, 2018). The cell phone video shows that Burd is not only overstepping his bounds when he writes the n-word onto Lil Dicky's character, but he is giving an 'Ok' to many white people to sing along with Dicky/Brown.

To conclude, Burd demonstrates through his music, and the videos that accompany it, that he is trying to reconcile his own identity with a Blackness that will allow him to achieve the highest possible level of success in the rap industry. He is unconcerned with the history of Jewish oppression in America, or that of Black-Jewish relations. The use of his songs as 'Ok's by the White world don't bother him either. He desires Blackness because he sees his lack of cultural capital as a barrier to success. He does not seem to realize how deeply his Whiteness, and his Jewishness, have helped him reach his current status as a popular and reasonably successful rapper.

#### AUTHOR BIOGRAPHY

Ethan Sabourin is a student in the Department of Knowledge Integration at the University of Waterloo. He is pursuing minors in Jewish studies, cultural studies, and philosophy. This piece about Lil Dicky is a product of his years spent listening to the Jewish rapper. Ethan is passionate about Judaism, having gone to a Jewish school for sixteen years and volunteering on the Hillel

Executive board at his university. Ethan also loves music, attending his first festival as a two-month old. Thanks to the magic of Twitter, he has found himself connected to a broad network of Jewish people who are concerned with issues of justice, and who are questioning the function of Jewish Whiteness in their communities. He wanted to bring his interests together for this essay. By analyzing Lil Dicky's work for Professor Shannon Dea's class on the Philosophy of Race, Ethan was able to synthesize his knowledge from multiple disciplines. He also drew on his own personal history as a Jewish sometimes-fan of Lil Dicky. It is in this combination of the academic and the personal where Ethan finds the motivation to write.

## WORKS CITED

- Baldwin, James. "On Being White and Other Lies," 1984. *Black on White: Black Writers On What It Means To Be White*, David Roediger, Schocken Books, 1998.
- Bernstein, Jesse. "Jewish Rap Kingpins and the Politics of Musical Identity." *Tablet Magazine*, 22 Sept. 2016, [www.tabletmag.com/jewish-arts-and-culture/music/212931/jewish-rap-kingpins](http://www.tabletmag.com/jewish-arts-and-culture/music/212931/jewish-rap-kingpins).
- Burd, David. "I Am Lil Dicky, I'm a Professional Rapper, and I Go on a Lot of Tinder Dates. Ask Me Anything." *Reddit: the Front Page of the Internet*, 11 Dec. 2014, [www.reddit.com/r/IAmA/comments/2ozjms/i\\_am\\_lil\\_dicky\\_im\\_a\\_professional\\_rapper\\_and\\_i\\_go/](http://www.reddit.com/r/IAmA/comments/2ozjms/i_am_lil_dicky_im_a_professional_rapper_and_i_go/).
- Burd, David. "Lil Dicky - All K." *Funny Or Die*, 12 June 2013, [www.funnyordie.com/videos/c263a2ab83/lil-dicky-all-k](http://www.funnyordie.com/videos/c263a2ab83/lil-dicky-all-k).
- Burd, David. "Lil Dicky - All K." *Genius*, 2013, [genius.com/Lil-dicky-all-k-lyrics](http://genius.com/Lil-dicky-all-k-lyrics)
- Burd, David. "Lil Dicky – The Antagonist." *Genius*, 31 July 2015, [genius.com/Lil-dicky-the-antagonist-lyrics](http://genius.com/Lil-dicky-the-antagonist-lyrics).
- "'Freaky Friday' & Lil Dicky's History With The N-Word." *Genius*, 29 Mar. 2018, [genius.com/videos/Freaky-friday-lil-dickys-history-with-the-n-word](http://genius.com/videos/Freaky-friday-lil-dickys-history-with-the-n-word).
- Friedman, Andrew. "Mac Miller, Lil Dicky and the White Rapper Problem." *FACT Magazine: Music News, New Music.*, FACT Magazine, 26 Oct. 2015, [www.factmag.com/2015/09/29/mac-miller-white-rappers/](http://www.factmag.com/2015/09/29/mac-miller-white-rappers/).
- Gordon, Jane Anna. "What *Should* Blacks Think When Jews Choose Whiteness?: An Ode to Baldwin." *Critical Philosophy of Race*, vol. 3 no. 2, 2015, pp. 227-258. *Project MUSE*, [muse.jhu.edu/article/587984](http://muse.jhu.edu/article/587984).
- Hoffman, Sue. "Management All in Family at Blue Streak and Camp Kweebec." *Cleveland Jewish News*, 3 May 2015, [www.clevelandjewishnews.com/special\\_sections/camp/management-all-in-family-at-blue-streak-and-camp-kweebec/article\\_5963f1a2-9341-11e2-a7b1-001a4bcf887a.html](http://www.clevelandjewishnews.com/special_sections/camp/management-all-in-family-at-blue-streak-and-camp-kweebec/article_5963f1a2-9341-11e2-a7b1-001a4bcf887a.html).



# Alone and Anxious: Addiction to Work as an Adaptation to Postmodern Dislocation

Anna Buhrmann

---

## INTRODUCTION

THE majority of Canadians work upwards of forty-five hours per week, and nearly one third of Canadians identify themselves as being addicted to work (Duxbury & Higgins, 2013, p. 6; Keown, 2008, p. 28). This essay investigates the question: to what extent does the concept of addiction to work shed light on society's anxieties? By examining values underpinning the free market economy and how they affect the daily rhythm of human life, I argue that the pressures of postmodern life dislocate individuals within their social context. In a need to alleviate the anxieties stemming from this instability, individuals often work excessively to establish a sense of identity and security. An unbalanced amount of work, however, exacerbates not only a person's fears but their compulsivity to work, multiplying the detrimental effects on their daily lives. In sum, because workaholism further dis-

tances us from social rootedness, it is crucial to question cultural acceptance of excessive focus and time spent on work.

## ALONE AND ANXIOUS: ADDICTION TO WORK AS AN ADAPTATION TO POSTMODERN DISLOCATION

Rob Dubé is a confessed workaholic. He wakes up at 5:45 a.m. and grabs coffee on the road to the first of his two offices. He sometimes drives with his left knee on his commute since that frees him to check his emails and leave voicemails. He shares: "I thrive in chaos... the crazier it gets, the more budget cutbacks there are, the more restrictive timelines are, the more unrealistic the workload, the *better* I can do. And in a totally sick way I love it" (Menzies, 2005, pp. 76-77).

---

<sup>1</sup>Due to the limited scope of this paper, I will focus on the implications of the concept of addiction to work within a specifically Canadian context.

As an individual with an excessive drive to work, Rob has plenty of company in our society (Killinger, 1991).<sup>1</sup> To be fair, not every workaholic exhibits such an extreme lifestyle. Additionally, a compulsive, consuming need to work is not the only reason why someone may be working long hours (Ksiazak, 2014). A definition given by a recent review of workaholism literature illuminates what, exactly, this term signifies:

an addiction to work that involves feeling compelled or driven to work because of internal pressures, having persistent and frequent thoughts about work when not working, and working beyond what is reasonably expected (as established by the requirements of the job or basic economic needs) despite potential negative consequences (Clark, Michel, Zhdanova, Pui, & Baltes, 2016, p. 1840).

The review found that, rather than being associated with better performance or greater satisfaction with employment, workaholism was related to “burnout, job stress, lower job satisfaction, and poorer emotional/mental and physical well-being.” More unexpectedly, instead of raising the profitability of their employers, workaholics may actually cost them more due to reduced health (p. 1864). In Canada, the average hours of work in a week has been rising since 1991, with 68% of men and 54% of women putting in upwards of 45 hours per week (Duxbury & Higgins, 2013, p. 6). Disquietingly,

the most recent numbers from Statistics Canada indicate that nearly one third of working Canadians between the ages of 19 and 64 self-identify as workaholics, a proportion which has not shifted since 1992, when data on the subject was first collected (Keown, 2008, p. 28).<sup>2</sup>

The concept of an addiction to work has garnered some response. For example, those afflicted might be diagnosed on the Bergen Work Addiction Scale (BWAS) by a clinician and receive therapy (Andreassen, Griffiths, Hetland, & Pallesen, 2012; Andreassen, 2013, p. 7). Alternatively, workaholics might opt to join Workaholics Anonymous, an organization modelled after Alcoholics Anonymous whose purpose is to share a message of recuperation with suffering workaholics (2018). However, overall movement towards addressing workaholism is limited, which is especially surprising considering how work dominates our daily lives and how many of us perceive it as an addiction. Why are we not more curious about investigating the nature of work in our society, and its potential to develop into a harmful, compulsive behaviour? This hesitation suggests that the root of the problem may lie closer to home than we would prefer – in short, we are all too busy working to talk about it.

In this essay, I will argue that examining the addiction to work sheds light on the causes and consequences of our society’s unspoken anxieties. These anxieties are collective apprehensions about the meaning and security of our lives that are difficult to locate as the dimensions and

<sup>2</sup>As far as I could find, this survey, which relied on the self-identification of participants, is the only source of statistics describing rates of workaholism in Canada. The rarity of data signifies a lack of recognition of addiction to work in our social context, and this arguably unreliable method of collecting data suggests that we only find the concept of an addiction to work meaningful when it impacts us on an individual level. Workaholism, therefore, may be highly likely to be viewed as inconsequential in the public sphere.

demands of our postmodern world continuously shift under the dictates of free markets. As technological advancement and the acceleration of time pressure us into increasing isolation, devoting more time and energy to our jobs can become a coping mechanism for our anxieties, pulling us further into an addiction that decreases our personal health and social rootedness, yet multiplies our fears.

## I: AN AGE OF DISLOCATION

Karl Marx (as cited in Crary, 2013, p. 64) noted in 1858 that “capital by its nature drives beyond every spatial barrier.” His prediction strikes a chord in our incessantly enlarging world (Crary, 2013, p. 8), where “lives... are made and unmade according to the dictates and whims of the market” (Berlant, 2011, p. 192), and “carefully engineered management, advertising, and mass media indoctrination keep people performing their market functions at an optimal rate” (Alexander, 2001 p. 9). In recent decades, the pace of technological change has heightened the extent to which an individual is dislocated in space and time (Hassan 2009). As Jonathan Crary notes, the ceaseless functioning of economic and information systems permits uninterrupted modelling of communal and personal identity. Consequently, the individual lives in a constantly disorienting environment that “has the semblance of a social world, but... is actually a non-social model of machine performance and a suspension of living that does not disclose the human cost required to sustain its effectiveness” (9). In sum, the rhythms of the market reshape the ground under our feet while we attempt to remain standing in a shifting postmodern world.

The ensuing expense to the individual unfolds daily in the absence of time to reflect, plan, socialize, and attend to personal well-being (Hassan 2009, p. 107). As a result, market forces “deliberately [undermine] the countervailing influences of social structures that spontaneously arise in offices, factories, modern families, etc.” (Alexander, 2001, p. 9). The loss of “rootedness in the rhythm of and rituals of shared time and space” results in the systematic curtailing of “myriad intimate ties between people and groups” (Menziès, 2005, p. 85; Alexander, 2001, p. 1). Professor Bruce Alexander, who argues that disorientation necessarily precedes addiction (2001, p. 5), labels these shifts as a “universal dislocation” (p. 4) that sets the stage not only for a “generalized pathology of anxiety” (Hassan, 2009, p. 107) but for broad-sweeping addictions that attempt to make life at least liveable, given the conditions. Among potential substitute lifestyles, a compulsion to relentless work offers a relatively profitable mechanism for coping with the demands of postmodernity.

## II: WORKAHOLISM AS A SUBSTITUTE LIFESTYLE

A consuming devotion to work flows from the anxiety-inducing conditions experienced by those subject to the pressures of technology and the free market. For instance, the security of jobs in Canada is increasingly volatile. Francis Fong, the Chief Economist of Chartered Professional Accountants Canada, noted in a recent report that “increasingly full-time, full-year work is giving way to more precarious arrangements that lack the same pay, benefits, and protections enjoyed by previous generations” (2018, p. 2). Indeed, the drive of employees to work hard

despite these conditions reveals concerns about instability (Hassan, 2009, p. 106).

Furthermore, the around-the-clock nature of trading on the stock market, and thus the economy, normalizes labouring without interruption or boundaries (Crary, 2009, p. 10). The mobility of technology compounds employment demands by blurring spaces and time devoted to work with the rest of the life of the employee. For instance, the 2012 National Study on Balancing Work and Caregiving in Canada found that more than half of those surveyed supplement their normal job hours with weekends and evenings spent completing work at home. (Duxbury & Higgins, 2013, p. 4). Notably, this practice panders to workaholics (Stearns, 2008, p. 166). With incessant email notifications, phone calls, and digital to-do reminders, the present becomes an opportunity for perpetual productivity, increasing compulsion to work, as well as the anxiety of spending time away from it (Menziez 2005).

Not only does a need to be excessively productive stem from the troubling omnipresence of work, but it also reflects deeper concerns relating to our unstable identities as dislocated people. Our worth, in the eyes of others, is heavily defined by what we do. It is telling that Global Affairs Canada advises the following to newcomers to Canada looking for conversation starters: “the first question on first contact will be: what do you do? Work/occupation is important to Canadians, and it is also a social marker; it is what separates and defines a person in relation to another” (Centre for Intercultural Learning, 2018, para. 2). Alexander draws attention to how occupational pursuits, even if they constitute harmful, compulsive consumption and dis-

tribution of drugs, allow dislocated individuals to achieve a form of self-actualization (2001, p. 18). If this is the case for a pursuit laden with stigma in the Canadian context, how much more does work, which occupies a glorified position, have the capacity to function as a substitute lifestyle when exalted (Killinger, 1991, p. 7)?

In addition to connoting value, working enables us to establish an integral part of the identity of any postmodern individual: the consumer. While judging individuals according to their wealth is hardly a new social phenomenon, free-market society situates the possession of goods among the highest of virtues. In these circumstances, working more gives us more money to spend, and market growth ensures no end to potential new purchases. Crary characterizes the driving force in this process as “the portent of social and economic failure – the fear of falling behind, of being deemed outdated” (2013, p. 46). Significantly, he notes that the current demand for bigger and better is accompanied by a refashioning of “seemingly irreducible necessities of human life into . . . financialized forms” (2013, p. 10). In other words, our environment of dislocation posits work not only as the fulfilment to our need for self-realization, but defines basic human needs like food and drink in such a way that makes us think we must meet them by working more than is actually necessary. As such, a workaholic lifestyle promises to meet all of our desires, as well as our needs.

### III: THE VICIOUS CYCLE

Excessive work offers to relieve the worries growing from the hectic pace of postmodern life and the penetration of technology into ev-

ery context; it promises status to soothe our troubled sense of self and to satisfy our desires. Over time, however, workaholism exacerbates these anxieties while leading to new sources of stress. For instance, although time can be harnessed to unhealthy amounts of work, increased job responsibility is accompanied by increased pressure. Analyst Leslie-Anne Keon comments in a study of Canadian work addicts that fears about time mobilize their addiction, noting that they perceive time management to be beyond their control (2008, p. 29). With no definite end to the opportunities for productivity and profit, those hooked on work may seek out new challenges on the job to increase their adrenaline rush from overworking (Griffiths, 2011, p. 744). Since work is positioned in a socially favourable light, exerting more effort becomes the answer to any dilemma (Oates, 1971, p. 13). As many work longer hours to stay on par with standards of capital, the stress of consumer debt can manifest within homes and at a national level; paradoxically, a high benchmark for wealth can be used to justify longer work hours (Stearns, 2008, pp. 146, 159).

In response to this lack of psychosocial integration, choosing to work excessively perpetuates the detriment of the worker. Research shows that maintaining personal health is difficult when working long hours, even in the absence of an addiction to work. Large volumes of time spent sitting, the standard for many different kinds of work, is linked to increased risk of mortality (Diaz, et al., 2017, p. 465). The last frontier facing the free market is sleep; Caray characterizes this need to rest as an “intolerable affirmation that there might be limits to the compatibility of living beings with the

allegedly irresistible forces of modernization” (2013, p. 13). Yet the amount of sleep we get is dwindling: “the average North American adult now sleeps approximately six and a half hours a night, an erosion from eight hours a generation ago, and (hard as it is to believe) down from ten hours in the early twentieth century” (2013, p. 11). Approximately 57% of working Canadians, many of whom report being overloaded with work, rate their stress levels as high. Only 23% of employees report high satisfaction with life, and over one third of them report a high level of depression (Duxbury & Higgins, 2013, p. 12).

Furthermore, those with jobs often have to deal with the strain of caring for children or elderly parents, and can struggle to provide adequate support for their dependents (Duxbury & Higgins, 2013, pp. 14). For example, working parents spend more time away from their children, fostering what psychologist Richard Grandpre labels a “culture of neglect”; he links this to the current spread of ADHD and Ritalin prescriptions (cited in Alexander, 2001, p. 12). These examples demonstrate that any conflict of interest with home life entails a myriad of implications for the psychosocial integration of other family members. No area of life remains untouched when the energy and time invested in work expand out of proportion to what is healthy for individuals and their relationships. Therefore, the consequences for individuals driven to work compulsively will be severe, as surpassing these healthy boundaries not only devastates their well-being but propels the furthered dislocation of those around them (Andreassen, *Workaholism: An overview and current status of the research*, 2013, p. 1; Ksiazak, 2014).

#### IV: CONCLUSIONS

In summary, working compulsively amidst a lack of stability and relationships in the post-modern world can be viewed as an attempt to mask our anxiety by protecting ourselves from vulnerability and garnering a sense of identity. In the end, however, addiction to work only perpetuates these fears and catalyses further dislocation. Although incompatibility with the demands of free-market society is the common experience of the postmodern individual, the status of work and the market forces that hold this status in place make it difficult for individuals to separate themselves from their employment long enough to assess their well-being (Stearns, 2008, p. 169). Ironically, because enormous commitments to work constitute the admission fee to the top of the capitalist hierarchy, the leaders of the free market are those the most controlled by it (Hassan, 2009, p. 114).

Given the prevalence of workaholism in

Canada, it is notable that the data on this subject is sparse and collected in 2008, over ten years prior to the writing of this article. While the root causes of workaholism have not disappeared during this period of time, additional sources of stress to workers may have shifted or even intensified. For example, exponential developments in artificial intelligence may complicate workplace dynamics by jeopardizing employment (Kaplan, 2009, p. 3). Without recent and reliable data on addiction to work, Canadian citizens will not be able to address workaholism and its implications for their well-being, which may differ according to their cultural and socioeconomic backgrounds. Future investigations, therefore, would increase their accuracy through extending the depth of their qualitative analysis across the population, and are imperative next steps towards a healthier culture of work in Canada. Choosing to question our attitude of tolerance – and even awe – of addiction to work may help us face our fears and start to relocate our relational bearings in space and time.

#### AUTHOR BIOGRAPHY

Anna Buhrmann is a second year student in the Arts & Science program at McMaster University. Her curiosity is sparked by human ways of belonging and wellbeing, which she explores in the areas of global health, philosophy, history, language, and sociology. Following a class on the social roots of addiction she became interested in the connection between a lack of belonging and the recent broadening of the concept of addiction. She is grateful JIRR for an opportunity to engage with the concept of workaholism from an interdisciplinary perspective.

## WORKS CITED

- Alexander, B. K. (2001). *The Roots of Addiction in Free Market Society*. Canadian Centre for Policy Alternatives.
- Andreassen, C. S. (2013). Workaholism: An overview and current status of the research. *Journal of Behavioural Addictions*, 3(1), 11. DOI: 10.1556/JBA.2.2013.017
- Andreassen, C. S., Griffiths, M. D., Hetland, J., & Pallesen, S. (2012, April 20). Development of a work addiction scale. *Scandinavian Journal of Psychology*, 53(3), 265-272.  
<https://doi.org/10.1111/j.1467-9450.2012.00947.x>
- Berlant, L. (2011). *Cruel Optimism*. Durham, NC: Duke University Press.
- Centre for Intercultural Learning. (2018, -9 18). Cultural Information - Conversations. *Global Affairs Canada*. Retrieved from [https://www.international.gc.ca/cil-cai/country\\_insights-apercus\\_pays/ci-ic\\_ca.aspx?lang=eng](https://www.international.gc.ca/cil-cai/country_insights-apercus_pays/ci-ic_ca.aspx?lang=eng)
- Clark, M. A., Michel, J. S., Zhdanova, L., Pui, S. Y., & Baltes, B. B. (2016). All work and no play? A meta-analytic examination of the correlates and outcomes of workaholism. *Journal of Management*, 42(7), 1836-1873. doi: 10.1177/0149206314522301
- Crary, J. (2013). *24/7: Late Capitalism and the Ends of Sleep*. Brooklyn, NY: Verso.
- Diaz, K. M., Howard, V. J., Hutto, B., Colabianchi, N., Vena, J. E., Safford, M. M., . . . Hooker, S. P. (2017, 10 3). Patterns of Sedentary Behavior and Mortality in U.S. Middle-Aged and Older Adults: A National Cohort Study. *Annals of Internal Medicine*, 167(7), 465-474.doi:10.7326/M17-0212.
- Duxbury, L., & Higgins, C. (2013). *Key Findings - Revisiting Work-Life Issues in Canada: The 2012 National Study on Balancing Work and Caregiving in Canada*. Retrieved from <https://newsroom.carleton.ca/wp-content/files/2012-National-Work-Long-Summary.pdf>
- Fong, F. (2018). *Navigating Precarious Employment in Canada: Who is Really at Risk?* Toronto, ON: Chartered Professional Accountants Canada. Retrieved from <https://www.cpacanada.ca/en/connecting-and-news/blogs/public-good/2018/january/a-very-precarious-situation>
- Griffiths, M. D. (2011). Workaholism - a 21st-century addiction. *The Psychologist: Bulletin of the British Psychological Society*, 24(10), 740-744. Retrieved from <https://www.academia.edu/429387>

/Griffiths\_M.D.\_2011...Workaholism\_A\_21st\_century\_addiction...The\_Psychologist\_Bulletin\_of\_the\_British\_Psychological\_Society\_24\_740-744

Hassan, R. (2009). *Empires of Speed: Time and the Acceleration of Politics and Society*. Leiden, The Netherlands: Koninklijke Brill NV.

Kaplan, J. (2015). *Humans need not apply: a guide to wealth and work in the age of artificial intelligence*. Retrieved from <https://ebookcentral.proquest.com>

Keown, L.-A. (2008). Time escapes me: Workaholics and time perception. *Canadian Social Trends*. Statistics Canada. Retrieved from <https://www150.statcan.gc.ca/n1/pub/11-008-x/2007001/pdf/9629-eng.pdf>

Killinger, B. (1991). *Workaholics: The Respectable Addicts*. Toronto, ON: Key Porter Books Limited.

Ksiazak, T. (2014). Work addiction. *Salem Press Encyclopedia of Health*. Retrieved from <http://libaccess.mcmaster.ca/libaccess.lib.mcmaster.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ers&AN=94415588&site=eds-live&scope=site>

Menzies, H. (2005). *No Time: Stress and the Crisis of Modern Life*. Vancouver, BC: Douglas & McIntyre Ltd.

Oates, W. (1971). *Confessions of a Workaholic*. NY, NY: The World Publishing Company.

Polaski, S. (2004, May 30). *Job Anxiety Is Real - and It's Global*. Carnegie Endowment for International Peace, Washington, DC. Retrieved from <https://carnegieendowment.org/files/Policybrief30.pdf>

Ramsay, M. C., & Lu, X.-A. L. (2013). *Passive Addiction or Why We Hate Work: An Investigation of Problems in Organizational Communication*. Lanham, MD: University Press of America, Inc.

Stearns, P. N. (2008). *From Alienation to Addiction: Modern American Work in Global Historical Perspective*. Boulder, CO: Paradigm Publishers.

Workaholics Anonymous. (2018). Welcome to Workaholics Anonymous. *Workaholics Anonymous*. Retrieved from <http://www.workaholics-anonymous.org/index.php?page=home>



## Values as the Bridge over Troubled Disciplinary Waters

Ellen Taylor

---

WE live in a world riddled with complexity; the closer we examine what we think we know, the more we recognize the limits of our knowledge. This practice is known as epistemic humility and, while it is admittedly daunting, it is one of the most intriguing aspects of science. While common perceptions of science place science on a pedestal of certainty and objectivity, epistemic humility reveals the inherently uncertain nature of scientific knowledge. Moreover, there is a disconnect between normative misconceptions of science as an objective and certain practice that produces concrete knowledge and the descriptive uncertain nature of science revealed via epistemic humility. One of the best ways to help close this epistemic divide is through the incorporation of values and interdisciplinary practices. By debunking the myth of absolute objectivity in science and incorporating epistemic values, we can further the conversations about scientific practice and improve our ability to work collaboratively. In this essay I will argue that not only does rejecting the value-free ideal better science, but

it also strengthens interdisciplinary work, which is becoming increasingly critical in our current climate of multifaceted issues. To make this argument, I will begin with an analysis of the value-free ideal, followed by an evaluation of interdisciplinarity within science, and conclude with an extension of the implications of rejecting the value-free ideal on interdisciplinarity.

In order to understand the rationale behind rejecting the value-free ideal, we must first understand its origins and why it is currently considered to be entrenched in scientific practices. According to Heather Douglas, an associate professor of philosophy at the University of Waterloo, the value-free ideal describes the belief that only epistemic values, such as generalizability and replicability, are acceptable in internal stages of science in order to preserve ‘objectivity’ (121). Non-epistemic values, such as political and social views, are separated from the internal workings of science in accordance with the value-free ideal. However, as noted by Douglas, this separation is not attainable nor desirable

in a descriptive or normative context due to its inaccurate representation of the scientific process, influence on manufactured scientific controversies, and impact on our understanding of objectivity (121).

Douglas' suggestion of rejecting the value-free ideal faces the difficult barrier of changing the public perception of impersonal science that was established in literature before the 1970s. Early writing from Robert Merton documented scientific norms as "impersonality" and "universalism" (qtd. in Mitroff 579). However, as further investigation and research was conducted, counter-norms including the "personal character of science" were established (Mitroff 579). The co-existence of conflicting norms and counter-norms in science prompted studies that examine how science is conducted. One such study that highlights the need for the incorporation of values in science is Ian Mitroff's study of Apollo lunar scientists' behaviours and reflections about the scientific process. From the responses of these renowned scientists, three "commitments" in science arose: an intellectual commitment, an affective commitment, and an emotional commitment (Mitroff 586). The combination of epistemic values in the intellectual commitment and non-epistemic values in the affective and emotional commitments further display the "social ambivalence" of science and the need for the incorporation of values (Mitroff 579). Additionally, the study found that "every one of the scientists interviewed...indicated that they thought the notion of the objective [and] emotionally disinterested scientist naïve" (Mitroff 587). I believe that the nature of these commitments and the reflection upon the descriptive nature of emotions influencing science

reinforces Douglas' rejection of the value-free ideal.

Secondly, the absolute separation of non-epistemic values from internal processes of science is not attainable. Science is inherently "value-laden" due to the influence values have on decisions in science, such as choosing what to study, how to observe and measure, and how to mitigate uncertainties (Douglas 122). Moreover, by rejecting the value-free ideal, "we can better understand the nature of scientific controvers[ies]...and help speed [the] resolution of those controversies" (Douglas 122). Manufactured scientific controversies occur when the public believes there is scientific dissonance on a topic when there is in fact consensus within the technical scientific community (Harker 193). These controversies stem from miscommunications and misunderstandings where values appear to be in conflict. In the anthropogenic climate change controversy, despite the scientific community's overwhelming consensus confirming anthropogenic climate change, there continues to be objection on the grounds of natural variation in weather patterns that some people "extrapolat[e] to long-term climate patterns" (Harker 189). This assumption is "enforced by our knowledge of past climates" and is problematic as it misaligns the technical terms of 'weather' and 'climate', and ignores key scientific findings, including increasing levels of greenhouse gases (Harker 190). If we were able to discuss the values that influence our definitions of weather and climate and overall understanding of manufactured scientific controversies, I believe we would be able to decrease the number of misunderstandings that spark manufactured scientific controversies. By accepting and ac-

knowledging the need for the incorporation of values in science, we better science by creating the necessary space for open-minded learning and discussion.

Douglas' rejection of the value-free ideal in scientific practice is reasonable and improves the quality of practice through her characterizations of objectivity. One of the key concerns with rejecting the value-free ideal is the loss of objectivity: Douglas mitigates this concern by arguing for the maintenance of concordant objectivity (i.e. a group agreeing on an outcome) while incorporating values in science (Douglas 134). Douglas also shares the following claim from W.O. Quine, a philosopher renowned for his work on holism, who states: "The requirement of intersubjectivity is what makes science objective" (qtd. in Douglas 135). Quine's argument that objectivity is attained through intersubjectivity, the notion that areas of study share more than one disciplinary thought, creates a need for another type of objectivity: interactive objectivity. Interactive objectivity is attained by a group meeting and discussing what the outcomes should be and is more successful with the incorporation of values (Douglas 135). Interactive objectivity is also an integral aspect of interdisciplinarity as it promotes interdisciplinary collaboration which better science by encouraging a diversity of as and perspectives explored through the discussion of values and personal qualities. Refuting the value-free ideal better both science and interdisciplinarity as it creates space for interactive objectivity, which improves interdisciplinary collaboration.

To expand upon my argument that rejecting the value-free ideal better science and in-

terdisciplinarity, I will reflect upon academic disciplines and the meaning of interdisciplinary work. Academic disciplines are different areas of "organiz[ed] learning" that are composed of "accumulated specialist knowledge" and distinct methods of communication (Krishnan 9). Barriers between disciplines are difficult to define and incommensurable due to constant change and complex interactions between disciplines and sub-disciplines (Krishnan 7). Interdisciplinarity is the process of working between or across the disciplines, but given the aforementioned ambiguous definition, its implementation faces several challenges, including how to determine when we are crossing the boundary of a discipline (Krishnan 7). Despite the challenges that disciplinary structure poses to interdisciplinary work, I believe that it is beneficial to maintain disciplines to safeguard the structure of academia. Academic disciplines have an integral role in the present education system: educators worry that the elimination of disciplines would "demand too much" of students and make it more difficult to learn; it is difficult to integrate knowledge without a basic introduction to disciplinary knowledge (Krishnan 42). Additionally, if we were to eliminate disciplines, it would be challenging to find an instructor with the expertise to teach more than one subject due to our current institutionalized disciplines (Krishnan 43). Therefore, we must strive to conduct interdisciplinarity while maintaining the structural integrity of academic disciplines in order to effectively better science.

The relationship between structured academic disciplines and interdisciplinarity is one of complex dependency; interdisciplinary work depends on distinct disciplines. This complex

dependency dynamic can pose a threat to effective interdisciplinary work. To counteract these challenges, Thaddeus Miller, an assistant professor at Arizona State University, and his colleagues proposed using epistemological pluralism as a framework for better interdisciplinarity (Social and Personality Psychology Compass 2018). Epistemological pluralism is described as “several valuable ways of knowing” and is significant to the argument for interdisciplinary work as “accommodating plurality leads to a more integrated study” (Miller et al 1). The use of epistemological pluralism to better scientific practice is illustrated in the discipline and subsequent sub-disciplines of ecology. In her recent address, Dr. Cari Ficken, a postdoctoral fellow in ecology at the University of Waterloo, claimed that ecology is “multicausal”, with many different areas to consider in its practice (2018). The inherently interdisciplinary nature of ecological practice benefits from the framework of epistemic pluralism, as the desire for interdisciplinary research leads to an improved understanding of the multiple epistemologies that influence ecology (Miller et al 2). But why does interdisciplinarity lead to an “improved understanding” of sciences such as ecology? Why is a more integrated study desirable? In the next section of my paper, I will examine the benefits of interdisciplinary work and argue that its implementation is desirable for improvements in science.

Interdisciplinary work is beneficial to science because it promotes ignorance, a “condition of knowledge” in which there is an “absence of fact, understanding, insight or clarity about something” (Firestein 5). This philosophical notion of ignorance improves the quality of scientific knowledge that is attained and disseminated

because it allows for “uncertainty without irritability,” which ignites the production of more questions, instead of answers (Firestein 17). The heightened scientific curiosity from question production makes scientists ask more and better questions, leading to new discoveries in science. In the context of epistemological pluralism, interdisciplinary work includes “unified problem formulation, sharing methods and the creation of questions” (Miller et al 3). Considering the value of creating questions in interdisciplinary work, ignorance improves scientists’ ability to work between the disciplines and address increasingly complex and multifaceted problems. Despite the strength of ignorance in promoting interdisciplinarity and subsequent improvements in science, I have noticed that the “absence of fact” and ambiguity of ignorance in science is often met with resistance. Those outside of the scientific communities, and even including some scientists, equate science with certainty and factuality when in reality, science is messy and operates under various levels of confidence, not certainty (Afshordi 2018). Further, I believe we need to exercise caution with the solidification of answers in scientific processes and start valuing curiosity and ambiguity. Answers stop scientific research, while embracing ambiguity and curiosity lead to questions that ignite new, interdisciplinary avenues for research.

Interdisciplinary work betters science through promoting dialogue between fields, which can in turn improve our ability to incorporate new knowledge and perspectives into scientific practices. Each scientist approaches their own science with a personal worldview and a specific disciplinary literacy that can prevent interdisciplinary studies and collaboration

(Eigenbrode et al. 57). If we employ interdisciplinary practices and start to value the diversity of perspectives, scientists can gain new knowledge from a wide variety of disciplinary and personal ideologies that better the production and dissemination of knowledge in their respective disciplines, thus improving the quality of science.

Having explained the concepts of disciplines and interdisciplinarity in the context of epistemological pluralism, and the benefits of functioning between disciplines, I can now connect the value-free ideal to interdisciplinary work. In doing so, I will reveal how rejecting the value-free ideal betters interdisciplinary work and, as a result, science. Rejecting the value-free ideal improves interdisciplinarity as it eases the discussion of divergent worldviews to further interdisciplinary collaboration. The discussion of divergent worldviews and connection of values to interdisciplinary collaboration is facilitated in the Toolbox Dialogue Initiative. The Toolbox Dialogue Initiative (TDI) is a conversation tool that individuals use to enhance understanding of each person's values in order to promote respect and effective communication in interdisciplinary work (Michigan State University 2019). The focus on collaborative communication in the TDI promotes interactive objectivity as it establishes a method to mediate a conversation, allowing a group to determine how their values will shape the success of their project. In addition to encouraging interactive objectivity, the TDI functions to prevent one of the main barriers to interdisciplinary work: "interdisciplinary illiteracy" (Collins and Evans 29). "Interdisciplinary illiteracy" is the inability to speak the technical language of another discipline. Using

the conversation tool promoted by the TDI improves one's ability to communicate between the disciplines, ameliorating the practice of interdisciplinarity in science (Collins and Evans 29).

Rejecting the value-free ideal also improves our ability to function within ignorance, which, as previously explained, improves interdisciplinary efforts. Given that science is often mistakenly associated with objectivity and certainty, rejecting the value-free ideal would encourage ignorance, therefore improving the facilitation of curiosity and focusing on the 'certainty' produced by answers. Furthermore, by incorporating epistemic and non-epistemic values, we are able to embrace the natural ambiguity of science and promote ignorance, which betters both science and interdisciplinarity.

While the previous sections of this paper have focused on why rejecting the value-free ideal improves science and interdisciplinary work, I will now briefly reflect as to *how* we could disregard the value-free ideal in contemporary scientific practices. I believe that one of the best ways to accomplish this is to be critically conscious of our social locations. Your social location describes where you are positioned in the "hierarchically structured system of power relations" in society and is strengthened by your recognition of this position (Wylie 31). If scientists heightened their sensitivity towards their social locations and the social domains in which they conducted scientific research, I believe we would achieve improved philosophical ignorance and scientific research.

Additionally, acknowledging social location can improve one's ability to critically assess the

knowledge they are presented. Acknowledging the reflective and philosophical nature of this paper, I note the limitations of my social location and in expressing alternative arguments and perspectives. I am writing this paper as a young, female student and recognize that my identity directly influences how I interact with knowledge (Wylie 27). I am limited in what I know by who I am. For future iterations of this paper, I believe that collaboration and the incorporation of other voices would be beneficial in strengthening the argument for the incorporation of values in science and the promotion of interdisciplinarity.

In conclusion, rejecting the value-free ideal promotes better science and interdisciplinary work due to the “value-laden” nature of science. Rejecting this ideal leads to an improved ability to function in ignorance, and to the encouragement of interdisciplinary dialogue that creates more space for interdisciplinary work. As a student studying in the interdisciplinary program of Knowledge Integration, I am pursuing interdisciplinary approaches to my learning and knowledge. I have noticed that my knowledge of the Canadian Charter of Rights and Freedoms from my Legal Studies course strengthens my understanding of policies (or lack thereof) surrounding euthanasia that have been discussed in my biomedical ethics course. Connections

between courses have reinforced my recognition of the complexity of modern problems and the benefits of an interdisciplinary approach to these problems. While striving for interdisciplinarity in my studies may not yield the same depth of knowledge produced in disciplinary studies, I believe that there is great value to the breadth of my knowledge. My understanding of ignorance and the importance of values in knowledge acquisition has allowed me to make connections between disciplines and operate under ambiguity successfully. I believe a deep, disciplinary knowledge base would hinder this success due to its promotion of a singular method to approaching a problem that would instead benefit from diverse perspectives. Additionally, my pursuit of interdisciplinary practices has helped me maintain epistemic humility. I recognize that my peers who are pursuing studies in specific disciplines, such as law or ethics, will have more detailed and in-depth knowledge. These peers, however, may lack the ability of an interdisciplinary student to translate their knowledge across disciplinary boundaries, thus limiting the extent to which they can apply their knowledge. I look forward to continuing my pursuit of interdisciplinarity and working in a world of increasing complexity and beautiful uncertainty.

#### AUTHOR BIOGRAPHY

Ellen Taylor is a second-year student in Knowledge Integration. While she is interested in many subjects across the disciplines, Ellen is currently pursuing a French minor and a specialization in Science, Technology and Society.

Values as the Bridge Over Troubled Disciplinary Waters was written to reflect upon how values influence science practices. Ellen hopes to continue to explore the space for subjectivity in science throughout her undergraduate degree.

## WORKS CITED

- Afshordi, Niayesh. "Astrophysics and Cosmology." 16 October 2018, University of Waterloo, Waterloo. Presentation.
- Collins, Harry, and Robert Evans. "The Periodic Table of Expertises 1: Ubiquitous and Specialist Expertise." *Rethinking Expertise*, University of Chicago Press, 2007, pp. 13–44.
- Douglas, Heather. "Rejecting the Ideal of Value-Free Science." *Value-Free Science?*, May 2007, pp. 120–140., doi:10.1093/acprof:oso/9780195308969.003.0009.
- Eigenbrode, Sanford D., et al. "Employing Philosophical Dialogue in Collaborative Science." *OUP Academic*, Oxford University Press, 1 Jan. 2007, academic.oup.com/bioscience/article/57/1/55/224519.
- Ficken, Cari. "The Nature of Ecological Knowledge." 6 November 2018, University of Waterloo, Waterloo. Presentation.
- Firestein, Stuart. *Ignorance: How It Drives Science*. Oxford University Press, 2012.
- Harker, David. *Creating Scientific Controversies: Uncertainty and Bias in Science and Society*. Cambridge University Press, 2015.
- Krishnan, Arman. "What Are Academic Disciplines?" *ESRC National Centre for Research Methods*, Jan. 2009, pp. 4–52.
- Miller, Thaddeus, et al. "Epistemological Pluralism: Reorganizing Interdisciplinary Research." *Ecology and Society*, vol. 13, no. 2, ser. 46, 2008, pp. 1–17. 46, <http://www.ecologyandsociety.org/vol13/iss2/art46/>.
- Mitroff, Ian I. "Norms and Counter-Norms in a Select Group of the Apollo Moon Scientists: A Case Study of the Ambivalence of Scientists." *American Sociological Review*, vol. 39, no. 4, 1974, pp. 579–595., doi:10.2307/2094423.
- "Starting the Dialogue." *Toolbox Dialogue Initiative*, Michigan State University, tdi.msu.edu/.
- "Thaddeus Miller." *Social and Personality Psychology Compass*, Arizona State University, [asu.pure.elsevier.com/en/persons/thaddeus-ryan-miller](http://asu.pure.elsevier.com/en/persons/thaddeus-ryan-miller).

Wylie, Alison. "Why Standpoint Matters." *Science and Other Cultures: Issues in Philosophies of Science and Technology*, 2003, pp. 26–48.



JI

РЯ