Braided Archives: Black hair as a site of diasporic transindividuation

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Abstract

This thesis investigates how hair braiding is used by continental African women to negotiate belonging in the diaspora and Canadian society. Scholarship on the cultural significance of Black hair is usually focused on the cultural significance of "Black hairstyles" rather than the practice of hair braiding itself. Therefore, this thesis is guided by three research questions: 1) how is it that hair braiding, cornrows specifically, emerged as a cultural practice throughout the African diaspora when colonization was predicated on the complete erasure and devaluation of the African identities and their cultural/spiritual practices, 2) how can we understand hair braiding as an instance of Black technological innovation and 3) how does thinking about hair braiding as a form of transindividuation redefine what is considered technological? This thesis uses autoethnography and sensory ethnography as methodological frameworks to underline the role that sensory practices play in identity formation.

Dedication

To those of us whose multitudes cannot be contained.

Acknowledgements

I would first like to thank my thesis committee: Ganaële Langlois, Monique Tschofen, and Andrea A. Davis, who throughout this process continually challenged me to take my thinking and writing to places I did not think it could go. To my supervisor, Ganaële Langlois, thank you for believing in this project, giving me the space to explore and making writing the thesis such a positive experience.

I would also like to thank my study participants who gave me their time and were so enthusiastic at the prospect of discussing their experiences with hair braiding. This thesis is dedicated to you and all the Black girls who've had to sit with hands in their hair.

To my friends and family who have had to hear me talk about this project for the past year and a half, thank you for listening to me and letting me think through my ideas out loud. To my parents with whom I talked almost every day while working on this project, thank you for the incredible support you've shown throughout my academic career.

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—Solange Knowles, Don't Touch My Hair

On September 30th, 2016, Solange Knowles released her critically acclaimed album A Seat at The

Table. Along with praise for the album's sound and visuals, Don't Touch My Hair, specifically,

was praised for its honest portrayal of the experiences of Black women and their hair. In an essay

published on Saint Heron's website, Solange wrote:

> "You and your friends have been called the N-word, been approached as prostitutes, and
> have had your hair touched in a predominately white bar just around the corner from the
> same venue," she wrote, giving the scene context. "You know that people of colors'
> 'spaces' are attacked every single day, but many will not be able to see it that way"
> (Pearce, 2016).

Around the world, Black people were thanking Solange for giving them the language to identify

and explain the often complicated relationship they have with their hair. As I listened to the song,

I pondered the meaningfulness of Solange's lyrics in my own life. How much did I not

understand or know about what my hair means to me and the choices I make about my hair? The

relationship between hair and self-perception as it relates to gender, race, and sexuality has

already been established and defended by sociologists (Badillo, 2001; Barkai, 2016; Bradford et

al., 2019; Maine, 2018) but for Black Africans living in the diaspora, the role that hair plays in

the construction of identity goes beyond issues of self-perception. Indeed, hair has often been

used as a vehicle for discovery and activism. In the United States, specifically, hair has and continues to be used as a scapegoat for issues surrounding race and respectability.

Eight states including Virginia and New York have banned hair discrimination. This legislation, often referred to as the CROWN Act is meant to remedy discriminatory laws which barred African Americans from participating in sports, graduating, or being employed (Evelyn, 2020a, 2020b; Rodriguez, 2021). Similarly, in August 2020, Glamour Magazine's 'hair issue' titled "Was It Our Hair? Or Was It You?", a play on word on Raveen's slogan: Was It Her Resumé?… Or Raveen? (Edwards, 2020) featured a PSA featuring Black celebrities, and a petition to support the CROWN Act.

Although the politicization of Black hair dates back to the transatlantic slave trade (Thompson, 2009), members of the Black diaspora continue to face discrimination for choosing to wear their hair in styles that reflect and celebrate its natural texture. Much of the research on hair, race, and identity focuses on either the United States or the United Kingdom (Berry, 2008; Neil & Mbilishaka, 2019; Steele, 2016; Thompson, 2009). This thesis argues that, unlike their American, European, or Caribbean counterparts, continental Africans living in Canada, experience belonging in the diaspora through their hair. In this thesis, the distinction between continental African women and the rest of the diaspora provides the backdrop for a discussion of the sensory experiences and memories of Black immigrant women living in Canada. As such, this thesis conceptualizes diaspora in ways that build on the work of Paul Tiyambe Zeleza (2005, 2010). As it stands, Zeleza is quite critical of the field of diaspora studies. The tendency to define diasporas in ways that imply that they are static and unchanging is one of the main critiques of diaspora studies wielded by Zeleza (2005, 2010). The US-centric Atlantic model described in diaspora studies often centers the transatlantic slave trade as the major diasporic event while

ignoring the African diasporas that "existed long before…in different parts of the world" (Zeleza, 2005, p. 39). As a corrective endeavour, Zeleza asks diaspora scholars to think and reflect on the implications of this US-centric approach to diaspora (2005, 2010). Without dismissing the importance of the Black Atlantic model of diaspora, his work allows for approaches to diaspora that are more expansive and that treat diaspora as a processual phenomenon rather than a static one. Furthermore, Zeleza (2005) describes diasporic identities as constituted:

> historically through expressive culture, politics, thought and tradition, in which experiential and representational resources are mobilized from the imaginaries of both the old and the new world (p. 41).

Approaching diaspora and diasporic identities through this approach furthers the need to reconsider hair braiding as a communicative and technological practice. By examining hair braiding through the lens of communication technology and media, it is possible to claim that hair braiding is a technique that sustains and cultivates diasporic identities. In other words, I wish to argue that the practice of hair braiding mediates between the "processes of becoming" described by Zeleza (2005) and the multiple identities that diasporic subjects embody. Like Zeleza (2005) I see Africa as "a geography, a history, a material and imagined place, or constellation of places" (p. 44) and therefore see hair braiding as a way to produce these constellations of places.

Chapter 1 argues for the relevance of studying hair braiding as a communicative practice while providing a historical overview of the significance of hair in Africa and the Americas, with a focus on the United States. This chapter is foregrounded by the work of Ayana D. Byrd and Lori L. Tharps on the history of Black hair in the United States (2014) and Sybille Rosado's (2003, 2007) research on attitudes about hair in Caribbean women of African descent, Sharon

Adetutu Omotoso's (2015, 2018a, 2018b) "African philosophy of hair", and Ron Eglash's writing on ethnomathematics and his anthropological work on African fractals (Eglash, 1997, 1999; Eglash et al., 2006; Lachney et al., 2019).

Chapter 2 defines diasporic transindividuation as the main theoretical framework of this study. The usefulness of diasporic transindividuation lies in its assembling of many theoretical perspectives that do not often interact with the other. Indeed, diasporic transindividuation relies upon creating space for conversation between frameworks such as the epistemologies of the South (de Sousa Santos, 2018), cyborg subjectivity (Haraway, 2006), Afrofuturism (Bristow, 2012; Elia, 2014; Eshun, 2003; Oloruntoba, 2015), Caribbean sociolinguistics (Warner-Lewis, 1997, 2003), and individuation (Howells & Moore, 2013; Stiegler, 1998, 2012; Tinnell, 2015). As an assemblage of theoretical perspectives, diasporic transindividuation asks that we think critically about what kinds of knowledge are embraced and dismissed in academia.

Chapter 3 discusses sensory ethnography, the methodological framework mobilized in this study. As a method, sensory ethnography accounts for how sensory experiences are central to our being in the world. As a framework, sensory ethnography relies on a set of sensory assumptions which emerge from diasporic transindividuation: 1) thinking-through-knotting and 2) the notion that humans interact with the world using our hands as processes that are necessary for meaningful sensory experiences. The chapter also discussed the autoethnography and the interviews which were performed, as part of this thesis and foregrounds the following chapter.

Chapter 4 presents the findings from the data collection and describes how Black African women who live in the diaspora use their hair to foster a sense of belonging in the diaspora. Thematically, the chapter engages with categories including included memory, identity and belonging, and technique. The chapter demonstrates that, unlike their American or European

counterparts, continental African women use their hair to negotiate their often-complicated feelings about how their hair is perceived living in the diaspora.

Chapter 5 acts and a concluding chapter and reconsiders the relevance of diasporic transindividuation as a theoretical framework. This chapter also reflects on how expanding definitions of technology to include practices such as hair braiding redefines what is considered technological. This chapter makes the argument that as a cosmotechnic, hair braiding transforms those who braid or get their hair braided by treating the body as a meaning-making machine that mediates between human and non-human actors.

Chapter One: Black hair in historical context

Why study hair?

> 'Why hair?' you might ask. 'What can hair tell us about bodies that other corporeal dimensions, like skin, have not already?' (Holton, 2020, p. 556)

> Hair is a key agent in producing and representing the body, specifically through the presences and absences of hair that influence, disturb, transform, and transcend its margins (Holton, 2020, p. 555).

Hair is everywhere: it is on our heads, arms, sometimes faces: it gathers on floors, on shower curtains, and drains. Hair is also nowhere. It is hidden, cut, shaved and lasered routinely. Our hair is dead, but it is also alive. Despite its liminal nature, hair is often dismissed into the realms of frivolity or aesthetics whereas the body and skin often enjoy a certain intellectual primacy (Ahmed, 2017; Connor, 2004; Mountz, 2018; Price, 2013). Furthermore, this dismissal is often justified by viewing hair as "dead margins of the self, along with fingernails and other excreta" (Kwint et al., 1999, p. 9; Thrift, 2008). This initial dismissiveness ignores the fact that while hair is admittedly a 'lifeless extension', it cannot be separated from ideologies that imbue it with meaning. Unlike hair, these ideologies are alive and continue to provide much of the context for how we interact with hair (Watson, 2010). Hair is excreta. It is waste, but it is also gender: it is ethnicity, it is race.

From a social and scientific perspective, hair carries a range of identifiable markers. In forensics, for example, hair is often used to differentiate between human and animal or to determine age, race, and sex. Identification through the analysis of mitochondrial DNA found in hair follicles has been standard practice in forensic science (Deedrick, 2000). Along with genetic markers, the presence or lack thereof, the amount, and placement of hair can help categorize

people over time and space. Indeed, certain hairstyles and grooming practices continue to be

associated with specific cultures. Consequently, the shedding and retrieval of hair is at once a

social, psychological, cultural, and spiritual process. Similarly, the trade of human hair is bound

up in histories of race, gender, and colonialism (Berry, 2008; Young, 2018). Indeed, Rose

Weitz's (2004) Rapunzel's Daughters: What Women's Hair Tells Us about Women's Lives

makes the case that hair is an important aspect of women's identity. She explains that hair plays

an important role in contextualizing gendered performance. As such, she argues that:

> Hair, then is a part of a broader language of appearance which, whether or not we intend
> it, tells others about ourselves. It's not a perfect medium. An Afro may signal ethnic pride
> to the black woman who wears it but be interpreted by whites as a marker of radical
> politics or an unprofessional attitude. In either case, as we face the mirror and then face
> the world, we tell others about our occupation, gender, age, ethnicity, values, emotions,
> and even sexual availability (pp. xvi-xvii).

Much of the writing that focuses on the role of hair in affirming gender identity and conversely

gender dysphoria also incorporates Weitz's view that hair carries a range of these context-

specific meanings. For example, Bradford et al (2019) demonstrate how, for transfeminine

people, hair removal and gender affirmation are entwined. They note that for those who took part

in their online survey, accessing hair removal is especially important for psychological well-

being. In comparison, participants who had not been able to access those services or had great

difficulty in doing so experienced significantly higher levels of depression, anxiety, and other

negative symptoms (Bradford et al., 2019, p. 5). Hair then, is an important medium that we use

to present ourselves to others and to, in turn, interpret how others present themselves to us.

Studying hair, then, can be a way to interrogate and deconstruct ideas surrounding gender, race,

and ethnicity.

Given the complexity of outlining a definitive history of Black[1] hair, the aim of this chapter is two-fold. On the one hand, this chapter acts as a review of the existing literature on the history of Black hair. On the other, it aims to provide a justification for the study of hair and hair grooming as socio-cultural and communicative practices. The chapter begins with a brief overview of the significance of hair as a socio-scientific marker. This section is supported by the work of Sybille Rosado (2003, 2007) and what she calls the 'grammar of hair'. She argues that studying the "symbolic grammar of hair" is necessary to understand how culture is shared and disseminated throughout the diaspora (Rosado, 2003, p. 61). As such she claims that the decisions that women of African descent make about their hair are imbued with meaning beyond aesthetic choices. This discussion is followed by a historical overview of the role of hair in Black diasporic communities beginning in pre-colonial Africa to present day. Doing so highlights some of the controversies that have, and continue, to plague Black hair. This chapter concludes with a discussion of hair, and hair grooming practices as technologies in and of themselves. This discussion serves as further justification of the study of hair braiding as a communicative practice. The discussion also serves as an introduction to the theoretical framework that is presented in the following chapter. Although, it will be fully fleshed out in the next chapter, the theory of diasporic transindividuation acts on certain assumptions that need to be contextualized before a theoretical framework is presented.

Hair as grammar: repetition, re-emergence, and recognition

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[1] Throughout this thesis, I capitalize Black throughout this paper as a way to acknowledge the politicization of Blackness and the fraught history of the many markers and monikers used to refer to enslaved peoples and their descendants (see Nguyễn & Pendleton, 2020; Tharps, 2014).

While existing literature has observed the significance of hair in African societies, it seldom discusses the less obvious ways in which colonization has warped Black identity and as a result complicated the relationship Black Africans have with their hair. The work of Sybille Rosado (2003) seeks to explore the complicated set of beliefs and attitudes about hair that have been shaped by both anti-Blackness and Black pride. She writes that "among women of African descent, hair and hairstyles are evidence of a set of rituals that are being practiced throughout the diaspora" (Rosado, 2003, p. 61). Accordingly, the maintenance of hair grooming practices and the hairstyles with African aesthetics throughout the diaspora is anthropologically relevant because of the socio-cultural role that hair continues to play among Black people. She argues that at the very least, the visibility of hair grooming styles and techniques from Africa across the diaspora requires that such practices should be treated as having to do with more than just hair and aesthetics.

To that end, Rosado (2003) treats hair similarly to languages. Rosado shows that the similarity in hairstyles and hair grooming practices shared by diasporic Africans practiced today reveals connections between the diaspora and sub-Saharan Africa. These observations stem from her ethnographic research and interviews with African American women. While helpful, the claims made by Rosado (2003) require an understanding of what she calls the "grammar of hair" (p. 61). The definition she provides stems from bewilderment at the fact that there are people who although they have not set foot on the African continent continue to employ the techniques their ancestors used to care for their own hair.

Work by Caribbean scholar Maureen Warner-Lewis (1991, 1997, 2003) on cultural and linguistic transmission in the Caribbean helps contextualize this argument. While her work will be discussed in further detail in the following chapter, her writing on cultural transmission and

linguistics provides a starting point for a study of cultural practices found across Africa and the diaspora. Indeed, she disrupted many of the assumptions made about the cultural disconnect or lack thereof experienced by African enslaved Africans. She begins by reminding us that geography was important to the transatlantic slave trade. Indeed, slaveholders had certain geographical preferences when it came to the capture or purchase of enslaved people (Warner-Lewis, 2003, pp. 58–59). This, in turn, led to individuals of similar linguistic groups being brought to the Americas. As such, Warner-Lewis explains that this preference would often result in "ethnic clustering" en-route to the plantations (Warner-Lewis, 2003, p. 59). This clustering, she proposes, is one of the ways sustained cultural transmission between sub-Saharan Africans and their diasporic descendants can be explained. Furthermore, she notes that positioning the plantation as the genesis of Caribbean societies at once overemphasizes the Middle-Passage and assumes that:

> there had been no prior socialization of the African labour force, and that there had been no previous theatre of history before the slave ship (Warner-Lewis, 1991, 2003, p. xxiv).

Rosado (2003) makes a similar claim in explaining how studying the grammar of hair allows her to treat hair as a language. Her work hinges on the ability to dissect "the morphology and syntax of symbols" (Rosado, 2003, p. 62). Understanding the grammar or hair allows for a deeper, more nuanced understanding of how hair has and continues to be used to communicate between members of the African diaspora and sustain the transfer of cultural knowledges and practices. Furthermore, she notes that the grammar of hair, its communicative abilities, allow women of African descent to find each other and communicate with one another to counter the separation brought about by colonization. With that in mind, this thesis takes seriously the claims made by Rosado (2003, 2007) about how hair continues to be used as a means of translation between members of the African diaspora.

Hair in pre-colonial Africa

Hair as a social marker

As the highest point on a person's body, hair was believed to be one of the accessible gateways to the divine (Omotoso, 2015, 2018a, 2018b). As such, it has always been associated with identity and spirituality. As a gateway to the human spirit, which supposedly lays in the hair, hair needed to be treated with care and reverence. The role of hair as a spiritual tool was strong enough that medicine men in Cameroon were known to use hair as a way to provide added potency and protection to the healing potions they were carrying (Byrd & Tharps, 2014, p. 5; DeLongoria, 2018). Because of its elevated position, hair was also used as a vessel to communicate with and exalt the gods. For example, in Yoruba culture, devotion to certain gods or goddesses required specific braided hairstyles (Byrd & Tharps, 2014, p. 5). Other spiritual uses of hair included the ability to cast spells using only an individual strand of hair and the belief that Wolof women who called on the spirits that resided in the hair could drive men insane (Byrd & Tharps, 2014, p. 5).

As a multifaceted object, hair was also known to serve as a social and cultural marker. Although these markers were not necessarily shared from one ethnic group to the other, Byrd & Tharps (2014) note that one thing in West African ethnic groups had in common was the social and cultural significance carried by hair. In some cases, a person's surname could be 'read' simply by looking at their hair (Byrd & Tharps, 2014, p. 2). More common were the associations

between hair and social or even marital status (Figure 1).
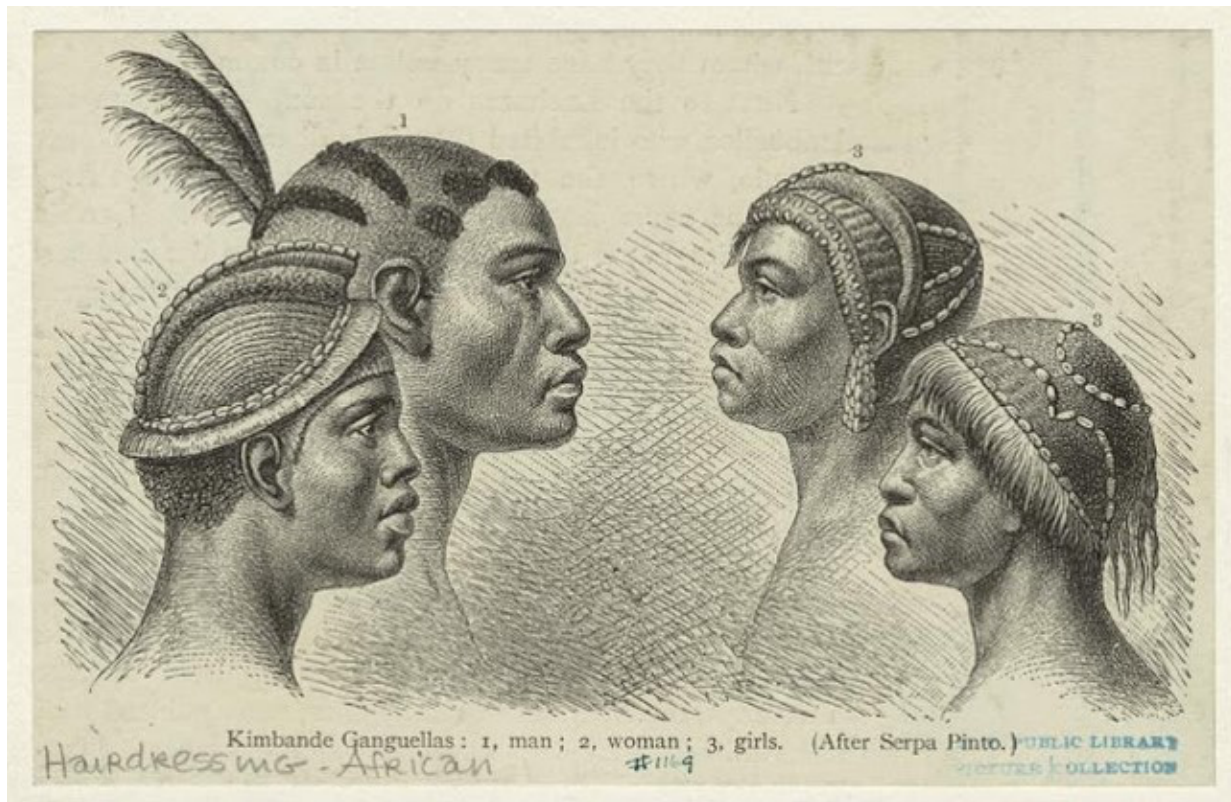
Figure 1. Kimbande Ganguellas: 1. man 2. woman 3. Girls, Ilustration by Serpa Pinto, Alexandre Alberto da Rocha de. From The Miriam and Ira D. Wallach Division of Art, Prints and Photographs: Picture Collection, *The New York Public Library*. (1896 – 1898).

In most West African ethnic groups, information relating to geographic origins and marital status was found in the hair. Women in Senegalese and Nigerian ethnic groups were known to use their hair to signify a range of romantic and sexual arrangements. Wolof women could boast partially shaven heads to let others know they were available for courtship and widowed women were known to stop styling their hair for the duration of their mourning period (Byrd & Tharps, 2014, pp. 2-3). Similarly, a style known as kohin-sorugun, meaning "turn your back to the jealous rival wife" that was meant to be seen from the back was worn by Nigerian women in polygamous relationships (Byrd & Tharps, 2001/2014, p. 3). The style was used by these women to taunt and aggravate each other. Dutch explorers also noted a combination of

styles that could be used to ascertain gender and social status in ethnic groups from Benin (Byrd & Tharps, 2014, p. 9).

The social significance of hair was, of course, accompanied by other aesthetic concerns. Indeed, Africans were known to spend hours engaging in hair grooming practices including shaving, twisting, braiding, and colouring their hair (Rosado, 2007, p. 68). The weaving of supplementary material to the hair was also observed. Materials such as jewelry, shells, leather, and gold were most often used to adorn the hair (Rosado, 2007, pp. 68–69). These same communities were known to prefer women with long, thick hair. This abundance represented a woman's multiplying power and their ability for "raising bountiful farms and many healthy children" (Byrd & Tharps, 2014, p. 4). Anthropologist Sylvia Ardyn Boone who specialized in Sierra Leone's Mende culture commented on the desire for big hair (Byrd & Tharps, 2001/2014, p. 4). This desire for long, healthy hair also reverberated in the rest of West Africa. Unkempt hair, like beautifully adorned hair, had social significance and often signalled to other members of the tribe that something was wrong. Unkempt or messy hair was often associated with moral failings or psychological trouble. For the Mende of Sierra Leone, a woman with dirty hair either had "loose morals" or she "was insane" (Byrd & Tharps, 2014, p. 4). In Nigeria, a woman with unkempt hair who was not grieving was considered "habitually dirty" (Byrd & Tharps, 2014, p.4). In some cases, bereaved women and the wives of men who were preparing to go to war often stopped attending to their hair. Indeed, Wolof men who were preparing for war often told their wives to stop taking care of their hair for they could soon be widowed (Byrd & Tharps, 2014, p. 3-4).

The role of the hairdresser in the community

Hair's role as a social marker and a spiritual vessel of great potency also made any ritual and practice related to hair highly spiritual. The spiritual nature of hair grooming meant that hairdressers always played an important role in their communities. That status was communities' way of acknowledging the time-consuming nature of their tasks and the importance given to hair. It is useful to remember that hairdressers held the ability to help individuals communicate with the divine. Those with cruel intentions also held the opportunity to negatively affect a person's soul (Byrd & Tharps, 2001/2014; Omotoso, 2018). As an intermediary between the mundane and the divine, a hairdresser with malicious intentions could bring significant harm to an individual by messing with their hair. Byrd & Tharps (2001/2014) note that hairdressers were equipped with tools that were not available to all community members. In some communities, hair grooming was such an important task that only fellow family members were allowed to groom each other's hair. In accordance with Yoruba traditional teachings, all girls were taught how to braid hair but those who showed talent and acuity were often encouraged to assume becoming a hairdresser for the entire community (Byrd & Tharps, 2014, p. 5-6). In other cultures, like the Mende, offering to braid someone's hair was a way of extending friendship. Boone notes that the vulnerability and confidences shared during hair braiding sessions made the practice highly personal and emotional (Byrd & Tharps, 2014, p. 6). In effect, hairdressers performed a social and often spiritual service in their communities.

Hair during and after the transatlantic slave trade

The transatlantic slave trade and emerging racial categorizations

The transatlantic slave trade is the name given to one of the four African slave trades that happened between the 16th and 19th centuries (Nunn, 2008). As the largest and most ambitious

slave trade, the transatlantic slave trade displaced close to 12 million Africans (Nunn, 2008, p.

142). Along with people, goods, spices, and other resources were also transported between

Africa, Europe, and the Americas. Nuun (2008) notes that the transatlantic and subsequent slave

trades were unique since previous slave trades involved the enslavement of individuals from

similar ethnicities. In other words, the kidnapping and subsequent enslaving of Africans[2]

transformed the slave trade industry. As such, Nuun (2008) contends that the transatlantic slave

trade fostered distrust and hostility among African communities (pp. 142-143). Indeed,

neighbouring ethnic groups that were at war frequently sold prisoners into slavery (Figure 2).
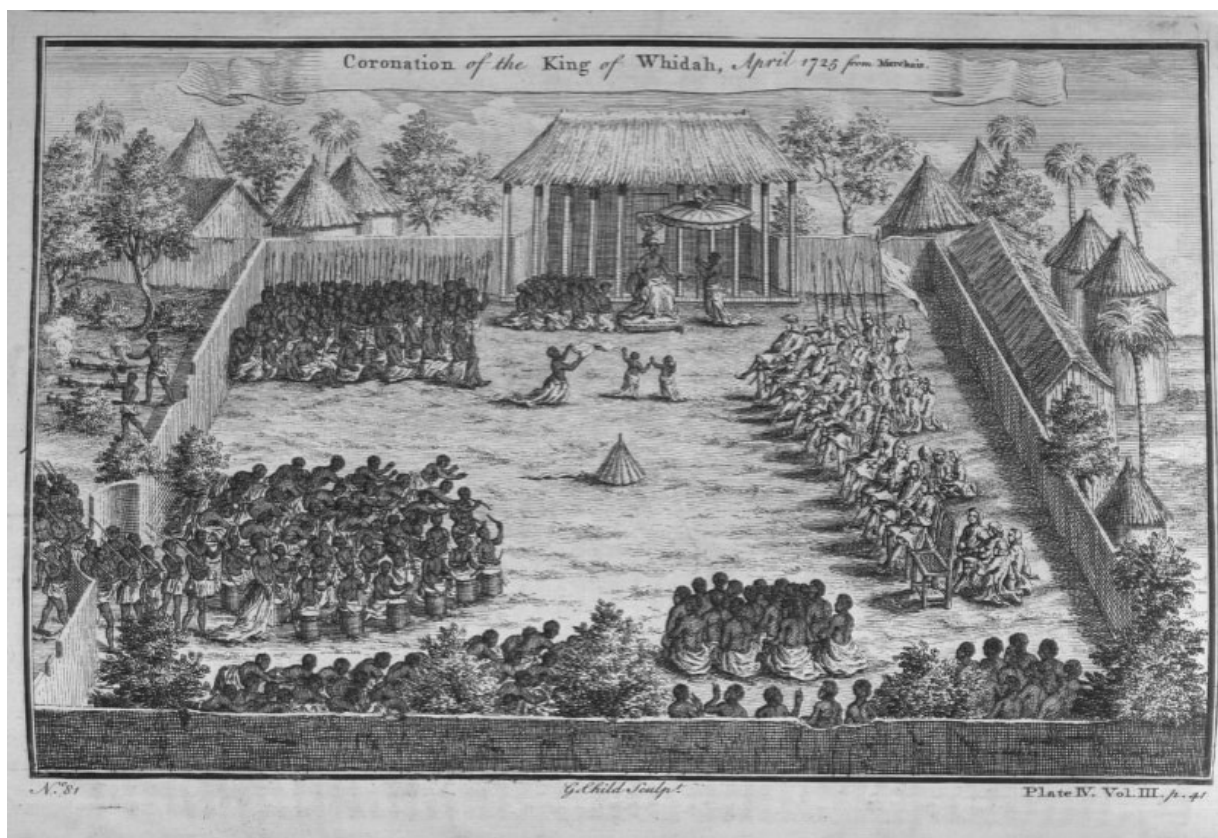
Figure 2 The coronation of the king of Hueda (Astley, 1746: facing page 41, courtesy of Neil Norman). From Monroe, J. C. (Ed.). (2014). Geography, Settlement, and Politics. In *The Precolonial State in West Africa: Building Power in Dahomey* (pp. 26–70). Cambridge.

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[2] It is important to note that the slave trade was facilitated by alliances between European traders, elite African rulers and African slaveholding kingdoms such as the Dahomey and the Ashanti (see Fage, 1969; Law, 1986; Piot, 1996).

Sustaining this form of chattel slavery, which sought to secure labour on plantations in the Americas, required the dehumanization of enslaved peoples. The innovative nature of the transatlantic slave trade fostered a central contradistinction that racism was, in turn, meant to rationalize. Indeed, the United States, a country that prides itself on being the "land of the free" was invested in one of the larger exports of African people to plantations across the Americas without their consent. As such, Benjamin (2019) writes that racism is best understood as a means to reconcile the contradictory practice of providing some rights for some and not others. The dehumanization of a group based on perceived differences correlated with a lack of humanity was the ideological basis for what we now call racism (Benjamin, 2019, p. 19) This process of dehumanization took many forms although one of the initial actions taken by slave traders to dehumanize kidnapped Africans was to shave the head of newly enslaved Africans headed for the United States (Byrd & Tharps, 2014, p. 9). Byrd & Tharps (2014) argue that this practice was a result of an understanding of the role that hair played as a social and ethnic marker in West Africa. Since shaving someone's head equated erasing their identity, the technique was also used to ensure slaves were unable to recognize each other and/or ethnic belonging although language was often used by slaves of similar ethnic groups to recognize each other (Byrd & Tharps, 2014; Warner-Lewis, 1991, 1997).

The hair trauma experienced by enslaved Africans was also the result of the time spent in slave ships and their arrival in new geographical locations which did not suit African hair (Byrd & Tharps, 2014). Afro hair, which evolved to thrive in warm climates suffered from the harshness of North American climates, especially the high humidity of summers, the cold, and the dryness of winter. Along with the meteorological assault, the tools that were commonly used to groom hair were unavailable. Notably, African combs which had been used for hundreds of

years were now unavailable. Thompson (2009) also notes that movement through the Middle Passage and subsequent enslavement in the Americas left the hair of the slaves tangled and unhealthy. Hair grooming, a deeply communal and spiritual activity was replaced with quickly arranging hair with headscarves and handkerchiefs (Byrd & Tharps, 2014, p. 13). Slaves who worked primarily in the household were able to arrange and style their hair although those styles often resembled the styles their enslavers wore (Byrd & Tharps, 2014, p. 13). For example, in the eighteenth century, enslaved Africans living in the United States were known to have started shaping their hair to appear like wigs or to wear them to recreate the fashionable hairstyles worn by white men (Byrd & Tharps, 2014, p.13). Similarly, Thompson (2009) explains that during the 18th century, Black hair began to be categorized as inherently inferior to European hair (p. 833). She also notes that Black hair was not thought of as hair but rather was classified as wool and other animal furs. This classification was, in turn, another way to dehumanize African slaves (Thompson, 2003, pp. 833-834). This resulted in the imitation of white hairstyles as the norm for newly freed slaves. At the same time, Black entrepreneurs, like Madam C.J. Walker, were able to patent and advertise their hair softeners and hair-straightening combs (Thompson, 2009, p. 834). This seemingly contradictory practice of advertising and entrepreneurship in the Black communities accentuated the already complicated relationship that Black people, especially Black women, had with their hair. It is important to note that although slave owners did everything in their power to degrade African hair, Byrd & Tharps (2014) note that many slaves refused to hide or wear their hair in the accepted fashion (p. 14).

Although Black hair was now categorized in similar ways to other animal furs, Byrd & Tharps (2014) note that prior to the slave trade explorers were often impressed by the intricacies of African hair and hair grooming practices. French and Dutch explorers who had previously

written about the complexity of African hair and the breadth of styles now used these distinctions

as justification for the inferior status of Africans (Byrd & Tharps, 2014, p. 14; DeLongoria,

2018, p. 41; Thompson, 2009, pp. 833–834). This purposeful categorization of African hair was

often used to denote Africans' supposedly degenerate and savage nature (Dash, 2006, p. 28).

This demonization of Black features such as hair texture became a way to justify the

entrenchment of slavery.

Interestingly, Omotoso (2018a, p. 1) explains that although India and Africa share a

colonial legacy, Indian women have been able to maintain their cultural hairstyles. She argues

that this is because of the peculiar nature of African hair. Conversely, she argues that the distinct

nature of African hair was also a "substantive tool" for Pan-Africanist and Black liberation

movements (Omotoso, 2018b, p. 1). Rosado's (2007) writing on perceptions of hair in African

American communities points in a similar direction. Her work with African American women

makes evident the fact that despite growing awareness that race is a socially constructed

category, hair continues to be deemed an accurate genetic marker of race. Similarly, Byrd &

Tharps (2014) argue that hair often supersedes other markers of race. They write that:

> hair texture is evaluated consciously and unconsciously to authenticate the African
> genotype in the African Diaspora, hair is seen as even more important than skin colour,
> language, or religion because it serves as a critical marker of race and group identity (p.
> 61).

These beliefs are also reinforced and reiterated in the use of hair for genetic testing purposes. As

mentioned earlier, forensic anthropologists have used hair and its attributes to differentiate

between the major socially constructed racial groups: Caucasian, Negroid, and Mongoloid

(Deedrick, 2000; Rosado, 2007, pp. 34–35). The retrieval of mitochondrial DNA (mtDNA) and

nuclear DNA found in hair follicles is primarily how hair and race become entwined.

Furthermore, Deedrick (2000) notes that Negroid or African hair, as it has also been categorized,

is "primarily elliptical or flat shaped with dense pigmentation and a thick cuticle" (Deedrick & Koch, 2005 in Rosado, 2007, p. 35). Hair, then, continues to be used as a social and scientific marker of race, although it has long been understood that race is a social construction.

Hair in the present

Although Byrd & Tharps (2014) warn against assuming that enslaved people in the United States simply accepted that their hair was inferior to white people's hair, they agree that the relationship between enslaved people, their descendants, and hair was transformed by slavery and its aftermath. As noted above, hair was an especially contentious matter in Black liberation and artistic movements. During both the Harlem Renaissance and the Civil Rights Movement hair aesthetics were reconsidered in light of more positive, Afrocentric perceptions of Black hair. Dash (2006) notes that the Harlem Renaissance, a cultural, artistic and intellectual return to African aesthetics and philosophical thought, had an impact on the adoption and rejection of certain hairstyles. Also known as the Negritude movement or the New Negro Movement, the Harlem Renaissance was predicated on Marcus Garvey's "reclamation of an African-based aesthetic" which was central to his Pan-Africanist platform (Byrd & Tharps, 2014, p. 38; J. H. Clarke, 1974). Garvey's work also greatly influenced and contributed to the formation of the Rastafarian movement in Jamaica, another movement where hair provided a symbolic battleground (Byrd & Tharps, 2014, p. 38; Dash, 2006, p. 30). The Rastafarian movement, which later gained popularity among the Jamaican middle-classes with the success of Bob Marley was predicated on being proud of African physical and cultural attributes. To that end, Dash (2006, p. 30) writes that the movement used hair—specifically dreadlocks—to represent pride in Black

people's distinct features. Indeed, the word dreadlock[3] is believed to be derived from the slave

trade. Byrd & Tharps (2014) explain that:

> When Africans emerged from the slave ships after months spent in conditions adverse to any personal hygiene, Whites would declare the matted hair that had grown out of their kinky unattended locks to be 'dreadful' (p. 126).

Byrd & Tharps add that the locking of hair has been present in multiple cultures and is often

traced to "before the fifth century, when Bahatowie priests of Ethiopian Coptic church locked

their hair" (Byrd & Tharps, 2014, p. 126). Byrd & Tharps (2014) also explain that Rastafarians

adopted the hairstyle out of admiration for the Kikuyu soldiers of Kenya (p. 126). This

reverence, coupled with an interpretation of several Bible verses including Leviticus 19:27[4],

Leviticus 21:5[5], and Numbers 6:5[6], made dreadlocks as "an indisputable racial characteristic

meaning that only Black people, because of the texture of their hair, can grow them without

resorting to unusual means" (Byrd & Tharps, 2014, p. 126). Said differently, Rastafarians and

Black people more generally agree that since locking is a natural occurrence in Black people's

hair, the style is inherently Black. Although the wearing of dreadlocks by African Americans has

been the subject of controversies, Byrd & Tharps (2014) warn that the situation is not as simple

as an appropriation of a Jamaican hairstyle by African Americans. On the contrary, they argue

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[3] Here, the term dreadlock is used in recognition of Jamaican Rastafarians' reclamation of the term from its racist, colonial roots although it continues to be used pejoratively. Furthermore, Byrd & Tharps (2014) note that many people who wear the style have also removed the *a* in dreadlock in order to further circumvent pejorative connotations.

[4] "Ye shall not round the corners of your heads, neither shalt thou mar the corners of thy beard" (*The Bible, King James Version, Complete Contents*, 1992).

[5] "They shall not make baldness upon their head, neither shall they shave off the corner of their beard, nor make any cuttings in their flesh" (*The Bible, King James Version, Complete Contents*, 1992).

[6] "All the days of the vow of his separation there shall no razor come upon his head: until the days be fulfilled, in the which he separateth himself unto the LORD, he shall be holy, and shall let the locks of the hair of his head grow"(*The Bible, King James Version, Complete Contents*, 1992).

that the adoption of dreadlocks by African Americans is significant because it not only

transgressed against what "Black hair was supposed to look like" (p. 130), but it allows African

Americans to outwardly express their African ancestry by wearing a hairstyle that is associated

with the qualities found in Black hair.

Along with the popularity of Rastafarianism and dreadlocks, the Black Power movement

is another movement for which reclaiming Black aesthetics was important. Indeed, Dash (2006)

looks to the Black Power movement as another moment of return to African hairstyles and

aesthetics. He notes that members of the Black Power movement believed that internalized anti-

Blackness would manifest in a rejection of Afrocentric aesthetics in African American

communities. He explains that practices such as hair 'conking[7]' and various other means of

straightening or altering curl patterns were practices that were decried by the Black Power

movement as instances where Black people were "sometimes complicit in their own degradation

as people" (Dash, 2006a, p. 31). As a result, the Afro became a celebratory hairstyle that was

aimed at both African Americans and white Americans. Byrd & Tharps (2014) write that:

> In the mid-sixties, Black hair underwent its biggest change since Africans arrived in
> America. The very perception of hair shifted from one of style to statement. And right or
> wrong, Blacks and Whites came to believe that the way Black people wore their hair said
> something about their politics. Hair came to symbolize either a continued move toward
> integration in the American political system or a growing cry for Black power and
> nationalism. Many African Americans began to use their hair as a way to show a visible
> connection to their African ancestors and Blacks throughout the diaspora. It was an era in
> which hair took a prime spot—right next to placards, amendments, and marches—in
> defining a Black identity for the world at large (p. 51).

As a hairstyle, the Afro exploits the characteristics of Black hair and is therefore not replicable

by those who do not have thick, kinky hair without altering the chemical structure of the hair

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[7] The term conking refers to *congolene*, which was a substance used by African American men to chemically alter
the structure of hair (*Conk, Afro, Jheri Curl & Dreadlocks - Black Hair History*, n.d.). In many ways, conk is the
predecessor to relaxers like Dark & Lovely and *ORS Olive Oil* which are lye free.

itself. The Afro was also a hairstyle that was replicated throughout the African diaspora. As a style that was largely only achievable on Black hair, it could also be worn as a symbol of Pan-Africanist solidarity.

In a context such as the one described above, the re-emergence of Black hairstyles and grooming techniques is often framed as an act of reclaiming part of the Black identity (Rosado, 2003, 2007). Thompson (2009) points out that the adoption of natural hairstyles continues to be used as a way to reclaim and present a political identity. In line with arguments made earlier in this literature review, hair not only became a symbol of Blackness and African ancestry, but was also used to differentiate between those who are pro-Black people and those who are seen as ashamed of their Blackness. Similarly, hair also becomes a tool used by those who might be interested in learning more about their roots as well as a tool for those who are newly attuned to what it means to be Black when anti-Blackness is a global phenomenon (Thompson, 2009, p. 835). The result of such deep historical and political interconnectedness of hair, race, and politics provides some context for the complicated relationship between Black people and hair. As a distinctive signifier of Blackness, hair and how it is styled, and whether or not it is chemically altered continue to be perceived as a way to distinguish between different kinds of Black people. One clear example of this paradoxical relationship is Madam C.J. Walker and her contemporary representations in African American communities. As one of the first Black millionaires, Madam C.J. Walker came to represent Black entrepreneurship and the role of Black women in the Black communities. Indeed, Walker acquired her fortune through the patent and advertisement of hair softeners as well as straightening combs which she advertised door-to-door (Thompson, 2009, p. 834).

Anthropologists, like Casandra Badillo, also explain that this complicated relationship with hair is also experienced across the African diaspora. In her interviews of Black Dominican women, she found that curly hair was perceived as inferior by Black and white Dominican women alike. As such, she writes that curly hair carries "a symbolic weight, a social stigma" (Badillo, 2001, p. 36). Indeed, one of the women interviewed revealed that "Black hair is worse than AIDS. It never goes away" (Badillo, 2001, p. 36). Badillo (2001) proposes that the hatred of Black hair, expressed in the Dominican Republic is emblematic of the country's colonial past as well as its proximity to Haiti and the tension felt between Haitians and Dominicans. Importantly, Badillo (2001) exposes how race informs those attitudes. Indeed, another participant shared that although Black women are ridiculed and stigmatized for their curly hair, white women are able to curl their hair without facing that discrimination. According to Badillo (2001, p. 7), this double standard can be explained since Black hair, its kinks and curl patterns continue to be perceived as a direct externalization of race. Badillo's (2001) ethnographic work and Rosado's research (2003, 2007) shows how hair has been and continues to be used as a signifier of race and racial inferiority. This was communicated by one of Badillo's interviewees who explained her decision to stop straightening her hair by explaining that refusal to abide by anti-Black perceptions of Black hair is important in reclaiming agency over your body. Indeed, she described the experience as akin to letting go of a kind of racist baggage. She explains that "when you quit straightening, you feel free, you break the chain that you used to carry on your head before" (Badillo, 2001, p. 37).

Alternatively, hair can also be something that Black Dominican use to distance themselves from Blackness and its accompanying stereotypes (Badillo, 2001). The Black Dominican women interviewed by Badillo (2001) also described how hair can be a space where

they can mitigate the effects of racism. Unlike the colour of skin and other genotypical features which can never fully be altered, one's hair and the products and tools necessary to alter it are readily available. Said differently, hair can be chemically or physically straightened to hide its natural state and, in a way, subverts Blackness and its negative implications. Similarly, hair that is straightened signals an attempt by these women to assimilate into whiteness and can be recognized as such by other Black women and the rest of the world. It is for that reason that the re-appropriation of Black hair is such a powerful practice. With this in mind, Thomas (2013) traces the significance that Black hair has adopted throughout history. Starting in pre-colonial Africa and ending in the post-colonial United States, she argues that Black hair has been hyper-visible because of its unique texture and nature. She writes that the Western hair hierarchy places short, straight hair at the bottom of this hierarchy and promotes long straight hair as inherently feminine (Thomas, 2013, p. 1). She also notes that Black women when they embark on their "natural hair journey" are often confronted with the ideological weight of Black hair. This "masked ideology" maintains that Black hair, in its natural state, is somehow an antithesis to Western societies and civility (Hebdige, 1979 in Thomas, 2013, p. 1). She argues that this ideology exists "beneath the consciousness of Black women" (Thomas, 2001, p. 2) and is often accepted by Black women and internalized in Black communities even as other negative stereotypes are rejected.

Discussions about the aesthetics of Black hair and its political implications have also resurged in popular culture and media. From Chris Rock's 2009 documentary Good Hair to Solange Knowles' Don't Touch My Hair from her critically acclaimed album A Seat at The Table, and HBO's horror-comedy Bad Hair, Black hair has re-entered the mainstream, a domain it has perhaps never left. Although Good Hair (2009) was initially revered for its honest

approach to the Black hair industry, more and more critiques are reflecting on the legacy of the documentary. Back in 2009, Alynda Wheat (2009) wrote that although the documentary approaches its central theme with humour simply presenting Black women who get their hair chemically straightened or wear wigs, and weaves as women who "want to be white" oversimplifies and pathologizes decisions made by Black women about their hair. She also notes that white women also alter their hair but without the scrutiny that plagues Black women. Another, more recent, critique of Rock's documentary by Joi Carr (2013) highlights some pitfalls and shortcomings of the documentary. Mainly, the documentary misses the opportunity to discuss the historical trajectory that would lead to the commodification of "good hair" into a billion-dollar industry as well as ideologies that allow for such strict distinctions between good and bad hair to be maintained (Carr, 2013, pp. 55–58).

Contrarily, more positive representations of Black hair such as songs like Solange's Don't Touch My Hair and Beyoncé's Formation present natural hair as sacred. Indeed, Henry (2018) writes that Solange's hair aesthetics "functions as a resistance to the invisibility young Black women experience within society" (Henry, 2018, p. 8) especially as someone who has continuously been seen wearing their natural hair. Furthermore, Henry (2018) notes that Solange's lyrics and the motifs she is evoking represent her understanding of Black hair as a "sacred dimension of one's being" (pp. 8-9). On the other hand, Beyoncé's Formation has been perceived as the re-assertion of her Blackness, a repositioning that resulted in controversy and a call by police unions to boycott the world tour of the same name (Hassan et al., 2016). This repositioning is expressed through the music and the visuals produced for the visual album. When it comes to hair, Beyoncé is heard singing "I like my baby hair and afros / I like my negro nose with Jackson Five nostrils". Here, Henry (2018) proposes that Beyoncé's uses the line to

respond to criticism she has received for the perceived unkemptness of her daughter Blue Ivy's hair as well as a way to highlight "a key mark of Black racial identity: one's hair" (p. 10). These different discursive approaches to the representation of the complicated relationship that Black people have with their hair range in approaches and perspectives but are anchored by the history and controversies surrounding Black hair.

Although Black hair continues to be a contested terrain (see Griffith, 2019; Guzman & Hamedy, 2020; Jackson, 2020), legislation such as the Crown Act aims at remedying issues surrounding hair discrimination in the United States. The bill which was briefly mentioned in the introduction has been passed by states including New York, New Jersey, Virginia, California, Colorado, and Maryland (Griffith, 2019; Guzman & Hamedy, 2020; D. Jackson, 2020; Tannenbaum, 2020). These bans have been implemented to prevent hair-based discrimination that has seen Black people being expelled from school, being denied jobs, and in some cases getting their hair cut by teachers and coaches. Comparatively, no such legislation exists in Canada although instances of hair-based discrimination continue to be reported by news outlets (Cecco, 2020; Jackson, 2021).

The African philosophy of hair

As noted by the above literature review, the relationship between Black people and their hair is very complicated. As such, Omotoso proposes the African philosophy of hair as a way to contextualize the role that hair plays in African communities on the continent and across its diaspora. Omotoso's (2018a) writing provides an argument and a contextualization for such an approach to Black hair. Indeed, they demonstrate the need for a philosophy of hair to illuminate the complex relationships that Africans and their descendants have with their hair. For Omotoso

(2018a), this complexity reflects African epistemologies and ways of seeing and interacting with the world. The African philosophy of hair reflects on the deep historical and social significance of hair as an ontological and epistemological object. As mentioned earlier, hair and hairstyles were used to communicate and differentiate between African ethnic groups. Hair was also considered a gateway to the divine and, as such, provided a space for metaphysical encounters between Africans and gods.

Omotoso (2018) makes the case that this philosophical approach is necessary to understand both the relationship Africans on the continent and in the diaspora have with their hair as well as the hair grooming practices of Africans living on the continent and those living in the diaspora. This approach fundamentally reconceptualizes more commonly held beliefs about hair and its socio-cultural role. Therefore, Omotoso (2018) calls for a study of hair that accounts for African epistemology. Here, African accounts for the ways Africans "conceptualize, interpret, and apprehend reality within the context of African cultural or collective experiences" (Anyanwu, 1983, p. 60 in Omotoso, 2018, p. 8). An African philosophy of hair addresses both the physical and spiritual features of hair in its capacity as a tool for identity. As mentioned above, research by social anthropologists has also shown that hair, as early as in the fifteenth century, was used to send messages among ethnic groups including the Mendes, Wolofs, Yorubas, as well as among other West African ethnic groups (Byrd & Tharps, 2014, pp. 2–14; Omotoso, 2018b). A study, such as this thesis, takes the African philosophy of hair as an initial framework through which the relationship between hair aesthetics and identity formation. Adopting the African philosophy of hair necessary for the development of scholarship that explores new ways of understanding and describing cultural processes.

The digital and Black hair: framing hair braiding as technological

Up to this point, this literature review has provided a historical overview of the role of hair throughout Africa and its diaspora. Following this discussion, the remainder of this chapter will explore the role of hair grooming practices such as hair braiding as communicative and technological practices. Doing so provides the terrain for a theory of diasporic transindividuation to emerge before it is further developed in the following chapter. Situating practices like hair braiding within the realm of technology begins with the conception of race as technology. Said differently, if race itself is technological, hairstyles also belong to that category since they are intimately related to race and ethnicity. To that end, positioning race as a technology provides a way to understand how it can act as a "mode of mediatization" (Chun, 2012, p. 38).This position creates space for a study of the "carefully crafted, historically inflected systems of tools, or mediation, or of "enframing" that builds history and identity" (Chun, 2009, p. 1). As such, racial categorizations and their related stereotypes have become commonplace markers of difference where certain practices along with phenotypical features can be accurately correlated to identify someone's assumed race. Furthermore, Chun shows that race is indeed technological by attending to the many attempts to engineer a perfect race. Here, legacies of eugenics and eugenicists policies provide further evidence that race is itself a technological object. Historically, those who have tried to engineer the "perfect race" have done so using techniques such as segregation, forced sterilization, and other restrictions on interracial relationships and procreation to ensure they would rid themselves of the impurities carried by the "races" that were deemed inferior. In this case, race became a signifier of both genetic and social differences.

Chun (2009/2012) concludes that if race is a signifier of difference, then whiteness has been made to exist outside the confines of race. Similarly, the field of critical whiteness studies has also tried to understand how the emergence of racial categories also leads to an apparent lack

of awareness surrounding what it means to be white (see Bonilla-Silva, 2012; Doane & Bonilla-Silva, 2003; Kolchin, 2002; McWhorter, 2005). Indeed, the perceived pervasiveness of whiteness places race and racialization outside whiteness. Here, whiteness takes precedence and racialization becomes the way to explain genetic differences expressed through physical and social characteristics that were different than the default. Race, then should be interpreted as a technology because it functions as a signifier and exists as more than a biological or social category and its affordances continue to be mobilized to oppress as well as to resist oppression (Chun, 2009, 2012). For Benjamin (2019), the pervasiveness of the inequities that followed the creation and mobilization of racial categories transformed race into an object that could be manipulated and deployed through a range of technological objects. She writes that her book Race After Technology: Abolitionist Tools for the New Jim Code explores:

> how race itself is a kind of technology – one designed to separate, stratify, and sanctify the many forms of injustice experienced by members of racialized groups, but one that people routinely reimagine and redeploy to their own ends (Benjamin, 2019, p. 19).

She points to the pervasiveness of these categorizations could be arranged and used to justify disfranchisement for some and emancipation for others. Benjamin (2019) argues that reassessing the relationship between race and technology allows for race to emerge as a toolbox that racialized folks can draw from to mitigate the effects of racism. Therefore, the characterization of race as a technology is necessary if we want to understand how it adapts and evolves from one social context to the other. Said differently, the affordances of race as a socio-historical categorization might manifest themselves differently across different points in space and across time.

Ethnomathematics and African Fractals

The desire to characterize race as a technology is also a reflection of work done in the field of ethnomathematics. Indeed, as a field of study ethnomathematics is interested in investigating "mathematical knowledge in small scale indigenous culture" (Eglash, 1997, p. 79). As an anthropology of mathematics, ethnomathematics help deconstruct and redefine what constitutes mathematics outside Eurocentric scholarship. Ron Eglash's work on mathematical concepts in sub-Saharan African communities highlights the entanglement of mathematics with social and cultural phenomena. Eglash writes that the field of ethnomathematics asks that anthropologists and mathematicians reconsider "fundamental questions for the social and philosophical studies of mathematics" (Eglash, 1997, p. 79). As such, as a field of study, ethnomathematics requires that we re-evaluate what we think of as 'mathematical'. These basic assumptions have supported his research on fractals, a geometric unit that is characterized by the recurrence of patterns on an ever-diminishing scale (Eglash, 1999, p. 4; Figure 3). Fractals are also characterized by five geometric components: recursion, scaling, infinity, and fractal dimension.
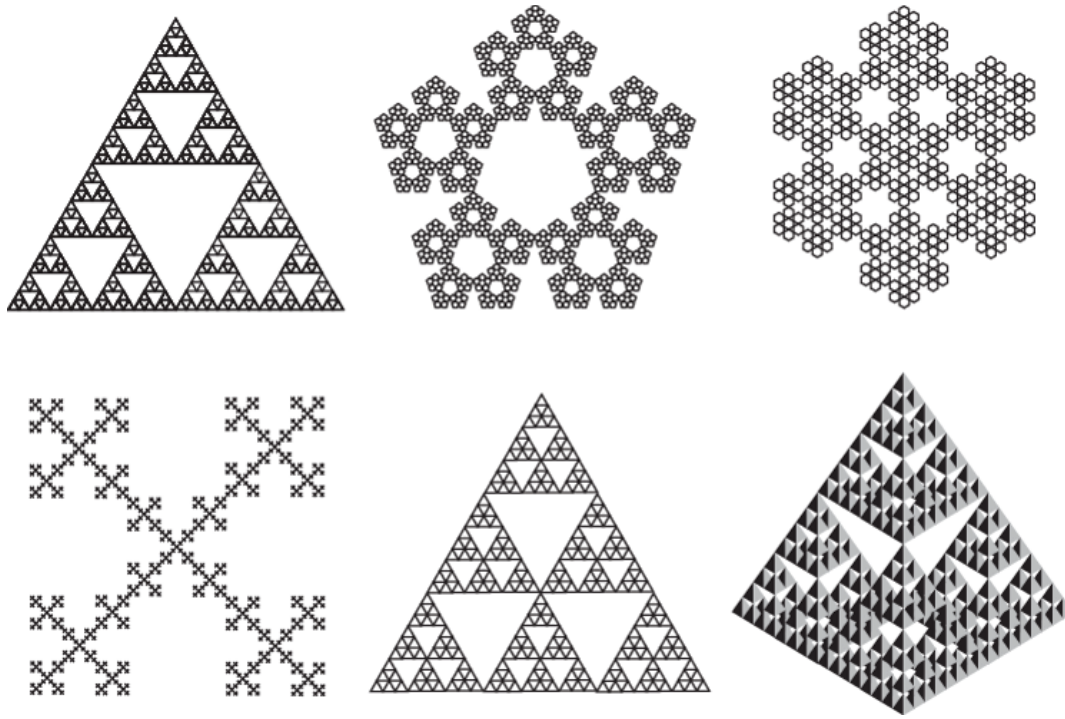
Figure 3. Example of nestled fractals (courtesy of Masanori Hino). From Hino, M. (2007). Martingale dimensions for fractals. *The Annals of Probability,* 36. https://doi.org/10.1214/07-AOP349.

Eglash (1999) differentiates between European and African fractals since African fractals usually emerge in the "realm of culture" unlike fractals observed in Europe which come from a desire to "mimic nature" (p. 51). In other words, African fractals reflect the embeddedness of mathematics in the African cultures observed during Eglash fieldwork. Indeed, he notes that fractals are often found in many cultural practices such as traditional hairstyling, textiles, carving, games, craft, and painting (Eglash, 1999, p. 7).

The work of Ron Eglash on African fractals has also been taken up by scholars in the African diaspora. Gloria Gilmer's work on ethno-computing work is one of the many examples of work on her observation of fractal geometry in African American hairstyles. As a matter of fact, Gilmer observed patterns made up of tessellating squares and triangles which consistently reappeared throughout African American hair braiding styles. As a geometric pattern, tessellations (Figure 4) are defined by the "filling up of a two-dimensional space by congruent

copies of a figure that do not overlap" (Gilmer, 1998). Similarly, Chapter 10 of African

Mathematics: From bones to computers is in part concerned with a discussion of tessellations

and their applications in African cultures. In fact, Bangura (2011) references much of Gilmer's

work with African American hair stylists and her observations of tessellations in braided

hairstyles found in Black communities.

Figure 4. Artistic rendition of tessellating patterns (courtesy of Maurits Cornelis Escher). From Escher, M. C. (n.d.). *Symmetry, 1937—1967*. M.C. Escher - The Official Website. Retrieved October 20, 2021, from https://mcescher.com/gallery/symmetry/.

The fields of science, technology, engineering, and math (STEM) have also produced

work that examines how computational thinking could be taught to students from differing socio-

cultural contexts. As such, emerging STEM research has focused on understanding and

developing tools to teach STEM subjects using Culturally Situated Design Tools (CSDT). These

design tools involve "a suite of computer simulations of indigenous and vernacular artifacts and

practices" that are meant to bridge learning gaps by using culturally relevant concepts as learning

tools (Eglash et al., 2006, p. 347). Indeed, Lachney et al (2019) remind us that the purpose of

CSDTs such as Cornrow Curves (Figure) is not to impose "western math on 'accidental' fractal patterns" but rather to recognize the mathematical rules and patterns that have emerged outside the West and to bridge "different computational traditions" (pp. 4-5).
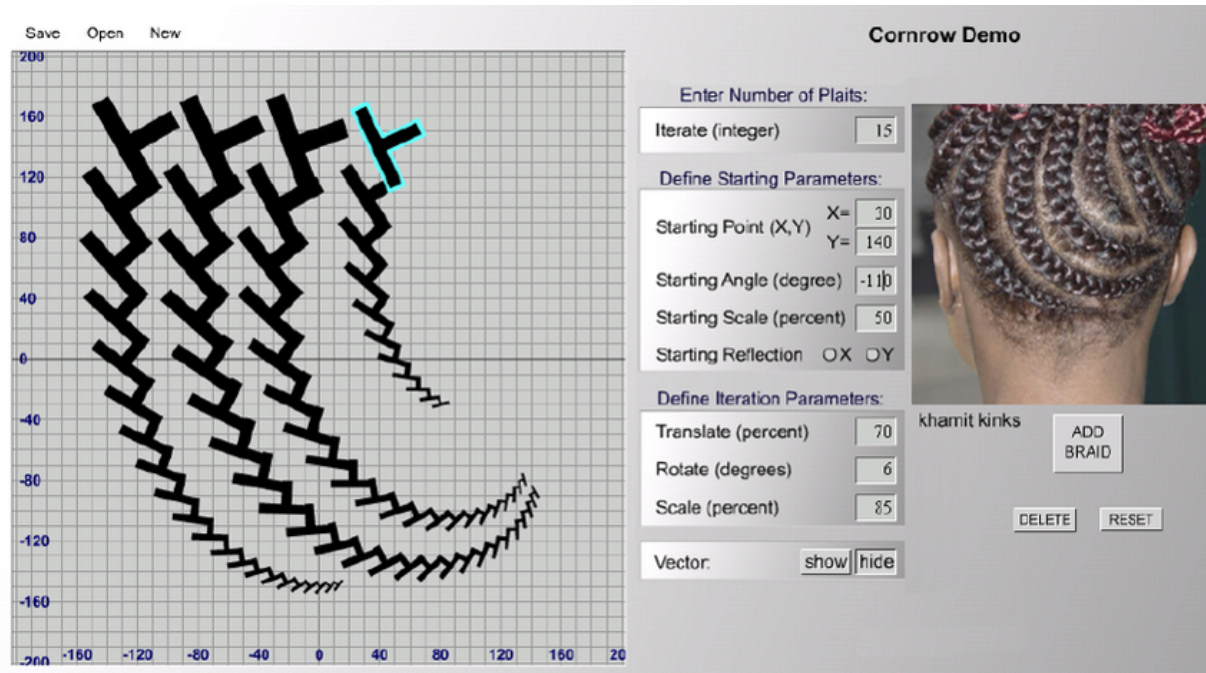
Figure 5. Screen capture of the Cornrow Curves Software. From Eglash, R., Bennett, A., O'donnell, C., Jennings, S., & Cintorino, M. (2006). Culturally situated design tools: Ethnocomputing from field site to classroom. *American Anthropologist*, 108(2), 347–362.

Finally, in the arts, Mutiti's workshop-and-exhibit Ruka (to knit/to braid /to weave) showcases the relationship between hair braiding and mathematics (Figure 5). In a description of the exhibit found on her website, she notes that in the Shona language, the word Ruka denotes braiding as well as the "production methods of weaving and knitting" (Mutiti, 2017).
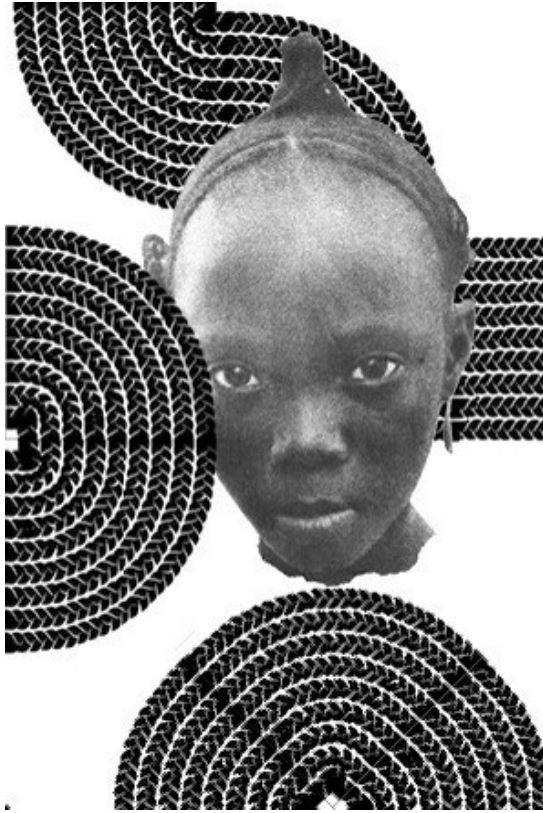
Figure 6. Image of a young African woman superimposed with digitally generated braided patterns from the exhibition-and-workshop Ruka *(to knit/to braid/to weave)* (courtesy of Nontsikelelo Mutiti). From Mutiti, N. (2017, March 4). *The Digital and Black Hair*. Nontsikelelo Mutiti. http://nontsikelelomutiti.com/2017/03/04/the-digital-in-black-hair-aesthetics/.

Reflecting on the project she writes that:

> The execution and repetition of a series of procedures produce the patterns we see as braids. It is this closed system of rules that allows for variable patterns to evolve. In a manner akin to the precision of a laser cutter burning and etching image into material the braider maps and parts the hair in preparation for plaiting a series of cornrows. The sectioning of the hair is done with mathematical understanding (Mutiti, 2017).

She has also used what she calls the "algorithmic logics of hair braiding" to produce collages of braids in Adobe Illustrator which are screen-printed, and which were on display during Ruka(to braid/to knit/to weave) held at Recess in New York City. Mutiti (2017) used her own experience of getting her hair braided and braiding her own hair to produce work that situates hair braiding as a technologically salient practice.

Summary

This chapter offered an overview of the history of Black hair as well as a justification for a study of hair grooming as a communicative practice. This literature review began in pre-colonial Africa where hair represented a gateway for the gods, a marker of ethnicity, social, and class status. These considerations were re-evaluated following transatlantic slavery and the Middle-Passage which resulted in the degradation of Black hair which, along with a range of racist justifications, were used to rationalize the enslavement of Africans. As such, the literature review attended to the way movements like The Harlem Renaissance, Rastafari, and the Black Power movement used Afrocentric aesthetics and ontologies to try to repair some of the damage and trauma endured by the ancestors of the formerly enslaved. Hairstyles, such as dreadlocks and Afros, were discussed as outward displays of pride in African ancestry and a clear rejection of anti-Black racism. The representation of Black hair in popular media was also briefly discussed as a reflection of the hair trauma suffered by African Americans. Finally, I discussed the African philosophy of hair, a term introduced by Omotoso (2018a), to provide a bridge between the beginning of this chapter and the ensuing review of work on the mathematical significance of hair grooming practices such as hair braiding. Following this discussion, the chapter explored the role of hair braiding in ethnomathematics, specifically Culturally Situated Design Tools (CSDT) such as Cornrow Curves. This chapter is supported by the work of Ayana D. Byrd and Lori L. Tharps on the history of Black hair in the United States (2014) along with Sybille Rosado's (2003, 2007) writing on the 'grammar of hair', Sharon Adetutu Omotoso's (2015, 2018a, 2018b) writing on the "African philosophy of hair", and the work of Ron Eglash and collaborators on ethnomathematics, African fractals, and Culturally Situated Design Tools (Eglash, 1997, 1999; Eglash et al., 2006; Lachney et al., 2019). This literature review aimed to provide a justification

for the study of hair grooming practices in communications studies by highlighting the historical and social significance of Black hair. This chapter concluded with a discussion of hair and hair grooming practices as technologies in and of themselves. This discussion serves as further justification for the study of hair braiding as a communicative practice. The discussion also serves as an introduction to the theoretical framework that is presented in the following chapter. Although it will be fully fleshed out in the next chapter, the theory of diasporic transindividuation reflects the historical significance of hair and hair grooming practices for Black people across the globe.

Chapter Two: Black cyborg subjectivity and diasporic identity: towards a theory of diasporic transindividuation

Recent scholarship on media and technology, and specifically, work that focuses on the generative capabilities of race provides the building blocks for a theory of Afrofuturist media and technology that allows diasporic subjects to engage the past and future in a range of practices. While hair-braiding is not often included in these discussions, the central claim of this thesis is that hair-braiding should be treated as an Afrofuturist media technology that play an important role in the Black diasporic experience. This chapter is concerned with describing how a theoretical perspective which focuses on the role of hair-braiding in diasporic experience is necessary to understand how experiences of diaspora differ between people with similar origins. Paying close attention to the experiences of continental Africans[8] living in Eastern Canada will also provide a distinctively Canadian perspective which has been missing from the scholarship reviewed in the previous chapter. This chapter proposes Black cyborg subjectivity and diasporic transindividuation as ways to understand the role that hair-braiding play in the diasporic experiences of continental Africans which have, until now, been ignored in favour of African American, Caribbean, or Black British perspectives on experiencing diaspora and belonging.

While the literature has acknowledged the similarities between Afrofuturism and Donna Haraway's cyborg subjectivity (Ramírez, 2008; Maynard, 2018), a specific theory of Black cyborg subjectivity that creates a dialogue between Hawaray's work and Afrofuturism has yet to be proposed. In other words, the subjectivity of the Black diasporic subject has not yet been studied through the lens of Afrofuturism and cyborg subjectivity. Thinking in terms of Black

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[8] I use the term continental African women to identity women of African origin who live in Canada. Although one participant is Haitian, Haiti is often considered the "most African" Black colony. Indeed, when Haiti gained its independence in 1804, they established themselves as the first Black republic (Knight, 2000). Given this historical context, Haitian women are included in my use of the term continental African.

cyborg subjectivity fosters a nuanced understanding of how race comes to mediate everyday interactions and practices and is, in turn, mediated and imagined through those means. Indeed, the subjectivity of the diasporic subject emerges outside the realms of Humanity, a classifier that was reluctantly afforded to Black subjects. Paying attention to how Black cyborg subjectivity operates allows us to complicate ideas of how race, culture, and memory, come together in everyday practices. Moreover, it makes it possible to produce an understanding of hair braiding as a transformative and technological practice.

This chapter proposes Black cyborg subjectivity and diasporic transindividuation as lenses through which embodied practices, such as hair braiding, can be studied. In essence, this chapter develops a theoretical analysis of how subjectivities emerge between the increasingly blurred lines of humans and non-humans (Haraway, 2006; Maynard, 2018). By its very nature, Black cyborg subjectivity appropriates and transforms modernity's mission of "making humans" (Haraway, 2006; Stiegler, 2012) for the purpose of Black joy and liberation.

A theory of Black cyborg subjectivity also rejects the divides erected by colonialism and works toward reuniting diasporic Africans with their kin. As a pan-Africanist project, Black cyborg subjectivity is guided by the conviction that a recognition of the globalized nature of anti-Blackness is necessary for the "reconstruction of the psyche, the mind, the being and the essence of a black African man and woman" (Oloruntoba, 2015, p. 8). I argue that the practice of hair braiding, in the African diaspora, fosters moments of diasporic transindividuation project Black people into a world where the borders between Black Africans and the diaspora are erased. My hope is that providing a sketch of Black cyborg subjectivity will allow scholars working at the intersections of African studies and communication studies and other fields with a new way of understanding the relationship between technology, culture, race, and identity.

This chapter begins with an overview of key theoretical perspectives that inform the theory of Black cyborg subjectivity. Those perspectives include the epistemes of the South (de Sousa Santos, 2018), cyborg subjectivity (Haraway, 2006), Afrofuturism (Bristow, 2012; Elia, 2014, 2014; Eshun, 2003), and Black Caribbean sociolinguistics (Warner-Lewis, 1997, 2003). This will be followed by a discussion of Stiegler's (1998, 2012) work on individuation, technics, and time. Since Bernard Stiegler's work on individuation forms the basis of the theory of Black cyborg subjectivity and diasporic transindividuation, his contribution will be discussed in detail. Although transindividuation provides an epistemological starting point, it has yet to be mobilized along with a methodological framework. This chapter will conclude with a discussion of diasporic transindividuation and its contribution to the study of diasporic subjectivities. The methodological implications of mobilizing such a frame of analysis will be discussed in the following chapter which focuses on methodology.

As a mode of subjectivity, Black cyborg subjectivity reflects the liminality of a kind of being that is antithetical to whiteness. As such, diasporic transindividuation is a technique used by the Black cyborg to reconcile the inherent contradictions of exclusions made on the basis of race (Chun, 2009; Haraway, 2006). As a theoretical framework, diasporic transindividuation is defined as the externalization of the collective memory of the Black diaspora through cultural practices and techniques which include hair braiding. It also exposes the role that race plays as a signifier that continuously needs to find ways to discredit recent conceptualizations of racialization as a social construction (Chun, 2009). As mentioned above, while the theory of transindividuation continues to be a useful approach to collective identity formation, no methodological framework has been developed using this approach. Developing these theoretical and methodological frameworks makes it possible to study Black hair braiding (in general and

cornrows in particular) as a decolonial and communicative practice. Understanding how hair braiding act as a catalyst for moments of diasporic transindividuation acknowledges that although race is a socially constructed and somewhat slippery category, its impact on the lives of racialized people is very real. It provides a space to reflect on the imaginary and mediated nature of race as well as produce an understanding of the cultural practices of racialized groups as transfigurative and technological.

In this framework, hair braiding exists as a cultural practice and hair as a digital media which involves the movement of the fingers and the mathematical knowledge required for hair to be braided in certain shapes and patterns. Establishing diasporic transindividuation allows us to "explore both Black subversion as well as new otherworldly opportunities for Black life" (Maynard, 2018, p. 34). In other words, a theory of diasporic transindividuation also allows for innovative ways to think about and conceptualize resistance to anti-Blackness. Thus, I argue that expanding definitions of technology and communication allows for the inclusion of practices such as hair braiding in the fields of communication and media studies. As well, this framework provides scholars who are interested in working at the intersections of Black studies, critical race theory and communication studies a new set of research questions and approaches.

Why a theory of Black (cyborg) subjectivities: returning to the epistemologies of the South

In The end of the cognitive empire, Boaventura de Sousa Santos (2018) argues for a return to the epistemologies of the South. He writes that by recovering and developing these epistemologies, "that which does not even appear as knowledge in the light of the dominant epistemologies" (de Sousa Santos, 2018, p. 2) can become intellectually relevant. The development and implementation of these alternative epistemologies through academe will ensure that the inclusion of practices such as weaving, knitting, and hair braiding which are

routinely dismissed as frivolous and self-indulgent activities be considered relevant in studies of alternative espistemologies (Clarke, 2016; Ey, 2019; Harrison & Ogden, 2019). In other words, developing the epistemologies of the South creates space to study the impact and importance of cultural practices, such as hair braiding, beyond aesthetics. de Sousa Santos (2018) also asks of those who wish to embrace the epistemologies of the South that we reassess what ways of knowing are prioritized as more legitimate in becoming knowledgeable or educated. He asks that those epistemological traditions be critically assessed in light of epistemological colonialism and eurocentrism (de Sousa Santos, 2018, pp. 21–22). This process, he argues is only possible when the epistemological and ontological abyssal lines traced by colonialism are made visible. He notes that although most conversations about European colonialism focus on the appropriation of labour and cultural genocide as the main forms of colonization, the dismissal of the epistemologies and intellectual traditions of the colonized was essential in the justification of European dominion over the world.

In this context, colonized subjects were not only dismissed as subhuman, their ways of thinking and interacting with the world were relegated to the realm of the animalistic and spiritual. As a result, these metaphorical abyssal lines represent a vestige of coloniality which continues to find inherent differences between the global North & South, the colonizer and the colonized, and intellectual traditions emerging from Europe versus elsewhere. In a similar vein, Maldonado-Torres (2007, p. 242) argues that the differentiation between the colonizer and the colonized has implications for intellectual thought (in de Sousa Santos, 2018, p. 20). Said differently, the supposed inhumanity of the colonized rendered them incapable of nuanced and complicated thinking that was exhibited by Europeans. That similar philosophical and scientific traditions were not observed in colonies justified their oppression, in the first place. Fanon (1968,

p. 37) also makes similar remarks when writing that the colonial relations make it possible for the animal to become man "during the same process by which it feels free" (as cited in de Sousa Santos, 2018, p. 20). The European man became free through an educated and philosophical assertion of its own humanity. Similarly, Fanon (1968) reminds us that for the colonizer, that the global South has not been recognized as doing so prevents its inhabitants from freeing themselves and becoming Human.

The abyssal line drawn by colonialism relies on and requires that its targets suffer from a diminished capacity for humanity or the "ontological *capitis diminutio*" identified by de Sousa Santos (2018, p. 23). As such, European critical theory which emerged along its European colonialism and imperialism centers these abyssal differences between the colonizer and the colonized. Considering these perceived differences, an epistemology of the South is also an epistemology of recovery. In other words, the issue is not that colonized people have not produced knowledge, the problem is whether or not what has and continues to be produced is considered knowledge in the first place. Therefore, the epistemologies of the South work to not only make the abyssal lines visible but to reassess the role of the colonized in knowledge production. By going beyond simply establishing its subject as human, the epistemologies of the South necessitate that we take seriously material and non-material contributions that have been made to intellectual traditions. With this in mind, de Sousa Santos (2018) advocates for an epistemological tradition of absences. The framework of the epistemologies of the South supports this thesis by providing a theoretical and ethical justification to such a research project. Rather than asking that these practices be taken seriously by the academy simply because of the legacy of intellectual colonialism experienced by Black people, it aims to show that these practices are important because they provide alternative ways of knowing and interpreting

cultural knowledge. An investment in the epistemologies of the South requires that alternative

forms of knowledge production be treated with the same rigour and interest that is usually

accorded to Western scientific thought. This, according to de Sousa Santos (2018), allows the

"oppressed social groups to represent the world as their own and in their own terms" (p. 29).

This commitment to the epistemologies of the South also allows for alternative forms of

knowledge production to widen the narrow scope of Western scholarship.

Cyborg subjectivity & Afrofuturism: thinking through and extending the body

Donna Haraway's writing on the cyborg provides a thought experiment on what it means

to be human. She illuminates the slippery nature of categorizations such as "human" while

warning against a glorification of the Human as a normative category, noting that the marker has

not been afforded to all. Like de Sousa Santos (2018), she is interested in investigating the

implications that come from being rejected from the fold of humanity and how those who are

deemed inhuman might describe themselves. Her reflection on the subjectivation of marginalized

groups allows her to think through the different ways in which we are all human and non-human.

As well, she remarks on how we continually move between the categories of human and

nonhuman. Haraway reflects on the conditional humanity experienced by women of colour by

writing that

> gender, race, or class-consciousness is an achievement forced on us by the terrible
> historical experience of the contradictory social realities of patriarchy, colonialism, and
> capitalism (2006, p. 122).

This read and gendered object offers an adequate starting point for an analysis of Black cyborg

subjectivity. To that end, she writes that the cyborg is a " cybernetic organism, a creature of

social reality as well as a creature of fiction" (Haraway, 2006, p. 117). The social construction of

the human—and therefore the cyborg—is the consequence of entanglements between people,

animals, and technology. This results in a pliability that is reflected in Haraway noting that "the cyborg is a condensed imaged of both imagination and material reality, the two joined centers structuring any possibility of historical transformation" (Haraway, 2006, p. 118). Her addition of race as one of the possible subjectivities adopted by the cyborg subject is integral in my conceptualization of Black cyborg subjectivity.

That Haraway returns to gender and race as exemplifiers of cyborg subjectivities illustrates the constant in-betweenness inhabited by the cyborg. Similarly, the liminal precondition of cyborg subjectivity requires that we "see doubly" (Chun, 2009, p. 22). The double-vision of the cyborg subject is similarly found in the work of W.E.B. Du Bois in his book The Souls of Black Folk. This double-vision described by Du Bois exemplifies the in-betweenness of Blackness as a category and the social and cognitive experience of Black people across the diaspora. This doubling of vision is often expressed in a fragmentation of identity. Indeed, Du Bois (2015) writes that double consciousness results in the reification of conceptions of Blackness as antithetical to whiteness, and therefore humanity. Although double consciousness is primarily a cognitive phenomenon, Du Bois (1903) notes that it forever transformed the interactions Black people have with each other and the world. According to Blau & Brown (2001) double consciousness implies "a tension between bodily and spiritual selves, or a tension between rationality and emotions" (p, 221). The phenomenon of double consciousness also works as a metaphor for the positionality of diasporic Black people. While Du Bois' work significantly predates that of Haraway, the linkages that can be made between these texts highlight the necessity of continued theorization on Black diasporic subjectivation.

Afrofuturism

Another foundational perspective for the theory of Black cyborg subjectivity is Afrofuturism. Coined by Mark Dery, in a 1993 paper, the term was initially used to categorize "speculative fiction that treats African-American themes and addresses African-American concerns in the context of the twentieth-century technoculture" (in Elia, 2014, p. 83). Dery used the term to highlight the contributions to American literary culture made by African Americans as well as to provide a counter-narrative which challenges preconceived notions of the Black Atlantic experience. Afrofuturism also challenged the relationship between Black people and technology while projecting Black people in a future where race was no longer relevant (Elia, 2014, p. 84). Another conceptualization proposed by Kowodo Eshun (2003, p. 291) contended that "Afrofuturism's first priority is to recognize that Africa increasingly exists as an object of futurist projection" (in Elia, 2014, p. 84). As a speculative and corrective concept, Afrofuturism is invested in both the problematizing portrayals of Africa as a dystopia awaiting foreign aid or the next environmental and/or political catastrophe (Elia, 2014, p. 84). As a Pan-Africanist project, Afrofuturism is also a "transnational and transdisciplinary movement based upon the unusual connection between the marginality of allegedly 'primitive' people of the African diaspora and 'modern' technology and science (Elia, 2014, p. 84). As such, Afrofuturism's political and cultural agenda is aimed at correcting what we think we know about Africa and Africans. It is as much about "epistemologically rewriting the history of the past and imagining a positive future for people of African descent" as well as "speculation about the condition of subalternity and the alienation of the past as opposed to aspirations for modernity" (Elia, 2014, p. 84). The afrofuturist project also works to deconstruct and disrupt narratives about people of African descent such as the digital divide and the perception of Africa as socially and technologically inept.

As a literary theory, Afrofuturism also highlights relevant connections between slaves, aliens, and robots as the Other. To that end, Derry (2003) writes that "African Americans are, in a very real sense, the descendants of alien abductees" (pp. 735-736 in Elia, 2014, p. 55). Indeed, the Africans that we brought to American and rightly thought of as aliens or robots; belonging to another world and used to perform 'mechanical jobs' (Elia, 2014, p. 85). Authors such as Octavia E. Butler and Toni Morrison are often cited as early afrofuturist writers. Indeed, Toni Morrison has proposed that African slaves were "the first truly modern people because of the intensity of their experience" (Elia, 2014, p. 86). In a similar vein, Elia (2014) argues that the slaves who were brought to the plantations experienced what Nietzsche would consider "the typical conditions of modernity" (p. 86). Indeed, Elia (2014) notes that those conditions have also previously been conceptualized by W.E.B. Du Bois (p. 86). Indeed, Du Bois' work on double consciousness highlights the constant intrusion of the white gaze upon Black consciousness. By relying on the inherent dehumanization of the African person, slavery differentiated between humans and slaves. The reappropriation of the robot-alien-slave narrative by those who have embraced Afrofuturism has also been used to political ends. Similarly, Eshun (2003) notes that "extra-terrestrially" is a literary trope that is useful to understand the consequences of the "historical forced disturbance of the African way of life, displacement of enslaved Africans, and the production of Black subjectivities" (pp. 298–299). As a result, Black subjectivities articulate their lifeworlds through literary tropes found in science-fiction rather than the other way around. Said differently, the tropes found in science-fiction were initially experienced by enslaved Africans and transposed to science-fiction. As such, Eshun (2003) argues that Afrofuturism appropriates the "constitutive trauma of slavery" (p. 299) in science-fiction to argue that the Black diaspora has always been its own alien nation.

The final contribution that Afrofuturism makes to this theoretical framework is found in its interest in problematizing the 'technological'. Keeling (2019) notes that Afrofuturism's interest in technology is rooted in try understand the influence of the "digital regime of the image/sound perception" (p. 59) on Black imagination. In her opinion, this approach to the technological necessitates doing away with the distinctions between humans and technology. Those distinctions, she writes, make it possible to understand how Blackness is constructed and taken up as a technological invention. She contends that the construction of Blackness necessitates modes of individuation that exist beyond whiteness (Keeling, 2019, p. 59). As such, Keeling's Afrofuturism relies on socio-theoretical perspectives that create spaces for Blackness to emerge and grow outside of the white gaze and through an array of means such as film, music, and literature.

Language & myth: rethinking cultural transmission between Africa and its Diaspora

A theory of Black cyborg subjectivity also pays attention to the ways in which connections and links between Africa and its diaspora have been preserved. The work of sociolinguist Maureen Warner-Lewis has been instrumental in challenging the idea that people of African descent have been disconnected from the African continent. Indeed, her work focuses on the survival of West African cultural and linguistic practices throughout the Caribbean. She notes that:

> the proposition that the survival and/or continued use of even one African lexical term item in a West Atlantic location is evidence of an integral link, at some point in time, between particular ethnolinguistic groups—or even one individual of this group—and the practice and belief to which the term relate (Warner-Lewis, 2003, p. xxii).

She notes that this idea of total separation between diasporic Africans and the continent is the result of academic resistance to the affirmation that Caribbean societies began on the plantation.

This "cultural amnesia" she notes, has only been applied to people of African descent unlike people of other ethnicities that also made their way to the Caribbean (Warner-Lewis, 2003, p. xxiv). This assumption of a disconnect between these cultures is also reflected in framing the Middle-Passage as a merely traumatic experience that has left diasporic Africans completely disconnected from "their sense of history and tradition" (Brathwaite, 1981, p.7 in Warner-Lewis, 2003, p. xxiv). Said differently, Warner-Lewis proposes that we reconsider that the trauma of slavery left Africans without access to a cultural memory that the Africans who were not enslaved continued to have access to. To that end, she notes that while it is true that the culture of African slaves was dismissed by the slaveholders, the slaves did not see themselves as property and continued to define themselves beyond their status as slaves (Warner-Lewis, 2003, p. xxv).

Warner-Lewis (2003) argues that the level of self-determination and personhood experienced by enslaved Africans was often expressed through linguistic means. Indeed, many slaveholders preferred people from specific parts of what is now known as West Africa. This preference for certain regions and ethnic groups meant that those who were capture were often brought together in linguistic groups that often also congregated once on the plantation (Warner-Lewis, 2003). The argument for this "cultural nakedness" then, is the result of two erroneous assumptions. The first being that, unlike Warner-Lewis' assertion, the Africans who reached the plantations were picked at random and that cultural institutions, which were not accessible during the Middle-Passage are what provide the requirements for socio-cultural life (Mintz & Price, 1992, p. 18 in Warner-Lewis, 2003, pp. xxvii-xxviii). A theory of Black cyborg subjectivity recognizes that although enslaved Africans were taken from their land, they were not necessarily stripped of their cultural and social knowledge and practices. Indeed, as Haraway

(2006) notes cyborg subjectivity rejects the rigidity of categories such a gender, culture, and technology. Hence, the inclusion of practices such as games, singing, cooking, grooming and spirituality are cultural phenomena that are worth investigating. Warner-Lewis (1997, 2003) argues that the persistence of these traditions is one way to represent the link between Africa and the Diaspora. She also notes that while some of the enslaved Africans might have been separated from their immediate family they were also:

> now doubly linked in this symbolic ship brotherhood, were delivered to various islands. This led to people making insistent inquires of later migrants from other islands in order to find out where members of their family had been landed (Warner-Lewis, 2003, p. 39).

To account for that added complexity, the framework Black cyborg subjectivity grants a similar level of cultural agency that is usually granted to European ethnic groups that have migrated through the continent. The theory of Black cyborg subjectivity agrees with Warner-Lewis' (2003) argument that the same assertion that is made when speaking of European dress or cuisine despite documented ethnic differences should also be made for African cultural traditions that have been observed outside of the continent (p. xxix).

Tracing the contours of Black cyborg subjectivity: diasporic transindividuation

Based on the theoretical contributions outlined above, a theory of Black cyborg subjectivity posits that the Black cyborg is a post-modern subject that emerges in the fold between the human and non-human. The Black cyborg exists appropriates the modernist project of "reconfiguring what it means to be human" in radical yet imaginative ways. This realm of subjectivity also divorces itself from the borders that were established in different colonialist projects in order to reunite diasporic Africans with their peoples. As such, the Black cyborg individuates as it encounters fellow diasporic Black people. Similarly, Black cyborg subjectivity

is rooted in Afrofuturism's reimagining of what it means to be human and what Blackness can look like outside of the constraints of whiteness. Black cyborg subjectivity asks that we challenge representations of Africa and Africans by reconsidering how symbolic practices act as attempts by Black people to imagine themselves into being.

A conceptualization of Black cyborg subjectivity also relies on political imagination. The political theory proposed by the Black cyborg is underlined in Chiara Bottici's (2011) writing on the politics of imagination. Bottici (2011) provides the foundation for a theory of politics that moves beyond representational politics and the politics of the everyday. Indeed, Bottici (2011) writes that politics is of the realm of the "imaginal" which she defines as the capacity to imagine a public (p. 31). This ability underlies imaginative politics since they rely on our "being-in-common" (Bottici, 2011, p. 31) both physically and psychologically. A similar argument is made in Benedict Anderson in *Imagined Communities* (Anderson, 2006). Beyond Bottici's argument Anderson (2006) argues that our being-in-common is shaped by a recognition of symbols and rites by groups of people whether they be families or nations. Thinking in terms of political imagination is important since:

> Imagination as the faculty to produce images is radical because it can make present what is absent in the double sense of creating something new, but also in denying fact. As Arendt observed, imagination is central both to our capacity for action, to begin something new in the world, but also to our ability to lie (Bottici, 2011, p. 31).

The political imagination of the Black cyborg is concerned with the initial implication of the imaginal is politics outlined by Bottici (2011). Indeed, the ability to imagine different kinds of being-in-common has driven Black liberation movements throughout history and continues to do so. It can be said that radical the Black tradition is supported by an effort to imagine different conditions for diasporic Black people as well as Africans. To that end, practices such as hair

braiding as well as the mimicry of ancestral hairstyles is, on one hand, about rejecting the negative associations made with anything related to Blackness and, on the other, it works to create the material conditions for thinking differently about what it means to be Black outside of the constrictions of anti-Blackness.

A conceptualization of Black cyborg subjectivity is also exemplified through different modes of individuation, such as hair braiding. Influenced by Gilbert Simondon's work on individuation, Stiegler proposes transindividuation as a cognitive recognition of the mental distinction between ourselves (I) and the groups to which we belong (We) (Simondon, 2005/2020; Stiegler, 2012; Stiegler & Rogoff, 2010). Although Stiegler's work did not account for decolonial practices or a critical approach to race, his work can be reappropriated for the purposes of the Black diasporic cyborg. Simondon's thesis is best understood through two suppositions. The first being that psychic individuation is a process that is constant and the second being that the process of psychic individuation happens through processes of collective and social individuation (Stiegler, 2012, p. 2). The psychic individual is always becoming, and its becoming takes place among others, even if only through the recognition of group belonging. The individual who transindividuates becomes themselves by situating themselves through a collective. As such, transindividuation is both a philosophical and psychoanalytical project. Transindividuation forms the basis for social interaction since the processes through which we become ourselves are in constant dialogue with others. To that end, transindividuation can happen through both psychic and collective individuation. Both processes are related to the attention we pay to ourselves in relation to others. Similarly, both psychic and collective individuation rely on the "formation of attention in which we come to pay attention as a state of being […] conditioned by material techniques" which are practiced and remembered (Stiegler,

2012, pp. 2–3). In other words, processes of individuation rely on our ability to remember and recognize practices that are inherently human, or so to speak. As such, Stiegler argues that the human emerges through a range of technics, writing being the initial one (Howells & Moore, 2013, pp. 38–39).

According to Stiegler, what distinguishes the human from the animal is its feet. He notes that the evolution of bipedalism allowed early humans to liberate themselves from their "anterior field" and freed their hands for "more complex and mediated interactions with the material worlds" which our primate relatives are incapable of (Howells & Moore, 2013, p. 37; Stiegler, 1998). This evolutionary trajectory is significant since Stiegler believes that is not the result of our fully formed intelligence but a processual link between our hands and our minds. Said differently, the emergence of human cognition is the result of our newly found ability to interact with the world in increasingly tactile ways. As Howells & Moore (2013) write, "technical evolution is both analogous to biological evolution and, in its coupling of the human and the material, a continuation of biological evolution" which "places the animal before the human, but also places the anatomical before the cognitive" (p. 37). As such, Stiegler notes that the emergence of human cognition is the result of a succession of engagements with the material world. These "mirror stages" fostered the emergence of human consciousness through its engagement with the material world.

The recognition of humans' physical and cognitive abilities is the result of interaction with the material world. In a similar vein, Howells & Moore propose that while "the cortex is (metaphorically) reflected in the piece of flint, the mirror of technology is also a memory" (2013, p. 38). Howells & Moore (2013) write that:

Selfhood, or interiority, emerges at the site of our nothingness, with the life of the mind (esprit) created, or, as he will say, individuated, by the technical objects through which our existence is externalized; 'the who is nothing without the what' (p. 5).

Cognition then, and the ability for repetition are the result of 'tertiary memory' an "imprint of memory that is structurally prior to even our primary retention" (Bluemink, 2020). The movements that seem innate and that we do without thinking are a reflection of this tertiary memory which when called upon reaffirms our humanity. Tertiary memory is differentiated from primary and secondary memory insofar as it is activated or re-activated through objects or movements (Roberts, 2012, p. 15). Stiegler thus argues that the externalization of memory as technical objects, what he calls mnemotechnics is what constitutes both primary and secondary memory the clearest example being writing (Roberts, 2012, pp. 15–16). Indeed, Roberts (2012) notes that the process of writing which results in grammatisation was made standard, discrete and was materialized (p. 17).

Unlike Simondon, Stiegler argues that psychic individuation is always constituted through technics and therefore separating technical practices from psychic and collective individuation (Roberts, 2012, pp. 17–18). Thus, as long as we interact with the world through technics we are individuating. Here, words, tools, and objects serve as bridges between the physical and psychoanalytical. Stiegler's (2012) argument problematizes conceptualizations of humanity that place cognition as humanity's distinguishing feature. This is where Gilbert Simondon's influence on his work is most recognizable. Simondon similarly argued that the individual and its environment (here 'milieu') are not predisposed but rather they are placed in an "ontogenetic relationship of mutual constitution, or 'transduction' (Howells & Moore, 2013, p. 5). To that end, humanity is invented through the technics it invents. This first technique is writing which transforms speech and thought into discrete, reproducible units. The advent of

writing is the event that frames much of Stiegler's argument. That pictographic writing was

replaced with orthographic writing is the turning point that follows the beginning of bipedalism.

Initially, orthographic writing fosters the ability for writing to break with its mechanical

inscription and reproduction (Roberts, 2012, p. 17). Therefore Roberts (2012) notes that the

reproduction of writing allows for the reader to be constituted outside the confines of time and

space (pp. 18-20). In other words, the idea that we can relate to and "see ourselves" in other

people's writing is a result of the reproducibility and recontextualization that comes with

orthographic writing. To that end, Stiegler writes that:

> The who discovers their textuality in confronting the orthographic deferring and differing
> of identity (or literal synthesis) because, in losing the identity of the same text when they
> read and repeat it in different contexts, it is their own identity that is placed in crisis …At
> the moment when they discover that the same text varies and derives indefinitely in the
> dissemination that is all contextualisation, the reader is caught in a process of irreducible
> différance to the extent that the here and the now, space and time, are irreducible, to the
> extent also that they discover themselves to be textual, themselves to be tissued by past
> statements [énoncés], already-there, their own, those that they have themselves lived, as
> well as those which they have inherited and which must be unceasingly interpreted
> (Stiegler, 1996, p. 72[9]).

As mentioned earlier, Stiegler (2012) takes the advent of bipedalism which "freed up our hands"

as the moment when Human initially emerges. Similarly, Tinnell writes that Stiegler's work on

grammatisation is a "point-by-point techno-historicization of the theory of arche-writing and the

logic of supplementarity" (2015, p. 135). Writing, then, can be considered the predecessor of

much of our technical advances. In other words, how we interact with technical objects can be an

accurate reflection of conscious and unconscious processes implicated in thought (Howells &

Moore, 2013, p. 151). That orthographic writing can be retrieved and shared beyond the

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[9] Translated by Roberts (2012) from Stiegler, B. (1996). *La Technique et Le Temps: 2. La Désorientation*, Paris, Galilée.

constraints of time and space is a result of objects moving us beyond the constraints experienced by our four-footed ancestors. As Roberts (2012) writes: "human culture is the product of technics as the prosthetic relationship between the human and its 'exteriorisation' in matter" (p. 12). In essence, that technics are performed with or without tools also becomes irrelevant since the tools that we use "defines the human as no longer simply a biological being" (Roberts, 2012, p. 12). The evolution of animals into humans then, is preceded by the technical ability for externalization. Stiegler is perhaps the first theorist to highlight the abyssal line that is essential to de Sousa Santos' epistemology. Indeed, Roberts (2012) reminds us that Stiegler is challenging the philosophical approaches to technicity which were popular at the time of writing. Stiegler sees the emergence of technics as the ultimate determinant of culture. Rather than technics being constrained by fixed definitions of technology, rather he is interested in the ways we are "exteriorized into artifacts or organized inorganic matter" (Roberts, 2012, p. 13).

The externalization of memory is the second component of the process of individuation described by Stiegler. He discusses how techniques such as writing act as tools for the externalization of memory (Bluemink, 2020; Stiegler, 2012, pp. 2–6). As such, his argument is underlined by a genesis of media where Human, and Technology evolve alongside the other. This parallel evolution is necessary for the formation of collective memory as tertiary memory. The name he gives this process is grammatisation. Grammatisation is central to conceptualization of transindividuation insofar as it is one of the techniques used to initiate the transition from individual towards collective memory. Indeed, grammatisation is one of the cognitive processes through which individual memory becomes collective memory. When individuals transindividuate, they rely on the collective memory formed by their predecessors. As such, the Black diasporic subject transindividuates as it externalizes its memory through a

wide range of practices. One of those practices is hair braiding. As discussed in the previous

chapter, Rosado (2003) argues that treating hair as grammar uncovers its role as a translator

between members of the Black diaspora. She writes that her interest in studying the grammar of

hair provides "evidence of the unconscious 'grammar' of our culture and its African retentions"

(2003, p. 61).

This thesis is interested in investigating how similarly to writing, hair braiding acts as a

technique through which the externalization of memory is also possible. As such diasporic

transindividuation relates to the ways in which Black diasporic folks come to think of themselves

as part of the African diaspora. As a theoretical framework, diasporic transindividuation is about

investigating the sites of emergence for diasporic identity (Figure).
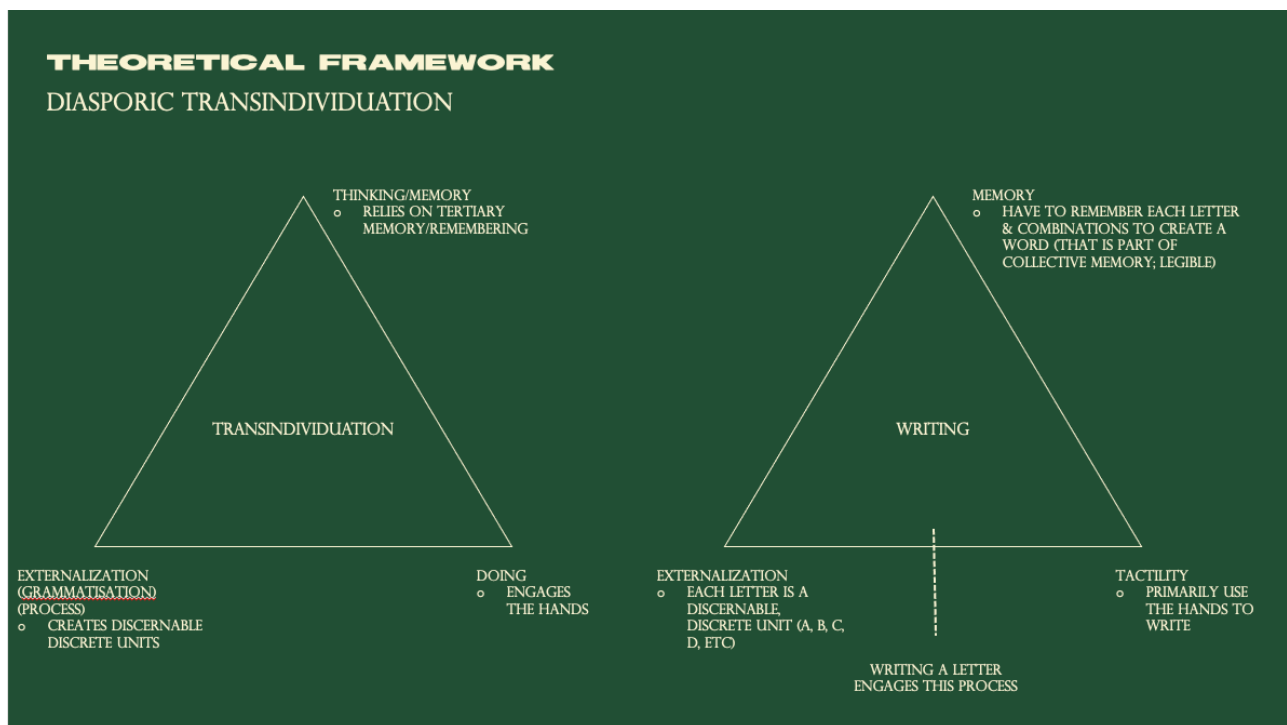
Figure 7. Diagram representing transindividuation and diasporic transindividuation.

The theory of diasporic transindividuation proposed in this thesis exposes the role that

race plays as a signifier that has moved beyond social or biological categories. In such a context,

the diasporic subject individuates because it is at once a form of political imagination and a

decolonial practice. Taking up transindividuation as a lens through which hair braiding can be

studied also allows me to offer an analysis of race that takes into account how hair braiding acts

as both a cultural, transfigurative, and technological practice. Establishing a theory of diasporic

transindividuation makes possible the exploration of "both black subversion as well as new

otherworldly opportunities for black like" (Maynard, 2018, p. 34). A theory of diasporic

transindividuation also proposes different ways to think through resistance to anti-Blackness.

Summary

This chapter has established the theoretical basis for a study of Black diasporic identity formation through the lens of Black cyborg subjectivity and diasporic transindividuation. The epistemologies of the South (de Sousa Santos, 2018), cyborg subjectivity (Haraway, 2006), Afrofuturism (Bristow, 2012; Elia, 2014; Eshun, 2003; Oloruntoba, 2015), Caribbean sociolinguistics (Warner-Lewis, 1997, 2003), and individuation (Howells & Moore, 2013; Stiegler, 1998, 2012; Tinnell, 2015) were some of the theoretical foundations of this chapter. As such, they were defined and evaluated for their usefulness in defining a theory of Black cyborg subjectivity. These theoretical foundations are essential in providing an epistemological basis for the study of Black diasporic subjectivities. de Sousa Santo's (2018) call for a return to the epistemologies of the South included a commitment to recognizing and resisting the intellectual legacy of European colonialism in the global South. This legacy, he argued, was recognizable in the metaphorical abyssal line that separates the colonizer from the colonized, the man from the animal (de Sousa Santos, 2018, pp. 21–24). This was followed by a discussion of cyborg subjectivity and Afrofuturism. Haraway's (2006) description of cyborg subjectivity highlighted the ways in which the qualifier is given to some and denied from others. Her writing also problematized the harsh distinctions made between people and technology. Thinking in terms of cyborg subjectivity acknowledges the increasing connections and interactions between humans, machines, and animals. This was followed by a discussion of Afrofuturism and its contributions to a theory of Black cyborg subjectivity. The reappropriation of robot-slave-alien narratives, the role of marginality in Black subjectivity and literary thought were especially useful in demonstrating how radical conceptualizations of Blackness have continued to emerge in Black intellectual thought. The work of Caribbean sociolinguist Maureen Warner-Lewis (1997, 2003) was also discussed as one of the theoretical foundations of Black cyborg subjectivity. Her

discussion of the presence of West-African culture in the Caribbean, problematizes the claim that the connection between Africa and its diaspora was severed after the Middle-Passage. She noted that the appearance of African cultural and linguistic practices in the Caribbean were likely the result of slaveholders' preference for West African slave ports. Finally, Bernard Stigler's contributions to psychoanalysis, especially his work on individuation, were discussed. Stiegler's writing on individuation, and subsequently transindividuation, provided the epistemological and theoretical justification for a study of Black cyborg subjectivity. In writing on transindividuation, Stiegler (1998, 2012) demonstrates that humans have always been technical beings. Indeed, such a view of human evolution, sees technics as a productive force in human culture. People then, are technological insofar as technology comprises practices such as writing, weaving, and hair braiding (Roberts, 2012, pp. 16–17). The following chapter will detail the methodological decisions that were made considering the development of this theoretical framework since, as mentioned at the outset of this chapter, no methodology has been developed using this approach.

Chapter Three: Sensory ethnography: a framework for a forgotten epistemology

> The artisanship of practices is the apex of the work of the epistemologies of the South. It consists of designing and validating the practices of struggle and resistance carried out according to the premises of the epistemologies of the South. The same is true of the cognitive (scientific and nonscientific) work to be carried out in order to strengthen and expand such political work (de Sousa Santos, 2018, pp. 34–35)

> I propose that one of the goals of the sensory ethnographer is to seek to know places in other people's worlds that are similar to the places and ways of knowing of those others. Thus, I argue for a rethinking of the ethnographic process through a theory of place and space that can engage with both the phenomenology of place and the politics of space (Pink, 2009, p. 23)

As explained in the previous chapter, the theory of Black cyborg subjectivity is interdisciplinary in nature. Indeed, I draw from a range of theoretical and epistemological perspectives to argue that a theory of diasporic identity and belonging that takes cultural practices as its point of departure needs to be interdisciplinary. Interdisciplinarity is necessary because it reminds us that cultural practices are often multifaceted and cannot be fully understood through a single perspective. As such, it makes sense that the methodology reflects the interdisciplinary nature of this thesis. This chapter, then, continues to draw from a range of disciplines including social anthropology, psychoanalysis, and phenomenology to work towards a methodology that accounts for the role of the senses—specifically touch—in shaping our interactions with the world. Rather than treating ethnography as a means to produce case studies, I use the method to momentarily reflect on the role played by sensory experiences in communal experiences and what it means to be human. Similarly, In Doing Sensory Ethnography, Sarah Pink (2009) writes that ethnography is always a sensory experience since it already necessitates a keen awareness of the senses.

Ethnography "entails our multisensorial embodiment engagements with others (perhaps through participation in activities or exploring their understanding in part verbally) and with their social, material, discursive and sensory environments" (Pink, 2009, pp. 25–26). If ethnographic

work is already sensory work, one of the first questions to ask ourselves is: why introduce sensory ethnography as a methodology in its own right? Pink (2005, 2009) answers that question by explaining that sensory ethnography goes beyond acknowledging the sensory nature of ethnographic work by framing 'the sensory' as its own field of inquiry in order to determine how experiences and knowledge are shaped by our sensory practices. As such, sensory ethnography allows researchers to take stock of these experiences and those of their participants to allow for different perspectives and ways of knowing to arise. In many ways, sensory ethnography accounts for the nonverbal ways in which we express knowledge. This thesis approaches methodology by taking the claims made by Pink (2009) along with the work of Tim Ingold in The Life of Lines to develop a framework that also accounts for the theoretical foundation developed in the previous chapter.

This chapter is presented in two parts, the first provides a discussion on methodology and theory and argues that rather than being treated as separate, they are understood as two sides of the same coin. This reflection is then contextualized within this thesis. This initial section also differentiates between methodology which accounts for certain epistemological assumptions and methods which mobilize these assumptions into actionable articles and specific practices. This is followed by a discussion of the significant role played by sensory experiences in a study of transindividuation. As discussed earlier, diasporic transindividuation assumes that the human differentiates itself from animals and non-humans living organisms by its ability to interact with the world through touch. Tough Stiegler (2012) only provides a philosophical defence for transindividuation, reappropriating the framework as a way to understand Black cyborg subjectivity allows me to produce a set of methods that can be mobilized in future studies of transindividuation. The second part of this chapter provides an account of the mobilization of

this methodological framework into semi-structured interviews and autoethnography, the two data-collection methods used in this study. The chapter concludes with a discussion and reflection on the effectiveness of the methods employed for this thesis. This reflection and a discussion evaluate the usefulness of the method in future studies of sensory knowledge and collective memory.

A note on methodology and methods

Here, I offer a brief discussion of the relationship between methodology and method to distinguish between these terms which are, more often than not, used interchangeably. Like Hansen & Machin (2019, p. 1), I believe that theory and methods should not exist in isolation from each other but rather, they should be properly differentiated and defined in relation to a given theoretical framework. With these considerations in mind, I approach this project as an opportunity to develop strong theoretical and methodological justifications for future studies of collective memory, sensory experiences, and belonging in diasporic communities. Matters of methodology and method are, then, also differentiated by their relationship to certain epistemological concerns. Reflecting on the differences between methodology and method was essential in deciding on the methods that would be used for this research project and guaranteed I was continually aware of the epistemological decisions I made as well as their potential impact on my research. Indeed, this project rests, in part, on what I call the "work of recovery" which de Sousa Santos' (2018) describes in his writing on the epistemologies of the South. As mentioned in the previous chapter, the commitment to an epistemology of recovery is the result of the recognition of the dismissal of ways of knowing that sit outside and are often dismissed within academe. Said differently, recognizing the epistemologies of the South also requires that we investigate and take the idea that sensory practices produce knowledge seriously. This

commitment is primarily reflected in my desire for the practice of hair braiding to be taken seriously as means of meaning-making, knowledge production, and identity formation.

For the purposes of this study, I define methodology as a theoretical and epistemological framework used to think through research problems and inquiries. It follows that methodology often reflects the concerns of a theoretical framework and provides the theoretical justification for a set of practices employed by a researcher. Alternatively, method is defined as the application of the methodology in practical terms, a "technique for gathering evidence" (Harding, 1987, p. 2). Methods then, have to provide an account and a reflection of the steps taken by a researcher to move from a methodological framework into a set of actionable practices. The methodology/method relationship allows for these practices to be used and reflected on by future researchers who might wish to engage in similar studies. Harding (1987) warns of the dangers of this growing confusion surrounding the interchangeability of method and methodology. Therefore, she notes that on the one hand, "social scientists think about methodological issues primarily in terms of methods" and on the other, "it is also a problem that philosophers use such terms as 'scientific method' and 'the method of science' when they are really referring to issues of methodology and epistemology" (p.2). Said differently, understanding the differences between methodology and method is important since it frames how a study might be conducted as well as why certain methodological decisions are made.

Attending to these differences also raises certain epistemological issues about research and the purpose of scholarly research. Taking these questions into consideration is central to work that emerges from the epistemologies of the South. Here, Harding (1987) defines epistemology as "a theory of knowledge" which frames "who can be a 'knower'; what tests beliefs must pass in order to be legitimated as knowledge; what kind of things can be known, and

so forth" (p. 3). In a similar vein, de Sousa Santos (2018) argues that a central concern for the epistemologies of the South is what counts as knowledge and how those decisions were, and continue to be, predicated on colonial relations of power that have cast the global south as devoid of the potential for the rich intellectual tradition found in Europe. de Sousa Santos writes that:

> The artisanship of practices is the apex of the work of the epistemologies of the South. It consists of designing and validating the practices of struggle and resistance carried out according to the premises of the epistemologies of the South (de Sousa Santos, 2018, p. 34).

In other words, this exclusion means that the epistemologies of the South are interested in reframing practice as epistemological endeavours. These considerations are reflected in my attempts to plan a methodological framework that takes into account how the dismissal of ways of knowing and communicating that are excluded from conventional epistemological perspectives.

Methodology

Sensory ethnography as a guiding framework: personal/political/sensory

As mentioned above, methodology is defined as a framework that helps researchers think through research questions and problems. The methodology developed for this thesis is a direct reflection of the issues raised in the previous chapter where I offered a definition of the theory of Black cyborg subjectivity. Indeed, this project's methodology reflects my commitment to the epistemologies of the South (de Sousa Santos, 2018), Afrofuturism, and diasporic transindividuation. As such, the contours of this methodological framework began to emerge as I reflected on the theoretical and epistemological concerns of a theory of Black cyborg subjectivity

to define research questions that a study such as this one should be able to answer. The questions

that this methodological framework is concerned with are the following:

- Why are cultural practices, such as hair braiding visible in the African diaspora when colonization was, in part, predicated on the erasure and devaluation of African cultural practices?
- How can we understand hair braiding as an instance of Black technological innovation?
- How does thinking about hair braiding as a form of transindividuation redefine what is considered technological?

Answering these questions necessitates a theoretical approach that is concerned with different

epistemologies than the ones emerging from European traditions. As stated in the previous

chapter, returning to these epistemologies allows practices such as braiding, knitting, and

weaving to be considered beyond discussions of aesthetics and spiritual practice. The work of

anthropologist Tim Ingold (2015) provides a way to think about what a 'methodology of the

South' could look like. Indeed, his discussion of "thinking-through-knotting" (Ingold, 2015, pp.

18–23) provided much of the methodological foundation for this study. Lines, he notes are some

of the smallest units of measurement of an organism's impact on its environment. Lines are

drawn physically and metaphorically by making or erasing connections between people, places,

and objects since:

> most if not all life-forms can be most economically described as specific combinations of blob and line, and it could be the combination of their respective properties that allows them to flourish (Ingold, 2015, p. 4).

Ingold believes that lines, since they are everywhere, should be studied in every way possible.

The Life of Lines provides an account of such a study of lines and traces their ubiquitous appeal

to humans and non-humans. His focus on "thinking-through-knotting" or the generative nature of

interaction with lines is shared in Stiegler's assertion that humans, unlike animals, primarily

interact with the world through touch (Howells & Moore, 2013, p. 5; Stiegler, 1996, p. 72, 2012,

p. 135). This sensory experience, which resulted from the introduction of bipedalism in the human species allowed for grammatisation, which, in turn, lead to a development of practices such as orthographic writing. The nuances of writing and *thick description* is also reflected in my decision to use ethnography as my primary method of analysis. I share Clifford Geertz's (1973) understanding of ethnography and the attention paid to description as a way to demystify almost any practice. Ethnography, according to Geertz, is defined by its attempt to "read (in the sense of "construct a reading of") a manuscript—foreign, faced, full of ellipses, incoherent, suspicious emendations, and tendentious examples of shaped behaviour" (p. 9). Ethnography then, is premised on a researcher's ability to provide demystified and accurate accounts of cultural practices no matter how insignificant they seem. Geertz exemplifies ethnography's ability to perform that task by describing how a gesture such as a blink can be deconstructed to reveal a multitude of truths and beliefs in any given society. To further illustrate his argument, he defines ethnography as:

> a stratified hierarchy of meaningful structures in terms of which twitches, winks, fake-winks, parodies, rehearsals of parodies[10] are produced, perceived, and interpreted, and without which they would not (not even the zero-form twitches, which as a cultural category, are as much nonwinks as winks are nontwitches) in fact exist, no matter what anyone did or didn't do with his eyelids (Geertz, 1973, p. 7).

Twitches, winks, and other gestures become meaningful when they are observed by the ethnographer since they are tasked with describing the event in all its intricacies. Ethnography then, is well suited for a study of the mundane and of the practices that appear unextraordinary but that are meaningful in so far as they are part of everyday life. This is similar to how Ingold

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[10] Geertz uses winking as an example of a cultural practice that can be deconstructed and demystified through ethnography. The sequence he is referring to in this quote include three individuals: one person who blinks, another who replies to that blink with another facial twitch, and a third who parodies the first and rehearses the parody by blinking exaggeratingly in front of a mirror.

has positioned his study of lines. According to Ingold (2015), even the most insignificant line is the result of interaction between objects, here a line on a chalkboard and a ruler can both be meaningful entry points into understanding culture. As such, Ingold's study of lines allows him to comment on the role that practices have played in human history. He proposes that knotting is one of the important abilities of lines. Indeed, knotting:

> registers in a number of domains of thought and practice by which patterns of culture are sustained and bound into the interstices of human life. These include: the flows and growth of materials, including cordage and wood; bodily movement and gesture, as in weaving and sewing; sensory perception, especially touch and hearing, perhaps more than (but certainly not to the exclusion of) vision; and human relationships and the sentiment that infuses them (Ingold, 2015, p. 18).

As a method, sensory ethnography makes similar claims about how hair braiding functions as a sensory practice. Here, questions of embodiment and sensory persecutions are recast to consider how embodiment is part of a larger assemblage of practices that make up sensory perception. Subsequently, sensory ethnography attends to most of the epistemological concerns of Black cyborg subjectivity and diasporic transindividuation. As such, it reflects the sensory quality of cultural practices and the role that sensory perception plays in processes of transindividuation. Indeed, for Stiegler, the introduction of bipedalism—and the emergence of hand-feet coordination—offers the best differentiation between humans and animals (Howells & Moore, 2013, p. 37). Therefore, how we interact with the world is important since it separates us from our quadrupedal ancestors. Because it provides different ways to relate to and understand the world around us, bipedalism. Stiegler notes that although sensory perception does not begin and end with touch, the hands provide a way to relate to our surroundings in distinct ways. Indeed, this newfound ability to interact with the world through touch provided attending to a different realm of perception. As mentioned previously, there is no methodological framework that

accompanies Stiegler's theory of transindividuation and therefore my own work on diasporic transindividuation. This chapter provides a first attempt at developing a set of methods for studies that use theories of Black cyborg subjectivity and diasporic transindividuation to study collective membership and memory.

As such, sensory ethnography operates on a set of basic assumptions that reflect an increased level of attention paid to sensory perception. The first being that the human has always been technical and engages in thinking-through-knotting, and the second being that humans interact with the world with their hands, differentiating them from animals which they share vision and smell with. Here, these assumptions which are reflected in the theory of Black cyborg subjectivity are mobilized through a set of practices that researchers can use in their own sensory ethnographies. This chapter is, therefore, supported by the work of Sarah Pink (2009) and Tim Ingold (2015) who have written on how mundane practices still provide opportunities for considerations of sensory knowledge. Sensory ethnography acts as a guiding framework by taking into account knowing-as-making and making-as-knowing in order to create radical epistemologies where physical experiences are assessed as ways to produce and share knowledge. Similarly, arts and craft are reconfigured as epistemological practices.

Rediscovering the importance of the senses and of doing as ways to produce and internalize knowledge reflects a commitment to recovering forgotten epistemologies. The epistemology of recovery points to the abyssal lines drawn by colonialism and recovers the practices that have been by the wayside. Comparably, Pink (2005, 2007; 2015) who has written on the sensory nature of laundering notes that everyday sensory experiences help constitute identity. Her writing on laundry exposes how practices that are taken for granted often echo

assumptions help about gender and identity, namely how the responsibility, like for most

housekeeping, falls on women. She writes that:

> Laundry occupies a paradoxical status in the everyday, whereby it seemingly goes
> unnoticed while it is actually a fundamental part of the materiality of the home and of
> how the everyday is organized. Ironically, laundry has been used as a symbol of the
> 'ordinary,' yet is little discussed in the context of emergent understandings of what the
> ordinary means (Pink et al., 2015, p. 210).

Everyday experiences, because they are taken for granted, are often dismissed as mundane or

ordinary. This ignores the fact that at some point in time these practices were novel and

contentious. The mundane is particularly interesting for ethnographers since it offers up the

space to notice and trace how practices move from being new and innovative to becoming

ordinary and mundane. The ways we interact with our surroundings can help us understand

ourselves and our habits. Attending to the mundane and perhaps unexciting parts of our lives can

also help researchers view everyday activities in a different light and recover the extraordinary in

the mundane. As such, place is also important for ethnographers since as Casey (1996, p. 24)

writes "places gather things in their midst—where 'things' connote various animate and

inanimate entities. Places also gather experiences and histories, even languages and thoughts" (in

Pink, 2009, pp. 30–31). On the other hand, Ingold (2008, p. 1808) sees places as environments

that are produced by movement since "there would be no places were it not for the comings and

goings of human beings and other organisms to and from them, from and to places elsewhere (in

Pink, 2009, p. 32). Therefore, places are important parts of sensory experiences. Where we do

what we do is as important as why we do what we do and attending to these subtleties makes

sensory ethnography the best-suited approach for this project. Furthermore, studying hair

braiding through the lens of sensory ethnography allows a reconceptualization of 'mathematics-

as-making'. This framing of mathematics, rather than opposing the conceptualization of

mathematics as abstract, reminds us that mathematics has and continues to rely on physical and technological aide-mémoires[11] (Hansson, 2020, p. 118). Exploring the embodied nature of mathematics can help identify the epistemological assumptions that have defined Western mathematical thought and help us understand their relationship to the abyssal lines drawn by the epistemologies of the North (de Sousa Santos, 2018; Hansson, 2020). Indeed, Hansson (2020) notes that counting is the most fundamental mathematical process (p. 118). A mathematic that mobilizes the senses challenge the modernist divide between mathematics as pure thought (rationality) and embodiment to propose that counting and other mathematical practices can happen through the body. Specifically, weaving and knitting are examples of this embodied, rhythmic mathematic at play (Hansson, 2020, pp. 118–119).

Sensory ethnography as method

Moving from a theoretical understanding of sensory ethnography to an actual set of methods required some thinking about how I approach and understand knowledge production. Indeed, Pink's (2009) notes that the purpose of Doing Sensory Ethnography is not to outline a rigid method for sensory ethnography, but to allow researchers who are interested in studying cultural practices a way to move beyond abstract conceptualizations of the 'sensory' to more practical and concrete understandings of the role of the body and the senses in anthropological theory. On the one hand, this allows researchers to devise principles that can be used alone or added to existing methods or to create new ones. Indeed, much of Pink's (2009) writing on sensory ethnography frame the approach as relying on a set of methodological presuppositions rather than a set of methodological practices. Because she is aware of this conundrum, Pink

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[11] Memory aids

(2009) sets aside a portion of Doing Sensory Ethnography to explain how the principles of

sensory ethnography can be used to augment existing methods. Specifically, she dedicates an

entire chapter on how researchers might rethink the interview process to take into account the

implications of sensory ethnography. Pink (2009) describes how approaching the interview from

a sensory perspective allows researchers to consider interviewing as a space where both

researchers and participants can be active participants in the research:

> In interviews, researchers participate or collaborate with research participants in the
> process of defining and representing their (past, present or imagined) emplacement and
> their sensory embodied experiences. If we situate the interview within a process through
> which experiences are constituted, it might be understood as a point in this process where
> multisensorial experience is verbalised through culturally constructed sensory categories
> and in the context of the intersubjective interaction between ethnographer and research
> participant (Pink, 2009, p. 85).

I decided to look to sensory ethnography as a way to account for my own sensory experiences

and those who would participate in my study. As described in earlier chapters, Black hair and

how it is perceived still influences the incredibly complex relationships Black people have with

their hair. That cultural baggage can potentially make conversations about hair difficult for

participants. To account for this, I decided to perform an auto-ethnography prior to conducting

any interviews. I also knew that any attempt to answer the questions I posed to potential

participants would involve my own feelings about my hair and my identity as a Black woman.

As such, I knew that my perspective and assumptions would make their way into this project.

Rather than dismiss them and try to perform "objective research", I returned to de Sousa Santos'

(2018) work. Indeed, de Sousa Santos (2018) reminds us to reconsider "that which does not even

appear as knowledge" (p. 2) as intellectually relevant.

As a woman of Cameroonian descent who has lived in 'Western' countries including France and Canada, how I perceive myself and experience the world has always been impacted by attempts to mitigate my own relationship with my Blackness and anti-Blackness. Knowing how complicated my own feelings about my hair have been in the past, I wanted to create a space where my study participants felt free to explore the often-contradictory ways people think about who they are. I wanted to create a space where participants would not feel judged for expressing themselves and reflecting on their own experiences. With this in mind, I devised a two-part methodology to account for the assumptions under which sensory ethnography operates. The data collection techniques used for this thesis spanned four months and included auto-ethnography and semi-structured interviews. The rest of this chapter will detail the data collection process I went through as well as engage with some of the limitations of sensory ethnography in this thesis.

Auto-Ethnography & Semi-structured Interviews

Autoethnography, in the context of sensory ethnography, allows researchers to account for their own sensory perceptions and knowledge while critically examining those beliefs. Emerging in many disciplines, autoethnography is commonly used to refer to a range of autobiographical and emotive writing. These definitions reflect the range of labels that have and continue to be applied to the "autoethnographic orientation" (Chang, 2016, p. 47). While the multiple approaches to autoethnography can make it vague and difficult to define methodologically, Chang's (2016) definition offers some clarity on the scope and purpose of autoethnography. Chang (2016) defines autoethnography as:

a qualitative research method that utilizes ethnographic methods to bring cultural interpretation to the autobiographical data of researchers with the intent of understanding self and its connection to others (p. 56).

The popularity of autoethnography reflects the rising popularity of "native anthropology" and "ethnic autobiography", two ethnographic approaches where members of cultural groups study their own cultural environments (Chang, 2016, p. 47). As such, my choice to perform an autoethnography stemmed from a desire to create space for me to assess the relationship between hair grooming and race, important aspects of my identity, in light of critical scholarship. Specifically, I used autoethnography to reflect on my own hair journey and the transformation my hair has gone through. This decision required that I reinterpret what personally felt like banal experiences as a crucial moment for me as a Black woman and a researcher. Assessing the relationship I have had with my hair through the lens of diasporic transindividuation allowed me to think more critically about the meaningfulness of embracing my natural hair as part of a larger political awakening. Said differently, I reassessed how my 'hair journey' was paralleled by a growing awareness of how anti-Blackness operated in my own self-perception. Recording these journal entries also allowed me to come up with the research questions I would ask my participants. I approached autoethnography as a method that is "ethnographic in its methodological orientation, cultural in its interpretive orientation, and autobiographical in its content orientation" (Chang, 2016, p. 48). By moving away from 'objectivity' and placing myself at the center of this project, I acknowledged how my own interest in the project goes beyond theoretical musings to come up with research questions that allowed my interviewees to participate in my conception of diasporic transindividuation as a theoretical framework.

My auto-ethnography was carried out over a four-month period spanning October 2020 to January 2021 and consisted of recording two journal entries per month. These entries varied in

subject matter and length but were all related to my experiences, memories, and opinions about my hair and identity. Indeed, performing the autoethnography allowed for a level of reflexivity that is only apparent when attending to the sensory nature of human practices. As Pink (2009) explains, this commitment to reflexivity allows the ethnographer to use and assess their own sensory experiences through participation in the practice they are studying (p. 51). As this kind of reflexivity is only accessible by taking part in activities that center on sensory experiences, I decided that performing an auto-ethnography would foster that reflexivity. Performing the auto-ethnography created the space necessary to situate myself sensorially within the research project and allowed me to "come to know other people's lives in ways that are particularly intense" (Pink, 2009, p. 58). My use of evocative autoethnography was also influenced by Méndez (2013) who writes that "evocative autoethnography aims toward researchers' introspection on a particular topic to allow readers to make a connection with the researchers' feelings and experiences" (p. 281).

Although autoethnography is a method that can produce rich and meaningful data, it was important to also acknowledge the critiques and methodological pitfalls that have also plague this method. One of which is a lack of interaction between lived experiences and cultural theory. Hence, Coia & Taylor (2006) warn that:

> "It is not enough simply to tell the story or write a journal entry" (p. 19) for the cultural understanding of self to take place. Unless autoethnographers stay focused on their research purpose, they can be tempted to settle for elaborate narratives with underdeveloped cultural analysis and interpretation (in Chang, 2016, p. 55).

Indeed, as Chang (2016) reminds us, autoethnography's origin in anthropology denotes an understanding of culture as a public/private phenomenon. Here, autoethnography acts as a useful bridge between personal and communal cultural experiences. Thus, using autoethnography as a

primary data collection method would not be sufficient for this project. As such, I decided that I would supplement this data collection with interviews. The use of interviews as supplementary data collection is also suggested by Chang (2016), Pink (2009), Méndez (2013), and Ellis & Bochner (2002).

Participants were recruited using both social media and snowball sampling to target a specific subset of the Black diaspora. I used social media recruitment along with snowball sampling since it is a sampling method that allows researchers to be referred to other participants by those who have already participated in the data collection (Chang, 2016; Patton, 1990; Pink, 2009). This sampling method resulted in 4 interviewees being recruited through my postings on social media and one who was referred to me by a previous participant. The decision to perform semi-structured interviews reflected my desire to create a space where the participants and I were involved in understanding the sensory nature of hair braiding together. Performing the autoethnography prior to interviews helped me reassess the memories and feelings that resurfaced during my auto-ethnography. This level of reflexivity also allowed me to foster open and honest communication between the participants and myself. As such, the interviews opened with an open-ended question meant to situate the interviewee sensorially. These questions, which are also known as "grand-tour" questions allowed participants to start thinking about the sensory nature of their experiences by describing their earliest memories of getting their hair braided (Chang, 2016). This first look at the sensory memories of my participants allowed me to formulate follow-up questions that were specific to their experiences and, in most cases, to share my own memories with participants. This also resulted in a set of guiding questions and topics that I used during my interviews. As Pink (2009) notes, interviews themselves are performative and sensory experiences. Being aware of my own albeit complicated feelings and beliefs about

Black hair created a shared sense of openness and vulnerability between myself and those who participated in my study.

As mentioned above, participants were recruited using social media platforms (Instagram, Facebook, and Twitter) along with snowball sampling. Specifically, a call for participants was posted on my personal social media accounts along with an email address where I could provide more information to interested parties. While most of my participants were recruited using this method, snowball sampling was also useful as participants referred me to friends and acquaintances who might be interested in my project. This form of sampling was particularly useful considering the restrictions to in-person research enacted because of the COVID-19 pandemic. In total, 5 interviews were conducted over the month of January 2021. The interviews were conducted and recorded using Zoom, a telecommunication platform that allowed me to automatically generate interview transcripts. Although not all participants cared if their real names were used, all were asked to provide pseudonyms they would not mind being identified with. Once the autoethnography and interviews were completed, I transcribed the journal entries as well as the interview transcripts in a Word document, to make them readable by my chosen analysis software. The process also allowed me to correct any mistakes or spelling errors made by Zoom's transcription software and to add any missing text to the interview transcripts. Once the transcription was completed, the journal entries and interview transcripts were uploaded to NVivo, a qualitative analysis software that allows for thematic analysis, along with the video recordings of the interviews. The files that were uploaded to NVivo were then coded using a coding scheme devised while reviewing the notes I took during each interview. This coding yielded three overarching categories: memory, identity and belonging, and technics which were present across all interview transcripts and ethnographic journal entries. Thematic

coding allowed me to reassemble and organize the data in ways that made identifying how responses related to the research questions that this thesis seeks to answer fairly managable. The results, as well as theoretical implications of this analysis, will be explored in the following chapters.

Summary

This chapter has provided an overview of the methodological framework mobilized in this study. Specifically, I have positioned sensory ethnography as a theoretical and methodological framework by attending to the ways in which sensory experiences are bound in "people's lived, situated, practices" (Rapley, 2004, p. 29 as cited in Pink, 2009, p. 84). This, in turn, has provided an epistemological foundation for this research project. The mobilization of sensory ethnography also reflects a commitment to understanding 1) thinking-through-knotting and 2) interacting with the world using our hands as processes that are necessary for diasporic transindividuation to occur. Given these epistemological concerns, autoethnography and semi-structured interviews were employed to capture my sensory experiences as well as that of my participants'. Autoethnography's focus on the self reflects the move towards biography and life experiences in cultural anthropology. This movement, although it is not without its critics, has created space for a kind of emotive anthropology. Along with the collecting of these ethnographic accounts, I have used semi-structured interviews to engage with peers and their own sensory memories of hair braiding. Interviews are also a useful tool for autoethnography as they allow researchers to fill gaps in information, stimulate the researcher's memory, validate personal data and personal accounts, and gain other perspectives on cultural practices (Chang, 2016, p. 106). Similarly, interviews provide a space for researchers and participants to understand their sensory memories and experiences together. As Pink (2009) notes, the ethnographic interview can also be conceptualized as a sensory experience. Understanding the interview as such allows researchers to pay attention to the ways in which the body is involved in knowledge-production and communication (Pink, 2005, 2009, p. 86). Finally, I have provided an overview of the methodological approach used for this master's project as well as the thematic elements that emerged from the interviews and ethnographic journal entries. As mentioned

above, the following chapters will engage with the theoretical implications of the analysis of the

data collected through these methods.

Chapter Four: Every hairstyle I do in my hair is a Black hairstyle: memory, identity, belonging, and technique

I'm picky, I'm the worst customer you can ever get for a braider because I hate cold hands, and she would always have cold hands. And I don't care if it's summer and it's like 50 degrees outside, I cannot have someone with cold hands touch my head.
Kristie, 22

My earliest experience in my hair getting braided is when I was younger, every week on Sunday. My mom would braid my hair and she'd always do like little single braids with just my natural hair and oil up my scalp put on, like, hair oil. And like, other hair foods into my hair and it really helped me, I don't know, have like a style for the week. It was nice because we were bonding. Um, so I always used to like braids and I always used to do fun styles and stuff like that, when I was younger. And as I've grown older it's been like better, that experience and getting my hair braided has been more enhanced, and I value like the past getting my hair braided by my family members or whatever, instead of just finding a hairstylist I don't really know as well.
Jade, 22

My dad will actually be the one who remembers the first time I got my hair braided because I remember him telling me a story of when I got my hair braided and I went to him. And I was like, see my hair? See my hair? But like the only vivid memory I have about hair braiding was like when I was nine, and this is before we put chemical relaxer in my hair.
Ellie, 19

This chapter outlines the main findings from the data collection conducted, as part of this thesis. Rather than speaking to every thematic element that emerged during the interviews and the autoethnography, I have identified two sensory categories and one somatic category related to how Black Canadian women use their hair to negotiate their Black-Canadian identity and their belonging in the Black diaspora. The interconnectedness of identity, belonging, and diaspora is central to contextualizing the interviews conducted as part of this project. Here, belonging is used to identify a process of negotiation between multiple, and often contradictory identities. This project engages with belonging by exploring experiences of this tension between identities for members of the African diaspora in North America, specifically Canada, and argues that hair braiding can be used to mediate and negotiate these identities in a neo-colonial context. Given

the impact of colonialism on migration patterns Thomas (2015) and Velickovic (2012) argue that

processes of belonging and (un)belonging occur through the idealization and/or rejection of the

natal country, while the host country presents constant reminders of difference. Belonging and

(un) belonging then, are processes of self-recognition within these complicated/interconnected

identities. Similarly, Velickovic (2012) uses the term (un)belonging to:

> mark a conceptual space between ownership and loss. As a dialectic process, it indicates
> the protagonists' negotiation of the ways in which they are positioned by the workings of
> hegemonic belonging (a construction of "inauthentic" belonging based on "visible"
> markers of difference), and their own sense of belonging (p. 67).

Velickovic's usage of the prefix "un" also signifies a "productive tension" between these

different identities and how that state of in-betweenness has the potential to be turned in 'creative

counter-strategies" of self-definition (2012, p. 67). Furthermore, she notes that (un)belonging is

marked by not being provided with the "apparently available comforts of belonging" (p. 68)

from their birth or their country of citizenship. Diasporic (un)belonging operates on a recognition

of a distance between both the country of birth and the country of citizenship. As such, she uses

(un)belonging to signify:

> the protagonists' negotiation of the ways in which they are positioned by the workings of
> hegemonic belonging (a construction of "inauthentic" belonging based on "visible"
> markers of difference), and their own sense of belonging. At the same time, the prefix
> "un" in (un)belonging implies a productive tension, acquiring a performative and
> imaginative potential, and allowing the protagonists to transform painful experiences of
> unbelonging into creative counter-strategies (Velickovic, 2012, p. 67).

Framing issues of belonging and identity from this perspective allows this project a certain

hyperfocus, in terms of scope. The decision to interview African-born, Black Canadians grew out

of a desire to investigate how identity formation and negotiation impact this subset of the African

diaspora. Unlike their Canada-born peers, or even their parents who brought them to Canada, the

women I interviewed situated themselves within this (un)belonging. Indeed, these 1.5 generation

Canadians experience belonging in the diaspora differently than their parents who they

immigrated with (first-generation) and younger (second-generation) Black Canadians who were

born in Canada[12]. As illustrated in the previous chapter, data collection of sensory experiences

necessitates a different approach to how the body is positioned in ethnographic research (Pink,

2009). While the intellectual movement toward the 'somatic turn' provided the building blocks

for my data collection, this project goes beyond framing sensory practices through concerns of

embodiment. Specifically, I am interested in what Chang (2016) calls 'critical somatic

perspectives' (p. 49). Here, sensory experiences are interpreted by considering:

> the physical embodiment of a person (body shape, size and physique); body skill sets and
> situational responses (historically developed); and social skills and abilities of the body
> by virtue of being embedded in a socio-cultural situation (Chang, 2016, p. 49).

Interpreting the body through this three-dimensional perspective allowed me to identify a

number of sensory and somatic categories related to how Black Canadian women interact with

their surroundings through hair care and grooming practices. While the somatic and sensory have

similar connotations, they are used distinctly in this project. Here, somatic refers to "the lived

body" and is central to any human inquiry because, through our bodies, we move, experience and

engage with the surrounding world (Chang, 2016, p. 46, as cited in Shusterman, 2012).

Alternatively, sensory refers to a field of knowledge that involves and/or relies on the senses,

similar to how Chang (2016) considers embodiment. The data collected through interviews and

ethnographic journal entries resulted in two sensory categories: memory, identity (and

belonging), and one somatic category: technique. These themes highlight the real-life

implications of thinking about hair braiding as a tool for Black cyborgs and diasporic

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[12] The term 1.5 generation is used to describe those who have immigrated to another country as children or
adolescents and have parents who are first-generation immigrants. Their younger siblings, who are born in the host
country, are second-generation immigrants (Ellis & Goodwin-White, 2006; Kim et al., 2003).

subjectivities to emerge. As such, this chapter goes beyond simply summarizing the sensory categories observed in the interview and auto-ethnography data and explores their interconnectedness. The significance of these categories will be explored insofar as they help explain how diasporic Black people act themselves into being. Said differently, this chapter explores how hair braiding can create moments of encounter where hair becomes a medium that help continental African women navigate belonging in the diaspora.

As detailed in the last chapter, I decided to use interviews and auto-ethnography as my primary methods. As such, I interviewed 5 self-identified Black Canadian women between the ages of 18 and 25. The decision to interview women in this age bracket was, in part, because of this generation's attitude towards natural hair. In fact, histories of the Natural Hair Movement (NHM) highlight the role of social media platforms, such as YouTube in the revival of the movement (C. Jackson, 2017; Neil & Mbilishaka, 2019). Specifically, Jackson (2017) argues that the second wave of the Natural Hair Movement is closely associated with the rise of community building on social media platforms (pp. 46-47). In other words, Black people born in the mid-to-late nineties, on the one hand, learned about the Civil Rights Movement as a 'movement from the past' having been too young to have witnessed it. On the other, they are old enough to have experienced animosity towards their natural hair and to have experienced what Jackson (2017) calls the second wave of the Natural Hair Movement. As the findings illustrate, the specificity of this experience has had important impacts on this generation's identity formation. Said differently, the data collected through these interviews has shown that the experiences of Black youth between the ages of 18-25 have made them identify hair as a fulcrum of Black diasporic identity. I believe that while this attachment to hair exists among first- and second-generation African immigrants, it is expressed and experienced differently by this generation than their

older or younger peers. Other important demographic data includes participants' countries of origin. Indeed, the women interviewed as part of this project, had all immigrated to Canada at an early age. Despite having lived in Canada for a number of years, each interviewee emphasized some level of attachment to their country of origin. Those countries included Ethiopia and Somalia, Congo, Haiti, and Nigeria.

Although hair plays a significant role in identity formation for Black people across the diaspora (Berry, 2008; Chapman, 2007; Dash, 2006; Robinson, 2011), the decision to interview continental African descendants allowed me to investigate how African women in the diaspora relate to their hair. Focusing on this demographic opens up the conversation on hair and identity to topics other than activism, which has largely already been explored. Participants had either lived in those countries for several years prior to moving to Canada or had been travelling there at least once a year. The decision to interview Black Canadians who were not born in Canada stemmed from the observations made during my autoethnography. The data collected illustrates that both participants and I use certain Afrocentric hairstyles to relate and foster belonging to our countries of origin. Each interview began with participants narrating their earliest memory of getting their hair braided. I, similarly, began my autoethnography by describing my earliest memory of getting my hair braided. As such, memory was the first recognizable sensory category to emerge during my analysis. Because memory is multifaceted and manifests itself in many ways, mentions of memory were coded in separate categories to include cultural memory and sensory memory. For example, the code cultural memory reflected how, for Black Canadian women, cultural knowledge is often accessed and interpreted through hair and the cultural knowledge that is inscribed in it. Indeed, Sturkin (1997) defines cultural memory as "memory that is shared outside the avenues of formal historical discourses yet entangled with cultural

products and imbued with cultural meaning" (in Olick & Robbins, 1998, p. 111). Assmann

(1992) further defines cultural memory as the "transmission of meanings from the past, that is

explicit historical reference and consciousness" (in Olick & Robbins, 1998, p. 112). Interviews

revealed that cultural rites, such as hair braiding were especially important in maintaining racial

identity when living in the diaspora. Deciding to focus on the sensory nature of practices also

required an understanding of the role of personal memories in sensory experiences. To that end,

Pink (2009) writes that imagination and memory are necessary for situating sensory practices (p.

39). Sensory imagination is the bridge between practice, memory, and history. Therefore,

individual sensory experiences are given meaning through collective memory. In other words,

sensory memories are significant insofar as they are interpreted through the lens of collective

memory, norms, and mores. Sensory memories were coded as memory and included any

memory I or the participants had about getting our hair braided. As the quotes at the beginning of

this chapter illustrate, participants had quite vivid sensory memories and described their

experiences almost as if they were re-living them. The memories described by my participants

and me emphasized how family is often embedded in memories of cultural practices such as hair

braiding. For instance, the presence of most participants' parents in their memories of getting

their hair braided accounted for most of the instances where memory was coded for.

The second sensory category to be identified in the interview and autoethnographic data

was identity. This thesis takes up Stuart Hall's view that identity is not a fixed category (Hall,

1997; Hall & Du Gay, 1996). Rather identity is best understood as a negotiation of history, place,

space, and belonging. In providing this definition, Hall (1997) asks that we think about identity

as an "imaginative rediscovery" (p. 224). For diasporic subjects, such a definition of identity

highlights the tension between the desire to return to "lost origins" and to navigate living in the host country (Hall, 1997, p. 236). Hall's conception of identity requires that we:

> accepts that identities are never unified and, in late modern times, increasingly fragmented and fractured; never singular but multiply constructed across different, often intersecting and antagonistic, discourses, practices and positions (Hall & Du Gay, 1996, p. 4).

Because identity is a multifaceted concept, differentiating between different aspects of identity similarly necessitated multiple codes. These codes included white gaze, Black gaze, anti-Blackness, embodiment, Blackness, and cultural appropriation. Each of these codes represented a way in which questions of identity were brought up in interviews and ethnographic data. Particularly, codes such as identity, anti-Blackness, white gaze, and Black gaze were used to identify instances where myself or participants were explicitly stating that hair braiding fostered a sense of belonging in the African diaspora in the Americas, whether positive or negative. Indeed, through the white gaze code, I was able to pinpoint how negative reactions to hairstyles were often used to make Black women uncomfortable with their hair and their identity.

Finally, technique was engaged with as a somatic category since participants did not self-identify as hair braiders, although most of them had previously braided their own or someone else's hair. As mentioned above, a somatic perspective considers the 'lived body' and how this body engages with its surroundings (Chang, 2016, p. 46). As such, participants' experiences of getting their hair braided also played a role in constituting their diasporic identities. The experience of getting their hair braided in Canadian salons versus salons in Africa was important in their identity as Black-Canadian women. As such, participants drew on the different experiences to explain how getting their hair braided in a Canadian salon both resembled experiences at African salons while constituting its own specific experience. Indeed, scholars who have written on the Black beauty salon and barbershop culture highlight its importance for

racial identity (Lukate, 2021; Steele, 2016). Particularly, participants saw pain as a distinguishing

and unifying feature of the 'Black hair experience'.

Kristie

> Usually, because I don't care, I'll just be like, if you're wearing braids, do you know the meanings behind it? Because, you know, I don't know, if you're aware of this but in Africa hairstyles would define your status, your family, your clan. It was legit, a way of identifying each other. You know what I mean? Like, certain ethnic groups had certain cornrows certain "tribes" had certain braids and stuff like that.
> *Kristie, 22*

Participants who discussed the relationship between cultural memory and hair noted that the

practice of hair braiding, in Africa and the Black diaspora, goes beyond creating aesthetically

pleasing hairstyles. Kristie, a Congolese woman who has lived in the United States and Canada,

spoke about how braids were used by African ethnic groups to socially identity and classify

people. She also described how specific braided styles were used specifically by Nigerian ethnic

groups such as Fulani braids, a style worn by the Fulani people of West Africa. She commented

that the popularity of these styles in the diaspora is, to her, an indication of the cultural linkages

between Africa and its diasporas. Furthermore, she noted that her own growing awareness of

Blackness and of Black history has been acquired through learning about hair, specifically about

the connections and relationships between African braiding styles and North American styles.

Her comment focused on how she became aware of the historical significance of cornrows in

African American history and slavery through:

> a process of reading like histories of Black hairstyles, like how cornrows are called cornrows because in like, especially in American slavery, slaves were apparently, this is what I've read and heard, that they will take morsels of like grains and rice and braid into their hair because the slave masters were not feeding them that much. So it's like it has such a deep root that like it's called this because black people suffered in a period of time and they had to hide food in their hair, which is a skill on its own. Because our hair does have that texture, where you can. It's so malleable. It can come in different shapes and forms, and you can do so many things to it that you can even hide like dried food in it.

Other participants also noted the connection between styles and hair braiding techniques used by Africans and diasporic Black people. In each interview, that resemblance was associated with the shared experiences of Black people all over the world. Participants agreed that the ubiquitous nature of the Black experience was a fruitful space in which to foster cultural and racial awareness. The fact that hairstyles such as cornrows, box braids, and twists are visible throughout the diaspora make them a symbol of the interconnectedness of the diaspora. Said differently, participants identified specific braiding styles as a symbol of commonality within the diaspora. My autoethnography also highlighted how the relationship between hair braiding and cultural memory has been significant in my own life. Specifically, in one journal entry from early in the autoethnographic process, I note that getting my hair braided was often accompanied by visits from family members which also served as a way for me to interact with Cameroonian culture outside of travel, holidays, weddings, or other important social events where that would happen. I describe quite vividly the "African ambiance" that I feel surrounded while getting my hair braided. In fact, that perceived ambiance was:

> reinforced by the music of movies that would play in the background. What served as a distraction would leave an impressionable mark on my memories. In no small part, getting my hair braided and/or watching other people get their hair braided was also where I was introduced to Afrobeats, Cameroonian music and African movies. This is where I was introduced to some of my favourite artists. Getting my hair braided would also be followed by lots of food—which is my favourite part of any family activity. I would get my hair braided, eat some good food, and listen to some good music. Besides Christmas and/or weddings, this was one of the few times I would feel 'especially African'.

These examples show the cultural and symbolic significance that hair braiding carries in the Black diaspora. It is clear from my interviews and autoethnography that hair braiding is often a lens through which Black people learn about their history. As mentioned throughout participants' interview transcripts, the history of Black hair was often the first thing they turned to when

deciding to learn more about Black history and the Black diaspora. In my case, this relationship has been made explicit by my own experiences of getting my hair braided and the cultural mementos I was introduced to as part of that practice.

Kristie went on to describe how disparaging comments about her hair by her white peers made her feel so self-conscious that she refused to go anywhere without having her natural hair covered with weaves or other protective styles including box braids. She mentioned that the discomfort she felt with her cultural identity stemmed from one event where she was told that she looks more attractive with long hair. She mentions that although it did not initially hurt her feelings, she did not know how much that statement had actually affected her. The impact of that statement was so deep that after that she did not wear her natural hair (whether cornrowed or not) outside the house for 7 years. She mentioned that these comments were especially upsetting given the recent uptick in appropriation of Black hairstyles by white celebrities. Kristie went as far as describing cultural appropriation as a form of recolonization. In her opinion, that white celebrities can wear Black hairstyles and be praised for being "fashion-forward" while the Black people who originated those styles were ridiculed or barred employment was especially upsetting. She felt that this decontextualization, when it happens, centers on white people rather than the hairstyles that are appropriated. For example, the cultural and historical significance of cornrows made instances of appropriation especially upsetting. Likewise, Simi, a Nigerian woman who immigrated to Canada at six years old, mentioned that cultural appropriation is upsetting because Black hairstyles play a very strong role in fostering her identity. Furthermore, appropriation feels disrespectful because the styles that are appropriated are styles participants were unable or unwilling to wear because of negative perceptions of Black hair.

Finally, Kristie described the way pain is a unifying feature of the Black hair braiding experience. She mentioned that although she knew tension on her scalp would be unavoidable, that pain was necessary for the hairstyle to look its best. She mentioned that although getting her hair braided is often painful, the pain is in part, alleviated by the personal connection she can create with her braider. For her that difference comes from the personal bond that is created between the braider and their client along with the level of pain Black women can endure to get a specific hairstyle. The perceived shared experience of trying to alleviate the tension on hair that had recently been braided, experiencing the added weight of hair extensions, or trying to find a comfortable way to sleep with freshly braided hair was seen as a rite of passage shared by Black women and girls across the diaspora.

Ellie

> We would go to like a family friend's house because typically almost all the women knew how to braid hair. Like, every other woman knew how to braid hair back in Nigeria. They start combing like vigorously like it's, you know, the thing where it's like they're pulling so tight and everything, then they start sectioning and just like braiding. Just simple cornrows but if they wanted to do some like fancy designs, they would do something like the wavy designs in between braids. My last recollection of that, I was maybe three years old. And it's something that I've always been doing like it's a way to, like, you know, maintain my hairstyle keep my hair from getting damaged and also a way for it to grow.
> *Ellie, 19*

Ellie, who has lived in Ottawa most of her life but is originally from Nigeria described how her memories of getting her hair braided are inextricable from thinking about her extended family who lives in Nigeria. For Ellie, family, belonging, and identity are all things that surface while she sits down to get her hair braided. This, in part, explained her discomfort with cultural appropriation which was similar to the concerns brought up by Kristie. The Kardashian-Jenners, specifically Kim, Khloe, and Kylie were notable offenders for Ellie. The Kardashian-Jenners are,

of course, known for building a brand that relies on racial ambiguity and proximity to Blackness (Arterbery, 2016; Dent, 2017). Their commitment to not only emulate but profit from this proximity to Blackness has not led to more protections for the women whose hairstyles they emulate. She also felt that cultural appropriation moved conversations away from the origins and significance of the styles that were appropriated. Specifically, she described how styles such as cornrows are not only aesthetically pleasing but play an important role in maintaining healthy hair. Conversely, Ellie also believed that hair braiding could be used to reclaim and reassert Black identity. She explained how learning about the historical and cultural significance of different Black hairstyles also strengthens her sense of belonging in the diaspora. Indeed, she believed that "recognizing your hair" is the first step in developing a positive relationship with Black hair. This recognition is necessary because it allows you to know that:

> you're this black person, whether you're an African American or an American, or from the Caribbean wherever you are, you kind of get that sense of identity by taking that first step of like recognizing your hair, essentially. So, once you recognize this is something that makes you, you. Whether it's bald hair, short hair, a mini afro, a big afro, box braids, cornrows, whatever it is, like, it adds to that feeling of identity, like it goes back to that feeling of identity again.

Like all participants, Ellie explained that her discomfort with her natural hair and braided styles that did not conform to Eurocentric beauty standards was the result of negative comments about her hair from her white peers. Growing up in the suburbs, often as the only Black child, affected her self-perception and her racial identity in ways that she was now beginning to unpack. In fact, Ellie went on to describe how recognizing that her hair, specifically its texture was a feature of her racial identity was central in her embracing her identity. Her decision to go natural and wear more Afrocentric styles such as afros and cornrows allowed her to rekindle that connection with

her Nigerian identity and divest from the negative connotations she had associated with Black

hair.

Simi

> Places that have like large black population, there is always a history and there's always
> something attached to braiding styles. That's due to colonization, maybe loss and we are,
> we are trying to reclaim that again because for so long it's been seen as unkempt and
> unnatural but like it has so much history behind it and so much.
> Simi, 19

Simi, who, like Ellie, had lived in Ottawa for most of her life, was originally from Nigeria.

Learning about Nigerian culture, Black history, and "what it means to be Black" happened

through hair. She mentioned that although viewing her hair through an Afrocentric gaze allowed

her to learn to appreciate its history and its connection to her country of origin, her awareness of

her hair texture began when she started relaxing it, at a young age. She described how she

initially started relaxing her hair because of the negative reactions people had to her natural hair.

Although she knew that no amount of chemical treatment would completely alter the nature of

her hair, she continued to relax her hair most of her childhood. My autoethnographic journal

entries yielded similar results in that attitudes and comments about my hair and the lack of

representation resulted in me chemically relaxing my hair. In fact, I began to see my hair as the

one phenotypical feature I could change in an effort to look like my peers. In a journal entry

from October 2020, I write that:

> Since I could not alter those other features without some level of drastic/invasive
> intervention, my hair became the canvas/outlet for that frustration. More than anything, I
> wanted long, flowy, straight hair that wasn't heavy or didn't make any noise because it
> was adorned with beads. As time went by, I finally asked (more like begged) my mother
> to relax my hair and from the ages of 12 to 21, I had my hair chemically straightened.

What I did not realize at the time was that no matter how long I sat with those chemicals, in my hair, I would only approximate whiteness and my hair would never be as smooth and flowy as I desired. This feeling was reciprocated by Simi who laughed as she remembered the effort it would take to endure chemical relaxers. She mentions that, like me, even though she would chemically straighten her hair, the result would always be slightly disappointing and would not last long. She described how her hair would:

> still have like that puff in the back because, I can't lie, I never liked it [the chemical relaxer] sitting in my hair for too long. So, I would always wash it off. And still, I would have people come and touch my hair.

While these experiences were intrusive, they helped Simi decide that she would embrace her natural hair and stop chemically straightening it and made her want to learn about the historical significance of cornrows both in Africa and in African American history, as well as through slavery. She stated that this connection between braiding styles and techniques within the Black diaspora allowed her to relate to other non-African Black people. For Simi, that hairstyles such as cornrows, box braids, and twists are visible throughout the African diaspora make them a symbol of the interconnectedness of Black people around the world. Said differently, participants identified specific braiding styles as a symbol of commonality among women of the African diaspora. I shared similar sentiments in my autoethnographic journal entries. Specifically, in one journal entry from early in the autoethnographic process, I note that getting my hair braided was often accompanied by visits from family members which also served as a way for me to interact with Cameroonian culture outside of travel, holidays, weddings, or other important social events where that would happen. I describe quite vividly the "African ambiance" that I feel surrounded when getting my hair braided. In fact, that perceived ambiance was:

reinforced by the music of movies that would play in the background. What served as a distraction would leave an impressionable mark on my memories. In no small part, getting my hair braided and/or watching other people get their hair braided was also where I was introduced to Afrobeats, Cameroonian music and African movies. This is where I was introduced to some of my favourite artists. Getting my hair braided would also be followed by lots of food—which is my favourite part of any family activity. I would get my hair braided, eat some good food, and listen to some good music. Besides Christmas and/or weddings, this was one of the few times I would feel 'especially African'.

These examples show the cultural and symbolic significance that hair braiding carries in the African diaspora in the Americas. It is clear from my interviews and autoethnography that hair braiding is often a lens through which Black people, even continental African immigrants, learn about their history. As mentioned by my interview participants, the history of Black hair is often the first thing they turned to when deciding to learn more about who they are as Africans and where they come from. In my case, this relationship has been made explicit by my own experiences of getting my hair braided and the cultural mementos I was introduced to as part of that practice. Now, Simi's hair allows her to connect with her culture because she can recreate styles that are popular in Nigeria.

Finally, like Kristie, she also saw pain as a unifying feature of the hair braiding experience, across the diaspora. Again, like Kristie, she explained how Black women have all experienced braids that are so tight they lead to headaches or disturbed sleep patterns. Specifically, she remembered a time where her hair was braided so tightly, she:

had to shift the skin forward on my head just to relieve the headache that's building up. So, one thing I look forward like look, too, is if their hand is not too tight, but the braid is also able to last for a long period of time.

As a sort of rite of passage, this, at times, painful experiences could be used to relate to other Black women she met or those who were already in her friend group.

Jasmine

> It would be Sunday night for like four hours blocked like I know it was hair day. And like it was always like, yeah, it was always braided because my mom didn't like to send me to school with, like, just ponytail or something.
> *Jasmine, 24*

Jasmine, who is of Haitian descent, described how having her mother wash and condition her hair became a weekly ritual that she looked forward to. Like other participants, she had relaxed her hair for a number of years and was recently learning how to care for her hair. She went on to explain how, unlike the rest of the participants, using relaxers on her hair was more a matter of convenience, especially with how long braiding hair can take. She explained that although she was quite proud of her natural hair, she often felt that she did not have enough time to take care of her hair. She noted that we do not live in a society that allows for the time-consuming nature of getting natural hair braided. As a communal and familial activity, hair braiding often involves more than going to a salon and sitting down at a station. Black hair salons often exists in between the public and private spheres. Indeed, those salons are often in homes or bedrooms which means that children, other clients, friends, and relatives can come and go from the salon as someone is getting their hair done. This often slows down the hours-long process of braiding hair. For Perrye, relaxing her hair meant that she was not getting it braided but once she stopped the relaxers, she automatically started braiding her hair again.

She went on to describe how having cancer led her to fully embracing her hair as a feature of her identity. She saw the illness and the fear of losing her hair was a:

> a wakeup call for me to be like you need to appreciate what you have and, to have a good routine about them because I, my life, I could've lost it and my hair.

Coupled with cancer, Jasmine saw her decision to embrace her natural hair and start braiding it again as a way to become more aware of her Blackness. She described how she experienced a

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'hair moment', at the beginning of her natural hair journey which like other participants involved learning and appreciating the cultural significance behind her hair and the hairstyles she would experiment with. She also believed that embracing her natural hair was part of a conscious move away from the white gaze. As such, she described embracing her natural hair as "moving away from white eyes" and realizing, like Simi that even if she kept relaxing her hair it would never look like white people's hair.

Jade

> Oh, well right now, my grandmother is somebody that relies on people to give her food and help her with showers and stuff like that. Everything that she does, she needs help from people, but something that she really enjoys and likes I guess just culturally is just to have her hair braided.
> *Jade, 22*

Jade, who did not consider herself a hair braider but who often braids her grandmother's hair, described how taking care of her grandmother by braiding her hair was a way for her to reciprocate on the care she had received from her as a child. By remembering and describing the sensory memories she shared with her grandmother, Jade, explained how she adopted that position and described how the sensory experience of getting her own hair braided might differ from that of a hair braider. In fact, most of the memories of getting her own hair braided focused on remembering her mother, the pain she experienced being someone who is tender-headed [13] and the steps taken to alleviate that tenderness. Additionally, she mentions how getting her hair braided was part of a larger self-care ritual that was integrated into her week. Indeed, she explained how that weekly ritual was something that happened:

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[13] Tender headed is a term used in the Natural Hair Community to describe an individual whose scalp is very sensitive or who pretends like it is. Tender headedness can be exacerbated the dryness of a person's scalp, how often they detangled their hair or the pressure that applied to the scalp while braiding hair.

No matter what, like, that was something that I always had that I could look forward to and on Sundays. I would take like a nice bath, like it was kind of a self-care kind of day, and I didn't realize it when I was younger. And so she braided my hair and I looked cute, the next day. And so, I would have something to look forward to when you end the weekend, and you start the next week.

Despite some of the pain she might experience, this association between getting her hair braided and taking care of herself informed why it was so important for her to be able to give that to her grandmother. Beyond her learning about the cultural and historical significance of the hairstyles she wore, the memories of getting her hair braided, as a child, and braiding her grandmother's hair, as an adult were what made her want to learn how to braid hair. Jade, who up to that point had described only positive associations between her hair and her identity, shared that the negative reactions to her natural hair, braided or not negatively affected her sense of self. In the example she described, she mentioned that her perception of her hair started to change as she began high school. She described how she felt like people complimented her more when her hair was straightened because:

It was also longer. I felt like, I don't know, I fit in more with the, the group of people that I was around. And so, when I saw the, I guess positivity for me not wearing my hair natural I kind of liked that more. And so, I was like craving that kind of validation from people. And so, once I started high school, I remember like my hair was straight like all the time.

Even when she did braid her hair, she did so in a manner that, according to her made her hair look neat. Likewise, another participant, Simi, mentioned that she initially started relaxing her hair because of negative reactions her white peers had to her natural hair. Although she knew that no amount of chemical treatment would completely alter the nature of her hair, she continued to relax her hair most of her childhood. My autoethnographic journal entries also revealed similar feelings and thoughts. Codes such as white gaze shed some light on the impact

that perceptions of Black hair had on participants. My autoethnographic journal entry yielded

similar results in that attitudes and comments about my hair and the lack of representation

resulted in chemically relaxing my hair. In fact, I began to see my hair as the one phenotypical

feature I could change in an effort to look like my peers. In a journal entry from October 2020, I

write that:

> Since I could not alter those other features without some level of drastic/invasive
> intervention, my hair became the canvas/outlet for that frustration. More than anything, I
> wanted long, flowy, straight hair that wasn't heavy or didn't make any noise because it
> was adorned with beads. As time went by, I finally asked (more like begged) my mother
> to relax my hair and from the ages of 12 to 21, I had my hair chemically straightened.

Like my participants, what I did not realize at the time was that no matter how long I sat with

those chemicals, in my hair, I would only approximate whiteness and my hair would never be as

smooth and flowy as I desired. This feeling was reciprocated by Simi who laughed when

describing her memories of getting chemical relaxers and dealing with the disappointment of her

hair not looking like her peers' while being unable to keep the relaxer in her hair for too long.

Considering the small sample size, conducting the interviews and the autoethnography produced

a data set packed with potentially interesting insights about hair, hair braiding, and diasporic

identity.

Summary

This chapter has presented the main findings from my interviews and autotherapy. Specifically, I have engaged with sensory and somatic themes as they emerged in my data. The categories included memory, identity and belonging, and technique. I arrived at each of these categories by approaching the interviews and ethnography through a sensory lens (Pink, 2009). Specifically, I developed a 'critical somatic perspective'(Chang, 2016, p. 49). This perspective allowed me and my participants to interact with these categories that initially seemed indistinguishable. By adopting a view of the body that accounted for the three-dimensional perspective described by Chang (2016), I demonstrated that sensory practices are always part of larger cultural and historical contexts. Indeed, this chapter has situated hair braiding experiences as a unifying experience for Black women in the diaspora. The data produced in these interviews and ethnographic journal entries highlighted the importance of sensory memories and perspective in identity formation. The following chapter will contextualize the data described here in the context of the theoretical framework I have proposed to study Black hair and diasporic identities. Furthermore, the analysis will provide an evaluation of diasporic transindividuation as a theory that situates identity formation in technical practices. The chapter will also serve as a discussion and will provide a synthesis of the arguments made throughout this thesis.

Chapter Five: Hair as primary data

> Just as individual strands of hair are commingled and woven together to form the intricate braid patterns found in cornrows, the rituals, symbols, and beliefs experienced by women of African descent can be viewed as the building blocks that work together to form the cultural domain of hair (Watson, 2010, pp. 228–229).

As stated in earlier chapters, this thesis hinges on the following research questions: 1) Why are cultural practices, such as hair braiding visible in the diaspora when colonization was, in part, predicated on the erasure and devaluation of African cultural practices? 2) How can we understand hair braiding as an instance of Black technological innovation? 3) How does thinking about hair braiding as a form of transindividuation redefine what is considered technological? As such, this chapter considers the relevance of these questions and what answers questions might emerge when considering the discussion in the previous chapters. Indeed, this chapter will serve as a place to reflect on this project as a whole and future projects invested in diasporic transindividuation as a theoretical framework, sensory ethnography or hair grooming practices and diasporic identity formation.

Hair as an interface

The conceptual framework for the study of hair grooming practices and identity formation for continental African women begins with an acknowledgement of the theoretical significance of hair. As stated in the first chapter, hair is dead but it is also alive and dismissing it simply as a "margin of the self" (Kwint et al., 1999, p. 9; Thrift, 2008) fails to account for the ways in which hair is continually imbued with meaning. Reconsidering the meaningfulness of hair as a meaning-making instrument, in turn, requires that we reconsider the role that the body plays in interacting with our surroundings. Framing hair through this ontological perspective allows for a study of the links between hair grooming practice and identity formation that centers

on hair's role as an actor in a network where notions of belonging, diaspora, identity, and belonging are constantly negotiated. Indeed, actor-network theory provides a useful lens through which to understand how hair mediates and gathers these other actors. Because actor-network theory positions actors as "a condition for the possibility of the formation of human society," hair is not only made meaningful through grooming practices, but the follicles also themselves carry a range of meanings (Latour, 1993, p. 111 in Sayes, 2014, p. 137). As Sayes (2014) notes, treating nonhumans as "mediators rather than intermediaries" is necessary if we want to move beyond simply treating nonhuman actors as "substitutes for human actors" (p. 138).

Here, the ontology of actor-network theory furthers contextualizes the co-creation brought forward by Stiegler (Howells & Moore, 2013; Stiegler, 2012) and developed in the theoretical framework of this thesis. The theory of diasporic transindividuation, as it relates to hair braiding proposes that hair braiding should be considered as constitutive practice because it allows diasporic subjects to transindividuate as they rely on mnemotechnics, the externalization of memory through objects. The texture of their hair itself and how its handled allows the diasporic subject to individuate. As stated in previous chapters, tools and objects help subjects individuate as they are used to interact with the world. Treating hair as an interface indeed allows us to argue that hair braiding is a technological practice in and of itself.

Hair as a medium

Conceding that hair acts as an interface between a range of actors creates implications for how the hair itself is handled. These implications are most obvious in the set of sensory assumptions that underline the methodological chapter of this thesis. It is only through those assumptions that it is possible to argue for the value of sensory ethnography as a theoretical and methodological project. Indeed, I suggest that the human has always been technical and engages

in "thinking-through-knotting" and that it is this hand-eye-mind connection that differentiates them from other animals with which they might share other senses such as vision, smell, and taste. Indeed, that the hands are in motion is central to both Stiegler's (Bluemink, 2020; Stiegler, 1998, 2012) and Ingold's (2011, 2015) understanding of human cognition. As a cognitive and sensory practice, "thinking-through-knotting" recasts hair as more than a "dead margin of the self" (Kwint et al., 1999, p. 9; Thrift, 2008). Indeed, thinking of hair as a medium helps strengthen the claim that hair braiding is a technological practice. Making this claim requires that we also address race as a technology since, as stated in the literature review, hair and race are intimately related.

Chun (2009, 2012) is able to make and substantiate the claim that race is a technology, in part, because attempts at engineering race and breed out unwanted genes cast race as a signifier of genetic and social difference. As a medium imbued with such meaning, hair grooming becomes a practice or doing and undoing race. Here technological denotes Stiegler's understanding of technology as the synthesis of the psychoanalytical process which involves the hands and the mind through tertiary memory while considering hair itself as a technological medium. As stated earlier, that relationship between doing and thinking, or rather remembering, is what differentiates us from animals and is integral to the homo sapiens' cognitive development. In other words, cultural practices (also called technics by Stiegler) allow us to think of ourselves as 'humans' through cultural practices that reinforce/foster a cognitive process of group belonging (where the 'I' becomes 'We'). This cognitive process allows us to "remember" who we are.

This line of thinking also highlights one of the limitations of this thesis. While these claims are foregrounded by a theoretical framework, the perspectives of hair braiders themselves

are missing. Although one of my participants expressed that she braided hair on a regular basis, she did not consider herself a hair braider. That was, in part, due to the fact that she only regularly braided her grandmother's hair and was still learning about different styles and techniques. Nonetheless, it would be remiss to deny that the perspective of hair braiders is central to a project such as this one. Although this thesis originally included ethnographies and interviews, the COVID-19 pandemic, and the ensuing restrictions on in-person interactions have impacted this project. My own ability to braid hair has been an adequate substitute given the circumstances but future researchers who wish to study the diasporic identity formation and hair braiding would benefit from interviewing and observing braiders and their clients.

Hair braiding as a chronotopic practice

Thinking of race as a technology (and hair as technological) begs the questions: What can hair do as an actor, and how does it enact that agency and is mobilized for the purposes of transindividuation? Hair braiding, as it were, is best understood as a chronotopic practice. Peeren (2006) defines chronotopic practices as those practices that "interpellate subjects in(to) collective spaces and in(to) collective time through specific spatial and temporal norms" and cultural practices (p. 71). According to Peeren (2006), chronotopic practices are closely related to the third-space described in Homi Bhabha's work (Bhabha, 1990). This disruption of space-time, as it were, creates spaces where identity, race, and (un)belonging come to a head. The chronotopic space amplifies tensions between the multiple, and often contradictory, identities of continental African women. Chronotopic practices, such as hair braiding, do not necessarily reconcile those identities but they make the tension visible by exposing what is sought after by diasporic subjects. This was identified by my study participants who discussed the conflicting and often

contradictory feelings they had about their hair. On the one hand, they wanted to embrace their hair and the styles that they know their family members and compatriots might wear back home.

On the other hand, they recognized the effects of beauty standards that exist in western societies and the negative perceptions of afro-hair and Afrocentric hairstyles. Therefore, each time these women decided to get and be seen with their hair braided, they created space to negotiate conflicting aspects of their identity. Thinking about hair braiding and its role in identity formation for this 1.5 generation highlights the generative nature of hair braiding, as a chronotopic practice. This generative ability also recast the body and its extremities as tools for meaning-making rather than simply being imposed meaning. The above also points in the direction of transindividuation as a theoretical framework that accounts for these concerns and connects these paradigms. As well, it takes the commitment of the epistemologies of the South as epistemologies of recovery by problematizing assumptions about cultural transmission between Africa and the Americas.

Conclusion: hair braiding as cosmotechnics

Beyond reviewing the research questions that support this project, this chapter also serves as a reminder of the broader goal of this thesis which was to argue for the inclusion of hair braiding in conversations about technological practices. In fact, this project argues that expanding the categories of communication technology and media to include practices such as hair braiding is necessary to recognize the contributions of different epistemological traditions to the genesis of technology. Therefore, the "work of recovery" described by de Sousa Santos (2018) begins by accepting that was is currently considered under the technological category, in Western media history, might not produce an accurate picture of the history of technological development and communication media.

Here, I will consider the implications of treating hair as a communication media and hair braiding as a communicative practice. Although practices such as weaving, knitting, and hair braiding have historically been dismissed to the realms of craft, weaving and technology have always been entwined. Indeed, the Jacquard mechanism is often considered an early predecessor to computer processing (cf. Davis & Davis, 2005). This claim is not new Randell (1994), Essinger (2007) and, Fernaeus et al (2012) have written on the connection between the Jacquard mechanism and computing. Although this thesis does not focus on weaving, the claim that weaving should be considered in the history of media and technology was central to the start of this project. Having come across writing on writing describing the connection between the Jacquard mechanism and modern-day uses of algorithms, I began thinking about whether or not other seemingly benign practices could be recast by framing them within the fields of media or science and technology studies. Said differently, seeing the similarities between weaving and braiding, I decided to investigate the potential of treating hair braiding as a technology. This was further encouraged by Eglash's (1997, 1999) ethnographic which focuses on the relationship between African fractals and modern computing. Specifically, Eglash (1999) writes that:

> Design themes are like threads running through the social fabric; they are less a
> commanding force than something we command, weaving these strands into many
> different patterns of meaning (p. 4)

This final chapter, then, is interested in uncovering how these patterns of meaning are created and mobilized in ways that are often ignored in the fields of media studies and science and technology studies. To accomplish this task, I wish to answer the following questions: what can happen when we begin considering hair braiding a communicative practice and what can it illuminate about the conditions of Blackness? Here, I wish to argue that thinking about hair braiding as a technological practice makes the intangible relations that make up human

interactions visible. Here, the practice of braiding hair acts as a transitional object which creates

and sustains the relationship between a hair braider and the person who is getting their hair

braided. As articulated by my research participants, these relationships often extend beyond

stylist and client. Indeed, both the hair braider and her client are constituted and transformed in

the act of braiding hair.

Because hair acts as a transitional object, the braiding of one's hair can be understood as

the bringing together of the histories and relations that constitute Blackness. Such a definition of

technology would see each part and relation of production that made the final object

technological rather than the object itself. An approach to technology which considers the

relations between objects and individuals is necessarily indebted to cosmotechnics. Here, hair

acts as a transitional object which allows a multitude of relations between individuals, and non-

human actors to become visible and legible. As the first pharmakon[14] (Stiegler, 2012, 2013) the

"transitional object" creates and sustains the condition of being, by being inscribed and

reinforced through sets of relations. It is only possible through this relationality between beings.

Thinking of hair braiding as a technological practice also necessitates that we think of

technology as something that is processual in nature. Understanding technology this way allows

for the many interactions that constitute it to emerge. Said differently, this approach to the

technological views even the seemingly mundane as rife with technological potential. Such an

understanding of technology expands the definition from that which brings forth[15], to that which

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[14] Stiegler (2013) describes the first pharmakon as the "transitional object" which "holds between" (p. 2). This intangible object is made real by the relationships it sustains. Although the transitional object does not exist, other objects can enable it to appear. In describing how this object operates, Stiegler (2013) uses the example of mother and child who are and the many objects that allow mothers "to encounter" their children and therefore motherhood as a mode of being.

[15] In The Question Concerning Technology Heidegger discusses the loss of *poiesis* or "bringing forth (*Hervorbringen*) " (Hui, 2017) in modern technology. He argues that modernity transformed all things into standing reserves to be mined and transformed (Chun, 2009, p. 20; Hui, 2017).

transforms. This distinction creates the space necessary for these "other technics" to make themselves known. Hair acts as media insofar as it is encoded and encodes relationships, histories, place, and knowledges as its manipulated. These connections are expressed are in the intricate designs and patterns of braids worn by Africans living on the continent and diasporic Black people. Said differently, hair braiding makes visible networks of connection between a range of human and non-human actors. As a media, hair expresses the relations between human and non-human in ways that are radically different from other communication technologies such as computers or phones.

According to cosmotechnics, technology is not a "transcultural category" but rather, it is "dependent in its unfolding on a non-technological cosmological factor that is culture-specific" (Lemmens, 2020, p. 5). Therefore, technology is the sum of the interactions between individuals, their environment, and cultural practices. When viewed this way, technology begins to encompass a range of seemingly unexciting cultural practices. Furthermore, Hui (2017) describes cosmotechnics as resulting from ecologies of relations between a range of human and non-human actions. The argument of cosmotechnics illuminates how objects are embedded with relations of production that individuals take upon themselves in interacting with them. Hui (2017) notes that the butcher who slaughters cows is transformed, not by the slaughter itself but by the way the practice transforms his life. Cosmotechnics are transformative because they exist-function outside the technical object itself. Furthermore, the transformation of the individual is what allows the technical itself to realize itself as a technical object. Cosmotechnics is therefore concerned with the "question of living, rather than that of technics" (Hui, 2017). Through this lens, each strand of hair is imbued with meaning and the act of bringing these strands together to form a braid further transforms the hair itself, the person whose hair is being braided, and the

hair braider themselves. Each manipulation leaves its trace in the hair and further imbues it with

the meanings that its wearer carries with them. The transformation of the individual through their

hair also disrupts notions that media must be 'read' to be understood and that the technology is

rooted in practice rather than technological output.

As a cosmotechnic, hair braiding transforms hair by drawing on the shared past of

diasporic subjects. Each strand of hair carries the weight of a people's history, braiding hair

brings together these shared histories and transforms both the hair braider and the person whose

hair is being braided. Hair, then, is transfigurative in nature. Transfiguration, which finds its

origins in Christian theology is used to describe the transfiguration of Jesus Christ on a high

mountain where he becomes "the meeting place for the temporal and eternal, with Jesus himself

as the connecting point, acting as a bridge between heaven and earth" (Matthew 17:1-8, The

Bible, King James Version, Complete Contents, 1992). The metaphor of transfiguration provides

a useful way of understanding the disruptive and corrective nature of Black hair braiding. Indeed,

the data collected as part of this thesis brings attention to the ways in which hair braiding possess

the ability to project continental Africans in space and time and disrupts the conditions of

Blackness which appear as a:

> loaded, burdensome, and unhinged, symbols of raw intensity and repulsion, the two have
> always occupied a central place—simultaneously, or at least parallel—within modern
> knowledge and discourse about man (and therefore about humanism and humanity"
> (Mbembe, 2017, p. 2).

Additionally, Mbembe (2017) writes that race has operated as a "foundational category that is at

once material and phantasmic" (p. 2). Despite being antithetical to Humanity, the spectre of

Blackness is inescapable since western societies continue to define themselves in opposition to it.

This inherent nothingness contributes to the dismissal of Black and Afrocentric thought in the

fields of communication and media studies.

Treating hair as a media and hair braiding as a technological practice also highlights how cultural practices allow continental Africans to disrupt the conditions of Blackness identified by Mbembe (2017) to highlight the inherent tensions of existing as a diasporic subject in these "post-colonial" times where the colony has been transformed into a global entity. Mbembe notes that while the term Black was imposed on people of African descent, the term also served to describe:

> signaled a series of devastating historical experiences, the reality of a vacant life, the fear felt by the millions trapped in the ruts of racial domination, the anguish at seeing their bodies and minds controlled from the outside, at being transformed into spectators watching something that was, but also was not, their true existence (2017, p. 6).

This racial classification was the product of a "social and technological machine" which in its wake left peoples and lands depleted of their resources. Conversely, Blackness becomes:

> the symbol of a conscious desire for life, a force springing forth, buoyant and plastic, fully engaged in the act of creation and capable of living in the midst of several times and several histories at once (Mbembe, 2017, pp. 6–7).

As a communicative practice, hair braiding can project continental Africans into futures that do not yet exist and creates the possibility for Blackness to define itself outside the claws of whiteness and stand on its own. Here, hair braiding becomes an exercise in making and (un)making historical legacies.

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