

Crossroads

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Letter from the Editor

Dear Readers,

On behalf of the Editorial Board, it is my pleasure to share with you this volume of *Crossroads*: The University of Michigan Undergraduate Journal of Anthropology. The articles in this volume represent the outstanding anthropological research and writing that is currently being accomplished at the undergraduate level at the University of Michigan and many other institutions across the country and the world. We are proud that this journal represents the diversity of theoretical and methodological approaches at use in anthropology today.

This volume is comprised of six essays which draw on archaeological, biological, sociocultural, and evolutionary anthropology to examine communication, memory, and evolutionary changes in various groups and societies. In the first essay, "You had beans and rice while in prison, right?': Intergenerational Communication in Post-Genocide Rwanda," author Cameron Voss discusses intergenerational communication between Rwandan caregivers and children in the post-genocide society. Author Victoria Garrow then reviews ethnographic research on addicted pregnancy in her article "addicted.pregnant.poor: A Book Review" and examines the societal roles and structural constraints affecting addicted pregnant women. In "The Evolutionary Significance of the Hijab," Fatima Rizvi next explores the adaptive role of veiling in women and suggests evolutionary functions of the hijab. Next Jenny Michlich focuses on the evolution of language in hominins and selective pressures that influence auditory and visual systems in "Audition and Communication in Hominins: Evidence from the Fossil Record." In "Death Custom and Society Among the Lehonians," Celia Weberg and Madeline Topor apply mortuary hypotheses to ethnographic and funerary data from Lehonia in Greece to determine if the results are able to accurately describe the living society. Ending this edition of Crossroads, author Xiaoke Yang discusses the exploitation of young girls through the phenomenon of compensated dating since the 1990s in "Commodified Shōjō: Teenage Sex Exploitation in Post-bubble Japan."

I would like to thank each and every member of the Editorial Board, as well as our authors, for the time and effort they have dedicated to the success of this publication. The process would not have been nearly as rewarding without their thoughtful revisions and brilliant ideas. In addition, this issue would not have been possible without the help of faculty in the Department of Anthropology.

Sincerely,

Madeline Topor, Editor-in-Chief, Crossroads

Communication, Memory, and Social Change

"You had beans and rice while in prison, right?": Intergenerational Communication in Post-Genocide Rwanda by Cameron Voss

This research strives to understand and record the various ways Rwandan caregivers (dis)engage with the children under their care through discussions of their own, others', and their country's challenging history. A generation of survivors, perpetrators, returnees, and other Rwandan citizens undertake the essential act of socializing children in a post-genocide society with a government that enacts its own narrative. I specifically examine how Rwandan families with children born after the 1994 genocide against the Tutsi integrate or ignore the national narrative posed by the current Rwandan government when speaking to their children. I analyze 37 interviews and each unique response, or lack thereof, provides better insight into the complex intergenerational communication taking place in the post-genocide society. As an undergraduate student, this research also provided me with first-hand experience of the inherent limitations of conducting research through an interpreter, in a post-genocide setting.

INTRODUCTION

"Daddy, tell me again who died in your family in genocide?" Gabriel, the father of young Eva responded, 'My mum, my dad, my sister and my brother." He shifted in his chair across from me as he continued recounting the time his daughter probed him for details about his deceased relatives, including his many uncles. "We really had serious conversations while I was giving her a bath. I don't know why. I think she was very happy and really excited." Gabriel looked off into the distance as he recalled a conversation from almost a decade ago. He had been next to the tub as he washed his four-year-old daughter when she asked an unexpected question:

"But daddy, why does your family like to die so much?" Eva did not let him respond to the first question before adding, "I mean, it seems like everyone in your family got killed. Why is everyone in your family getting killed? What's wrong with them?" Gabriel, who had been overtaken with laughter as he told me the story prefaced it with the statement, "This is so funny and so sad at the same time." His wistful chuckling continued as he shared his reply to Eva's question: "No, no baby. They don't like that. Nobody likes that, but it happened because there was a genocide." Gabriel concluded, "[Eva's questions] really stayed with me, it was so shocking, yet held so much innocence" (Gabriel 2018).

Gabriel was one of the 22 subjects of my research who remembered the first time their child talked about the genocide. His four-year-old daughter was by far the youngest child to ask questions about the 1994 Rwandan genocide against the Tutsi, with most caregivers averaging the age of their child to be 10.5 years old. In this article, I examine how Rwandan families with children born after the genocide integrate or ignore the national narrative posed by the current Rwandan government when speaking to their children. Drawing upon 37 caregiver's experiences, I explore who initiates the conversation and the extent to which caregivers speak openly about the genocide with children under their care. These actions, intentional or unintentional, are shown through when and who begins the conversation, the message behind their response, topics that are avoided, and the national environment the conversations occur within. This research finds that youth and the national government of the Republic of Rwanda are both calling for open and honest communication on the topic of the genocide, but some caregivers are not wholly submitting to their government's and their children's requests on this issue. Before understanding the importance of these multiscale and intergenerational conversations, there is a need to review the timeline of events leading up to and immediately

following the genocide.

BACKGROUND

The ethnic and social identities of "Hutu," "Tutsi," and "Twa" people may have been present in pre-colonial Rwanda, but it was not until the Belgians came in 1916, during World War I, that these fluid economic statuses became the ethnic controversy that culminated in the 1994 genocide against the Tutsi (Mamdani 2001, 34). To better subjugate the Rwandan population, the Belgians created formalized, fixed categories tied to perceived physical, rather than social or economic, characteristics (Mamdani 2001, 41). The Roman Catholic Church also endorsed this race theory through their missionary policies in conjunction with Belgian colonizers. The Church justified their rule by invoking the once popular Hamitic hypothesis, which subjugated African peoples based on the biblical curse on the son of Noah, Ham. The Tutsi were given superior status over their countrymen due to features that were considered desirable (Mamdani 2001, 79). These features included taller statures, longer noses, and specific skull size. In 1933, the Roman Catholic Church advocated for a census of the country, in order to issue national identity cards that racially labeled citizens as Hutu, Tutsi, or Twa. With the labels regulated and encouraged from the overseeing Belgian colonial social institutions such as schools, education, and other governmental bodies, Tutsis gained access to education, privilege, and power. Meanwhile, the Tutsi and Belgians treated Hutu and Twa as inferior beings until the late 1950s, when the end of the colonial age saw a transfer of power from Tutsi minority to Hutu majority rule.

The new Hutu regime subsequently expelled Tutsi from schools, jobs, and clergy positions.

Hutu that did not agree with the changes (hereafter referred to as moderate Hutu) were targeted

as well. Very quickly this power shift created waves of Tutsi and moderate Hutu refugees fleeing the turmoil within the country to surrounding countries like the Democratic Republic of the Congo, Uganda, Tanzania, Burundi, or nations further abroad (Gourevitch 2015, 277). However, many Tutsi and moderate Hutu were unable to leave the country.

This unrest within and beyond Rwanda came to a head when the Tutsi and moderate Hutu diaspora came together to form the Rwandan Patriotic Front, or RPF, in an effort to return to their home country of Rwanda in 1990. At this point the civil war began with the RPF at the border in southern Uganda fighting their way into northern Rwanda, while the Hutu government fought to push them back. For decades, corrupt Hutu extremists within Rwanda received funding through the aid of international donors that was disproportionately given throughout the country (Uvin 1999). With help of the French government, large sums of international aid were used instead to purchased guns, ammunition, and machetes in preparation for the genocide by the Rwandan Government. The United Nations looked indifferently upon the paper trail that proved a genocide was being organized (Barnett 1997). Warning signs went ignored by the international community, who pejoratively characterized this product of colonial rule, corrupt leadership, and uneven development as an "ethnic conflict". At the beginning of 1994, the Hutu extremists were losing to the RPF, so they implemented their Final Solution. Their carefully planned genocide started on the night of April 6, 1994 and continued for over one hundred days. Some estimate over one million Tutsi and moderate Hutu were killed by Hutu populations motivated by extremist policies, propaganda, economic gain, and fear of violence that might be directed at their families' lives (CNLG 2019).

The invasion of the RPF forces from the north marked the end of the conflict and the return of the diaspora of Rwandese directly after. Most perpetrators of the genocide were put on trial

through the Gacaca Courts. *Gacaca*, a Kinyarwanda term, means "Justice on the Grass" or "Dialogue Justice." The Gacaca Courts, with the first trial beginning on October 3, 2005, "combined the traditional local justice system with modern jurisprudence, with the aim of achieving truth, justice, and reconciliation. Gacaca Courts were able to try 1,958,634 cases of genocide within a short time" (Justice & Reconciliation 2017, 2). The new Rwandan government expedited genocide cases and implemented innovative forms of punishments. In 2005 the travel d'interet general, or TIG, program, which promotes "community service as an alternative penalty to imprisonment," provided a more constructive and community building alternative which focused on ideas of unity and reconciliation for the perpetrators that qualified (Justice & Reconciliation 2017, 3).

Education of youth also adopted a focus on civic identity (Buckley-Zistel 2009, 31). The schools closely regulate how and when children learn about the history of Rwanda. History related to the genocide generally begins in grades five or six. "One Rwanda" is a common phrase used socially to highlight unifying initiatives and the mindset that encourages a sense of community. The idea for a "One Rwandan identity" sprang from this need for a cohesive peace (Ingelaere 2010, 53). Although the "One Rwanda" system of thought is a standard close to the heart of Rwandans, the post-genocide society still holds itself to new categories labeled "survivor", "perpetrator", and "returnee" (Mamdani 2001, 266). One of the main challenges that faced the Rwandan government was how to appropriately handle differently traumatized populations within the same society.

While I was considering this project, I was struck by how many Rwandans I spoke with held similar questions regarding the next generation. I wanted to know what and how Rwandans spoke to their youth about their sensitive past, and the implications that could stem from how it

was done.

LITERATURE REVIEW

INTERGENERATIONAL COMMUNICATION

The intergenerational communication, or lack thereof, on the topic of traumatic past events is an important field of study for the implications it has on individuals, families, or even a nation's historical narrative. Existing familial communication studies involve survivors of the Holocaust (Giladi 2012; Kangisser 2010; Keller 1988; Lichtman 1984), Native American boarding schools (Brave Heart, Maria Yellow Horse, and DeBruyn, Lemyra M, 1998), and Japanese-American internment camps (Nagata and Cheng, 2003; Nagata, 1998, 1993, 1990a). Like these research studies conducted around the world, I continue the goal of attempting to understand the complexities of intergenerational informal familial communication patterns on the topic of race, ethnicity, and generationally transmitted trauma (Chaitin 2003; Nagata and Cheng 2003).

CHILDHOOD

Many researchers have documented the ethical and procedural issues raised by the social and academic study of childhood. To start, even the act of defining the terms "childhood," "child," or "youth" often puts forth an unfair universal standard. This is best combated by not defining the terms by age range or cohort, but as a social "shifter" (Durham 2000, 116; Silverstein 1976; Jakobson 1971). This research understands that "youth," and other terms like it, are relational and culturally constructed and, therefore, must be studied and understood in their relative cultural context. "Children" in this research will be defined as human beings categorized as non-adults and "childhood" as a period some people pass through on the way to becoming an

adult (Boocock 2005, 7). This definition is further restricted by standards in the west where "youth" is often defined as 18-years-old and under.

The social environments of children include complex layers such as family, peers, school, local community, province or state, nation, and global community (Boocock 2005, 8). These areas overlap and can enforce and contradict the ideals of each other. Although the culture plays a large part, the agency of the child also determines the amount the child interacts with each environment. Some environments, such as national or global environments, are more external or removed, and might be perceived as having less effect on the immediate surroundings of the child. For example, some national laws are created that impact the immediate familial level (Boocock 2005, 9). Each social environment does have some form of impact on the child, yet this study will focus mainly on the familial environment and implications it may have on the nation by way of the caregivers' aligning or deviating from the national narrative.

AGENCY AND STRUCTURE

When studying children, a lot of focus is placed on the environment, but not on the agency of the child. Definitions of agency include: "the actions of individuals, alone and in groups, that create and transform culture" or "creative acts of intentioned individuals that generate social form and meaning" (Kottak 2019, 502; Erickson and Murphy 2013, 195). For this research, I define agency as the ability of individuals to effect change and make decisions to shape their experiences. Historically, agency has often been defined by social scientists in terms of its relationship to another concept: structure. Dr. Cole defines structure as an "interconnected set of social forces that shape thought, behavior, experiences, choices, and overall life courses of people" (Cole 2019, 1). Agency can reaffirm social structures through reproducing established norms and relationships. Agency can also challenge structure by presenting alternatives to

proscribed thought or behavior (Cole 2019, 2). As Allison James pointedly addressed, in past academic settings, children were not thought to hold agency (2007, 262). Rather, they were empty vessels to be filled with knowledge and experience from those around them. Today the academic understanding of childhood holds a more nuanced view that accepts the fact that children act agentively while still learning from the environments around them.

MEMORY

The study of memory, especially when concerning past collective violence, has many complex effects. Individual experiences do not always mirror the collective memory of a group or nation. These differences in experiences can be dealt with in a myriad of distinctive ways. For example, creating a law endorsing only the nationally accepted narrative of the past could prove difficult for those that experienced the history differently than what is presented. These experiences of the individual versus the collective are further complicated by the reflection, experiences, and social context of the generations thereafter (Argenti and Schramm 2010, 2). I found that the experiences had by the individual caregivers in some cases overruled the collectives' response. Examining what caregivers portray intergenerationally could perhaps be different than what they portray publicly or intentionally. What people think or say outside is not always the opinion shared in the safety of one's home. Such multifaceted nuanced responses to the memory must be taken into careful consideration when studying remembrance. How history is fostered in academic and public spheres, such as level of control over political ramifications, justice, representation, and overall narrative of the presented history is imperative to discern (Lehrer 2014, 7). Individuals living within the community also consider these issues in addition to their own experiences (Eramian 2014, 27). Careful attention and empathy is needed when attempting to understand an individual Rwandan's response to remembering violence.

RESEARCH METHODOLOGY

SETTING AND SCOPE OF STUDY

37 informants contributed to this study in the spring of 2018. The data collection occurred in the third month of my four-month study abroad program located in Kigali, the capital city of Rwanda. Note that I have changed the names of participants to protect their identities. The population of this study includes a wide range of 37 caregivers in two Rwandan cities-- Nyanza and Kigali. Nyanza is the capital of the Southern Province. I defined "caregiver" as any adult, 18 years and older, who interacted with a child daily in order to provide the responsible guidance needed in a child's growth process. I conducted 19 interviews under a non-governmental organization, NGO, and throughout the surrounding community. The other 18 informants lived in Kigali and met in whatever setting the caregivers were willing to meet with me, their home, office, restaurant, or school. The demographics of my study included 27 women and 10 men. While gathering data, individuals identified in different ways including: 14 survivors, one child of a survivor, 3 returnees, 5 ex-TIGist, and 14 who did not disclose the nature of their experience during the 1994 genocide.

The use of age differentiation, a universal age restriction categorization, is not ideal for this cultural study. Universal definition placement on age places arbitrary guidelines that fail to consider differences in culture, ethnicity, gender, history or geographic location (Bluebond-Langner and Korbin 2007, 242). Nevertheless, for the safety of the children, caregivers, and the credibility of the research findings, I maintained the limitation of only speaking to informants over the age of 18 (Boocock 2005, 20; Bluebond-Langner and Korbin 2007, 244).

In only choosing to speak to the caregivers of children, I acknowledge that I am unable to fully articulate the child's agentive perspective on intergenerational communication of the

genocide. I do not presume to know what the children of these caregivers were thinking or their intention in these recollected conversations by the adults. In speaking to the caregivers of the children it is my hope to gain a preliminary understanding of the intergenerational conversation occurring around the topic of genocide and trauma.

Caregivers of children born after the 1994 genocide make up the majority of informants. Similar to the structure of Nagata and Cheng (2003), who spoke with the surviving caregivers of Japanese internment camps, I interviewed both male and female caregivers, although the majority were female. A few individuals were between the ages of 18 and 24, which gave a unique dual perspective of growing up in the 24 years after the genocide and now acting as a caregiver themselves. For example, Abigail, a university student in Kigali, spoke with me at length on her informal learning about the 1994 genocide against the Tutsis. She also expounded on her role as a caregiver. Abigail, like many others, does not have children of her own, yet still participates in caring for her younger siblings, nephews, nieces, and other children that stay in the house she grew up in; she is, therefore, still considered a caregiver.

Like Abigail, a number of caregivers in this study are not the biological parents of the child. Regardless, all caregivers in this study did have some biological connection to the young children under their care that qualified for my study. For example, one family I interviewed was headed by two female caregivers: the aunt, Daphne, and the grandmother, Esther. Although they are not the biological parents, they do provide the main support to Daniel, a 10-year-old child under their care. Indeed, the majority of Rwandan households include extended kin and many adults look after the children of relatives who may be absent due to death, wage labor, education, or illness. It is not uncommon for some Rwandan familial units to be comprised of non-biological relations.

LIMITATIONS

Time was the largest and most prevalent limitation. I only had one month to start and finish this preliminary research project. This vastly limited my ability to conduct interviews and connect with individuals outside my home base of Kigali. Not personally observing an intergenerational conversation about the genocide is a major limitation. All information on how the intergenerational conversations occurred came through interviews that relied on the interviewees' memory of conversations that occurred sometimes years ago.

Other limitations included the credibility and reliability of translations. Identity is a complex topic in Rwanda and is even more nuanced when speaking about the genocide. For example, Abigail, my first translator, self-identified as Tutsi. She freely gave her time to help me talk with four ex-TIG caregivers. Her identity and the identity of the interviewees probably influenced the nature of the conversation. Abigail knew before starting the interview that it would involve interacting with perpetrators. Although her identity was not explicitly mentioned to the interviewees, it is extremely likely that they were aware of her Tutsi background. It is likely the weight of history between my translator and my caregivers influenced her translation of my questions, their perception of her intent, and their responses to the questions.

On all three occasions, the translators were not professionals. I highly appreciate and value their freely given time, but it is difficult to assess the accuracy of their translation. They would translate ideas, summaries, or paraphrases rather than exact words. Even with these limitations, 23 of 29 interviews spoke Kinyarwanda during their interview. Kinyarwanda is the native language of Rwanda and is spoken more widely than English. My Kinyarwanda-speaking interviewees therefore better represent the majority of the country's population.

If this research were in an ideal setting, it would be conducted evenly throughout all five

provinces, instead of only two. The capital city and a city in the southern province are in no way representative of the whole of Rwanda. Although a sample size of twenty-nine interviews is adequate for the amount of time given, gaining more interviews from families around the country would have provided more legitimacy to the study.

The representation of families fell into categories surrounding their status with respect to the genocide; i.e. survivors, perpetrators, returnees, or unknown. This categorization was highly varied based on each individual. Informants were not asked specifically of their status, although at points these categories were freely given or were deduced within the context of the conversation. Survivors made up a large majority of my informants. It was not my intention that they should, but rather an accidental result from the snowball sampling.

DATA COLLECTION TECHNIQUES

Four data collection techniques were used: formal structured individual interviews, informal individual interviews, group interviews, and questionnaires that provided each individual with a format that best suited their comfort and availability. Techniques were non-random through a mix of accidental, purposive, and snowball sampling. Accidental sampling arose through host family connections and new friendships. From these connections, I was able to create a network of people willing to speak with me about their children. In an effort to gain the perspective of perpetrators, my program reached out to an ex-TIG group located around Kigali and secured me a single group session interview. It was through my program that I gained a group interview with four ex-TIG. Using the grounded theory method (Charmaz 2006), I analyzed the qualitative data gained from my informants.

Thirteen of the interviews were conducted in Kinyarwanda, the local language, and translated to English. The remaining interviews were conducted in English. The majority of my

interviews were not recorded. I was cautioned beforehand that it is not uncommon for Rwandans to be open to speaking to foreigners, but unwilling to be recorded. The three recorded interviews were transcribed, while the other 34 caregivers' perspectives were collected and documented manually.

FINDINGS

CHILDREN WITH QUESTIONS

The history of Rwanda leaves many people with questions, and children are no different. In this study, 76 percent (28/37) of caregivers informed me that a child under their care had approached them at some point with a question specifically about the 1994 genocide against the Tutsi. All 28 caregivers claimed to have answered their child's question, yet only 61 percent (17/28) of children asked follow-up questions, and 28 percent (8/28) said that their child had approached them again on topics concerning the genocide at a later point after the initial questioning. These statistics indicate that children desire to gain information from their caregivers. All caregivers reported answering the children's questions, yet there is a divide between the rate at which the initial question is prompted and the rate of any follow up questions. What is making the conversation stop after the first answer? Speculation on this could range from the adult's disposition to the child's agency to simply decide against asking more questions.

The topics that were brought forward by the children varied, but a few common themes emerged. Within the families that had children ask questions, 32 percent (9/28) asked questions about the cause of the genocide. The topic of family history in relation to the genocide also was talked about in 18 percent (5/28) of the conversations.

One of the unique questions asked by a child came from my interview with a man named

Elijah. He was an ex-TIGist who only spoke Kinyarwanda. When asked the question, "Has your child asked you a question about the history of Rwanda," his answer had himself and my interpreter chuckling before I knew what was happening. Apparently, his eight-year-old child had come to him with questions on colonial history. After recounting how the Belgians had furthered the divide between Hutu and Tutsi, his child asked, "Were the *muzungus* (white people) taken to court?" I was not the only one in our circle that thought this line of questioning was out of the ordinary. Unsure of how I would answer if I were in his position, I asked Elijah if he answered the question. He told me he answered by saying they were not taken to court, because there was no oversight at the time (Elijah 2018).

CAREGIVERS RAISING THE SUBJECT

How the genocide is discussed in the family depends on who brings up the conversation. Only 54 percent (20/37) approached their child on topics surrounding the 1994 genocide against the Tutsi. This percentage might be slightly askew, as some of the caregivers informed me that they plan to delay talking to their children because they believe them to be too young. These caregivers were not included in this analysis.

Harold, a father of three, passionately spoke about his plans to tell his children about their family history. He told me he plans to bring them to the ruins of his childhood home in the eastern province, stand them on the hillside overlooking the rubble, and explain to them that this is what happens during a genocide. As he spoke, he handed me his phone with a picture taken on the crest of a hill overlooking a valley. The house he mentioned no longer resembled a home twenty-four years later. All that is left now is a crumbling square outlined with overgrown weeds. Harold expects his children to ask him questions on that day, and he says he is prepared to talk about the death of his mother, father, and seven other siblings (Harold 2018).

MEANING BEHIND THE MESSAGES

Caregivers who spoke to their children on the genocide did so on a wide range of topics, from good governance and the history of colonialism to family history and personal testimonies. The only consistent answer involved 20 percent (4/20) of caregivers who gave their child explicitly positive messages such as "love each other" (Esther 2018), "there is no separation" (Ruth 2018), "we are all human beings" (Noel 2018), or "no one group or ethnicity or religion or human being is better than others" (Gabriel 2018). These uplifting and unifying ideas are admirable and match with the national "One Rwanda" narrative. However, not all caregivers were explicit proponents of the unifying message. Leah, a mother and grandmother, actively chose a message that was against the national narrative.

The majority of the time spent in Nyanza was spent conducting interviews one after the other. Holding these interviews closely together allowed for me to draw connections that I may have missed in such a small community. Perpetrators and survivors live and work in close proximity to each other. The effects of such interactions could most clearly be seen in my back-to-back interviews with Kedar and Leah.

Through the course of the interview with Kedar it became obvious that he was an ex-TIGist, a perpetrator of the genocide who went through the TIG program, living within this community. I appreciated his perspective as being both a caregiver and ex-TIGist. His answers were short and to the point. He did not elaborate on his "yes" or "no" statements, and I did not push him. His answers were like those of others, in line with the national narrative.

Kedar's interview contrasted with the next interviewee named Leah. She was a survivor, mother, and grandmother. In response to the question, "What do you tell your child about the 1994 genocide against the Tutsi?" She responded with, "I tell [my children] not to be friendly to

those that killed." Although this underlying tension was alluded to in academic settings, and at times in hushed conversations, this was the first caregiver in my study who openly admitted to actively teaching her children something other than the national "One Rwanda" narrative." When asked at what age Leah tells them this, and she responded with "once they are 18 years old." This was the tension that I knew was present, but it was not until this interview that it came to the surface. The difference between discussing this point of view in a classroom setting and hearing it said from the mouth of a genocide survivor struck me so hard that it took me more than a moment to recover. My empathy and compassion for genocide survivors will never fully encompass the distressing positions and situations that caregivers like Leah face every day in their small communities.

Leah's actions go directly against the narrative that the Rwandan government is striving to achieve within the country. She goes further by teaching the next generation to do the same. There is a clear divide that while the government is trying to reconcile through constructing a new united community, "One Rwanda," some Rwandans push back against this new narrative in defense of their own experiences.

AVOIDED TOPICS

The majority of caregivers said they would speak to their children on anything related to the 1994 genocide against the Tutsi, yet 33 percent (12/37) said they chose to not discuss certain subjects. Within the twelve caregivers that told me they did not discuss certain topics, one trend was obvious: self-identified survivors made up 66 percent (8/12) and the other 34 percent (4/12) gave no indication as to their status. This was the only question that contained such a strong majority demographic with survivors.

The topics that adults did not want to talk about with their children varied, except for two

small trends. Three separate women said they would not talk to their children about rape. Four other survivors said they avoided talking to their children about violence they witnessed during the genocide. They described giving facts about who died, rather than how they died.

Ex-TIG caregivers I interviewed had a different response from these survivors. Gaining the perspective of perpetrators was particularly difficult. With the help of my program staff, they set up a one-hour group session interview. I conducted a group interview with four perpetrators, three male and one female. It gave me access to multiple perspectives at once and allowed them more comfort through talking together. The downside was they all seemed to silently agree about everything during the interview and mostly chose to not elaborate on their answers.

When asked if they avoided any conversation topics from their children Deborah, the female perpetrator, answered saying, "No, telling the truth is good. It makes us feel good," and the other three men nodded their heads to her statement (Deborah 2018). Although this statement is, in theory, an inclusive answer, it makes me doubt the validity of what they are claiming. It makes me question whether they would truly answer some of the difficult questions a child may ask a genocide participant. Would they truly answer a child's innocently intrusive questions like "How many people did you kill?" or "How did you kill them?" Perhaps if they had been interviewed individually, they may have talked more about their personal experiences with their children. The only other perpetrator I spoke with gave the same answer in a short "No" response.

WHEN TO SPEAK

Knowing the extent to which you should discuss a sensitive topic, especially when you have the personal experience with it, is something that Gabriel says he currently struggles to judge. The bath time conversation with his daughter affected how he thought about parenting. "You

have a brain here that you can influence as much as you like, and it's up to you to shape this brain. I mean, obviously, she will form it the way she wants, but it showed me how much it could influence things" (Gabriel 2018). Gabriel had not to his knowledge approached the topic of genocide with his daughter. He speculated she absorbed the information through the television or some other outside source. Gabriel recognized that he had a key role in shaping her perspective, although she too affected her knowledge base.

Gabriel's daughter was not the only child perceptive enough to notice her father was holding back. Bethany, an 18-year-old child of a survivor, agreed to talk to me about her experience growing up with her mother and aunt, also a survivor. When I asked her if she had talked to her caregivers about the genocide she told me, "When [with my] family, I asked a question. There are some hard questions. [The questions] break the heart of whom you are asking. They try to show you kindness, but inside they are broken." She continued speaking about how difficult it is for survivors to be asked questions such as, "How have you survived?" She learned to ask fewer questions. "In the remembering period, I don't ask [my mother] how she got this," she made a slashing motion with her hand across the back of her neck, indicating scarring from the use of a machete. "[Or] how she ended up living. Maybe she can tell me, but alone she may cry." (Bethany 2018). She could not remember at what age she learned to tell the difference between the persons with whom she could or could not speak about the genocide, but now at the age of 18 she is fully aware the challenges that these questions bring forward and actively avoids speaking about them. Bethany communicated her experiences remarkably well on a topic that obviously was not easily discussed in her familial setting.

SPEAKING OPENLY:

THE CHILD

Sitting in a circle of chairs, with my translator, Abigail, positioned across from me, I asked the group of ex-TIG if they thought their children spoke openly about the genocide. The four of them started to chuckle as one answered on behalf of the group in Kinyarwanda. I was confused with what I considered to be out of place laughter until the translator explained, "They think it is an easy question, yes." These four were not alone in their answer, 89 percent (33/37) of caregivers claimed that their children spoke openly on the topic of genocide. In the 11 percent (4/37) that claimed that their children did not speak openly, only one said it was due to their young ages. I found no difference in the rate of children openly speaking between the cities of Nyanza and Kigali.

All the caregivers said that their children spoke the most openly in the home setting, but many are aware that their children do speak about the genocide with friends outside of the familial setting. Unfortunately, I was not able to directly research these interactions, but one female survivor vividly remembered how her grandson reacted when he was told their family history. Esther, a grandmother who lives with her 10-year-old grandson, told me that after he was made aware that he came from a family of survivors, she watched him soon after recount his family history to the neighborhood children. The first time it happened she explained, she waited patiently to hear the children's response in case she needed to intervene, but there was no need. When asked to elaborate on the other children's reactions, she said they explained they all were also from families of survivors, and this prompted them to share their own families' experiences (Esther 2018).

THE ADULT

When asked if they, as caregivers, spoke openly about the genocide around children, 57 percent (21/37) of the adults said that they did. This question in particular requires a large portion of self-reflection from the caregivers' position. Self-reporting potentially skewed the data based on each individual's level of reflexivity, self-awareness, and bias.

The difference between the caregivers that speak of the genocide in front of children and those that choose not to can cumulate in awkward moments of miscommunication between family members. Such as when Beatrice talked about the genocide with her twelve-year-old grandson, Alex. Beatrice, an ex-TIGist, chose not to openly talk about the genocide in front of her grandchildren. However, this did not stop her grown child from asking in front of Alex, "You had beans and rice while in prison, right?" Alex had not known that his grandmother Beatrice had been in prison as a perpetrator of the 1994 genocide against the Tutsi. Beatrice did not elaborate further on how the conversation ended. When asked if she thought her grandchild would approach her again on the topic, she said she didn't expect him to (Beatrice 2018).

DISCUSSION

Caregivers hold the task of interacting with many of their child's most intuitive lines of questioning. Understandably, some of these conversations directly relate to their family's post-genocide context. While the majority of children approach their caregivers with a question relating to genocide, only about half of caregivers choose to approach their children. Further research would be needed to understand whether the presence of survivors or ex-TIGists in the family makes a difference in the rate of communication. Other research could include if there are future consequences within the families that do speak about the genocide versus the families that do not. The implications of such future studies could hold profound effects on Rwandan families

and individuals.

COMMUNICATION GAPS?

It is abundantly clear from this research that a majority of children are asking and openly speaking about the genocide at higher rates than their caregivers. Conversations on difficult topics, especially on areas related to past trauma, are understandably difficult to discuss with children. The difference in communication rates between the child and caregiver seem to form gaps in communication. In this study, all caregivers said they answered their child if they posed a question relating to the genocide, yet only a portion, 61 percent (17/28) of caregivers, said their children asked follow-up questions. Also, less than a third, 28 percent (8/28) of the caregivers, reported that their children brought up these similar questions again at a different time. This seems to be a surprisingly low amount of questions from children that live within a post-genocide society. Further study on how the genocide is communicated within the family could provide insight into these gaps in communication between the child and caregiver.

Some Rwandan children are conscious of a gap in communication they may perceive within their families. From the perspective of these Rwandan caregivers their children reacted in different ways to the knowledge their caregiver did or did not provide. Different reactions to these potential gaps in communication could result in the child reaching out again, actively searching outside the family for answers, or self-censorship by the child to protect the caregiver's emotional state. In other cases, some children avoid the topic out of lack of interest or reached out to neighborhood friends to retell their history. Future research in this area should be conducted to understand the motivations behind these children's reactions. The implications of these family centered conversations, or lack thereof, could potentially affect areas inside and outside the familial spaces, such as the national level.

NATIONAL IMPLICATIONS

The Rwandan government and individual Rwandans grapple with the topics of ethnicity, politics, and reconciliation. Removing the historical and political identities "Hutu," "Tutsi," and "Twa" from the political sphere stands to correct the colonial legacy. The Rwandan constitution took this ideal seriously and featured it prominently in their new governance policy. Under Article 10, the second fundamental states the intention for the "eradication of discrimination and divisionism based on ethnicity, region or on any other ground as well as promotion of national unity" (Rwandan Government 2018, 10). The government's stance sets firmly on removing any divisionism and replacing it with a single national identity. Major political and social forces work to push past the divisions of Hutu, Tutsi, and Twa. This action of removing the labels created its own set of uncomfortable questions dealing with how the nation would overcome its past.

As Lehrer (2014) explains, there are many perspectives on how to present difficult material and outlooks of histories in the national sphere. For example, some may deem traumatic past events" as 'too difficult' to be viewed in public at all" (Lehrer 2014, 9). Taking this stance of concealing the past atrocity could be viewed as patronizing to the audience. Another tactic could include a "tough love" approach by publicly showcasing the history. However, this could be too violent and potentially re-traumatize the victims and numb the public to their suffering (Lehrer 2014, 9). The Rwandan government chose to take strong actions in public displays and is attempting to reconcile the past through creating a new united national front.

My meeting in Nyanza with Kedar and Leah, a perpetrator and a survivor, produced a more complex and nuanced example of the tension underneath the national narrative. Leah and Kedar are living within a small community and are both members of a cooperative that depends upon

labor that would place them in close proximity with one another. Unlike Kedar, who used his agency to promote the One Rwanda narrative to his children, Leah actively used her agency to push back against the national narrative of a single Rwanda by antagonizing those around her who participated in the genocide. Leah claims to have waited to tell her children "not to be friendly" to those who killed until they were old enough, yet she is a caregiver to multiple generations as a grandmother. It does not seem possible that she could hide her feelings in front of her children until they were "fully" grown to the age of 18. Meanwhile, she also is a grandmother. How do her grown children now act in front of the newest generation based on her teachings? How do the grown children act toward perpetrators? What message do they teach their children?

Everyday occurrences that relate to memory make a difference in the relationships within the community. As Dr. Laura Eramian concluded in her 2009 ethnographic research in Buture, Rwanda, "memory practices are located not just against the 'background' of a violent past, but within broader patterns of everyday social relationships and precepts for the living of a moral life" (Eramian 2014, 28). A person places themselves, and their personal relationship with memory, within a community through everyday acts. In the case of Leah, her "not friendly" teachings and practices constitute everyday acts that contradict the narrative of national unity. This is perfectly aligned with Jim Scott's view of individuals avoiding direct confrontation with authorities by using weapons of the weak (Scott 1985, 14). It was in the everyday act of sharing a meal that Beatrice and Alex also faced difficulties in verbal and nonverbal communication when Beatrice was questioned about her past in front of her grandson.

The communication gaps or deviations found within Rwandan families may or may not be intentional decisions by caregivers. Human action is often contradictory (Berliner 2016, 2). This

could mean that although a caregiver may claim to align with national unity, their actions could potentially conflict with the sentiment. New government leaders are tearing down the structures that played a part in allowing the genocide to take place and encouraging a new structural unity. Caregivers then, intentionally or not, align themselves with the structure or find ways to use their agency to counteract this movement, not only impacting themselves but also the children under their care. A call for equality without discrimination is a wonderful ideal, yet leaving behind the historical and political identities to uphold a new one may not be a part of how the average Rwandans view themselves or how they wish to raise their children. Investigating how families talk about past historical and political identities may provide insight into how future Rwandans will understand their past.

This undergraduate research provides a starting point for a larger conversation on how Rwandans talk with children, in a family setting, about the genocide. No full conclusions can be drawn from the data for a host of limitations. At this point in time, I am not a parent and I do not currently hold the mantle of caregiver for any child. I am an American who only studied in Rwanda for a period of 4 months. I did not mature in a post-genocide society, nor am I an expert in the field. This qualitative research is meant to humanize and make known the nuances that both children and their caregivers are navigating today in Rwanda. More attention and research could discover wider implications, such as how the legacies of genocide are transmitted within the family, disrupted familial structures, changed gender roles, and differing communal memory (Berckmoes 2017, 13). In the future, I hope to investigate whether there is a significant difference in the intergenerational communication from families with backgrounds of survivor, perpetrator, and returnee through a long-term ethnographic project.

Cameron Voss is a senior at Albion College majoring in Anthropology and Religious Studies. Her academic interests lie at the intersection of conflict, memory, and childhood. For the next two years, she will be volunteering in Rwanda with the Peace Corps. After, she hopes to pursue a PhD in Sociocultural Anthropology.

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Communication, Memory, and Social Change

addicted.pregnant.poor: A Book Review By Victoria Garrow

This review book examines Kelly Ray Knight's 2015 ethnography titled addicted.pregnant.poor. Knight's work consists of extensive research on the current societal underpinnings of addicted pregnancy in the United States. In addition to her interviews with addicted pregnant women living in daily rent hotels in the Mission District in San Francisco, California. Knight also reports on interactions with their health care workers, social workers, family members, and friends. By way of spending countless hours alongside these women, Knight untangles the roles they are forced to assume, whether it be as a sex worker, patient, victim, criminal, mother, or child. Through examining these different roles, Knight begins to explain to readers how structural constraints manifest themselves in vulnerability and insecurity in the lives of addicted pregnant women. This review begins with a personal narrative related to the subject and concludes with the societal narrative that the ethnography underscores.

Cords of every color came crawling out of the blanket that tightly swaddled my baby brother's fragile frame. A miniature cannula supported his every breath. When the doctors and nurses were occupied elsewhere, I snuck a look at the confidential clipboard they had left behind. Quickly, I figured out exactly which drugs had resulted in the harsh reality of a premature baby suffering from withdrawal. *THC*, *Benzodiazepines*, *Methadone*.

My heart thudded. When his mother walked in, I could barely look at her. I was filled with an internal conflict consisting of a deep love for my new half sibling and a consuming rage for the woman that caused his suffering. I am still unsure if my anger was ignorant and immature, or rational and justified. Regardless, the cause of this tragic outcome was addiction, which I now believe is correctly defined by the National Institute on Drug Abuse as a continual and recidivate brain disease constituted by "compulsive drug seeking and continued use despite harmful consequences" (NIDA 2018). In a horrible plethora of unfortunate circumstances, the

harm inflicted by substance use disorders extends far beyond the person consuming the drugs. In light of my personal narrative, I was inclined to better understand the underpinnings of addicted pregnancy when I stumbled upon the book *addicted.pregnant.poor*, an ethnography by Kelly Ray Knight that examines the cultural and personal circumstances surrounding women characterized by the three adjectives of the book's title. Delving into Knight's work provides a thorough and unique perspective on how the current opioid epidemic impacts the field of obstetrics.

Before beginning her research, Knight volunteered with an outreach program that supported women living in daily rent hotels in the Mission District of San Francisco. After some time, these hotels became the site of her dissertation fieldwork, upon which this book is based. These dilapidated living arrangements rarely abide by government regulations and are run for-profit. This reality manifests itself obviously in these women's lives, as the hotel managers exploit the women and the women's exploitative visitors through illegal fees, continual harassment (44), infested rooms, and an utter lack of warranted tenant rights (47).

As Knight was composing this ethnography, she frequently switched back and forth between the stories of women she was working with, interviews with their social workers and health care providers, and investigations into the current local and societal implications surrounding addicted pregnancy and infancy. Through these investigations, she delved into the violence, trauma, mental health, disability, poverty, and homelessness that molds the experiences of her target population. As is apparent through the dialogue recorded between her and the women she followed, deep relationships were developed that extended beyond a project and into friendship, vulnerability, and trust.

In the midst of a politically and morally contentious topic, Knight exhibited admirable

bravery as she disclosed her personal sentiments and biased reactions to the circumstances of these women's lives. As she existed in spaces filled with pain, sadness, and frustration, internal dissonance quickly bubbled to the surface. Particularly, dissension arose between her capacity as an anthropologist, needing to observe situations objectively with minimal interference, and her role as a human being, which instilled in her a compelling desire to rip the needle away from a woman who was injecting her pregnant body.

The magnitude of instability in these women's lives is staggering. Each night they are scrambling to secure their rent money, avoid drug withdrawal, evade the gaze of the authorities, and turn over as many 'tricks' as possible. As addicted sex workers, internalized shame perpetuates an urgent motive for continual self-medication. This results in a cycle of incarceration and relapse. As they experience financial and relational loss, their moral economy continues to be depleted (37). This is all taking place as they come to terms with the looming progression of their pregnancies; a process that is undoubtedly altered by the arduous demands of their professions. The everyday realities for these women can be easily recognized as the societal manifestations of inequality and insecurity of basic human needs, heaping debt issued by raptorial lenders, and the nature of an egoistic culture.

Another obstacle for these women is the diverging classifications they have to assume as perpetrators and victims. In an abundance of situations with social workers, doctors, and law enforcement, positive outcomes (in terms of child custody, treatment services, and freedom) are dependent upon women portraying themselves as "both plausibly innocent and sincerely repentant" (204). By their very definitions, the roles they have to assume are in obvious contradiction. Nevertheless, in order to receive aid or sympathy, they have to accept sole responsibility for their current situations while also displaying the traumas of their childhood,

sexual abuse, intimate partner violence, and the impairments of their brain chemistry.

The women that Knight worked with are heavily entangled in the legality of their experiences, as their custodial rights are questioned and terminated on the grounds of their drug use. Additionally, their eligibility for drug treatment, as well as medical care in general, is dependent on their pregnancy status. In cases where miscarriage occurs, their access to rehabilitation for their substance use disorders ends along with their pregnancies. Knight argues that a woman's "worthiness" for healthcare and a relationship with her future child is quantified by social workers' and physicians' assessments. These frequently include "rankings" of an infant's neonatal abstinence syndrome (which does not directly correlate with drug use quantities), the levels of illicit substances in the woman's system at the time of childbirth, and her involvement in court-mandated inpatient and outpatient treatment programs (30). While the very nature of addiction renders many powerless to the compulsive urges to use drugs, women in her study were frequently designated as deserving or undeserving on the basis of the severity of their addiction.

Within this discussion, Knight exposed the futility of our nation's attempts to curb substance use during pregnancy through punishment. In a particularly daunting case in Wisconsin, a woman admitted to her physician that she had misused prescription opioids earlier in her pregnancy and was then incarcerated until giving birth to her child. With this staggering occurrence, as well as other social, societal, and legal implications for using illicit substances, it is no wonder that between 75-90% of drug addicted infants are undetected by the medical system (11). This problem will not be helped by women believing that if they reach out for care from their providers, they will be put in prison and lose custody of their children. Physician-mandated reporting to the state regarding perinatal substance use not only deters women from

receiving treatment for their ongoing substance use disorders, but also dissuades them from prenatal care in general. Inevitably, this results in more babies born addicted, underweight, and leaving the hospital without treatment.

As this book reveals, we must acknowledge that we have come to a point where, as Knight describes, "health and well-being are linked ever more strongly to one's zip code and the environmental stressors of the built environment" (67). For those with poor health outcomes associated with "lifestyle", including addiction, diabetes, sexually transmitted diseases, and obesity, fault is frequently designated to the suffering individual. However, doing so may be classifying one's morality on the basis of where someone lives and the severe trauma they have endured because of it.

This ethnography relates heavily to the ideas of legality and morality, as sobriety during pregnancy is strictly enforced; enough so to warrant swift and extreme consequences for pregnant women who do not oblige. While Knight presents a plethora of pitfalls surrounding how the United States criminal justice and health care systems currently respond to drug addicted women and infants, she finished without suggesting any solutions for improving the current state of care. This leaves readers with an overabundance of issues that they have learned about without any sort of call to action or course for change.

As the horrors of the opioid epidemic seem to be looming around us everywhere, this book adds a necessary piece to the discussion of childbirth. It is critical that the voices of women experiencing addicted pregnancy are heard. As is the case in my own life, a better understanding of the societal missteps that contribute to infants born addicted allows individuals to walk alongside addicted pregnant women with a more empathetic disposition. I would highly recommend this book to women's health advocates, policy makers, healthcare

professionals, anthropologists, and anyone interested in the current dealings of addiction and pregnancy. This book adds essential points to current conversations regarding addiction, criminal justice, pregnancy, and mental illness: eloquently, Knight addresses the overlap between them all.

Victoria Garrow is a junior at the University of Michigan majoring in Biology, Health, and Society. She is passionate about addressing the current opioid epidemic by way of advocacy, research, policy change, and community intervention. With plans to attend medical school, she aspires to become an OBGYN with a specialty in addiction medicine. She would like to thank her dedicated anthropology professor, Dr. Leigh Stuckey, and everyone else who helped make this publication possible.

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Communication, Memory, and Social Change

The Evolutionary Significance of the Hijab by Fatima Rizvi

The veil—or *hijab*—in Muslim women has received considerable attention as a sociocultural phenomenon, but it has rarely been studied through an evolutionary lens. Human behaviors, like other human traits, have the potential to be explained and understood using evolutionary theory. Moreover, understanding human behaviors from an evolutionary perspective, that is, understanding why various human behaviors emerged, may lead to increased awareness and acceptance of various human behaviors. Veiling in women is a human behavior that is often portrayed in a negative light in Western academic spaces and media. Recognizing the evolutionary significance of veiling may lead to a more holistic understanding, and possibly acceptance, of this human behavior. Why do women veil? Does veiling have any evolutionary or adaptive significance? A thorough literature review was conducted on the present theories surrounding the role of the *hijab* and other religious practices on reproductive success. The results suggested that the *hijab* serves several evolutionary functions and that some of these may confer fitness advantages to the women who wear it. One implication of these findings may be reduced contempt surrounding the *hijab* and a more holistic understanding of this human behavior.

Evolutionary theory provides anthropologists with a conceptual framework which they use to understand human behavioral traits as products of natural selection or genetic drift. There exists an extensive amount of literature on the evolutionary relevance of a variety of human behaviors. One such human behavior is the practice of veiling in women, the evolutionary study of which was pioneered by anthropologist Mildred Dickemann (1981) in the late twentieth century. Since then, although veiling in women has received considerable attention as a sociocultural phenomenon, it has rarely been studied in an evolutionary context, that is, as an adaptation. Furthermore, Dickemann's (1981) discussion of veiling in women portrays the veil as an inordinately patriarchal practice, as is common for orientalist writers. Thus, further investigation and additional perspectives are needed to better understand the role of veiling in

the evolution of human societies. As a Muslim woman who wears a veil—or *hijab*—myself, I was prompted to investigate whether the *hijab* confers evolutionary advantages to not just males but also the females who wear it. The *hijab* serves several evolutionary functions; it increases paternity certainty, engenders monogamy, and strengthens intragroup cooperation, and these functions impart fitness advantages to the women who observe it.

It is important to first establish why veiling in women can be explored under an evolutionary lens, as an adaptation. Veiling in women can be understood as a particular expression of a more general trait observed across human societies: an emphasis on the modest attire of women. Such an emphasis can be found in most of the major world religions (Strassmann et al. 2012). Aside from the veil used in Islam, the *sheitel* is worn by some Orthodox Jewish married women conforming to the Jewish dress-code known as tzniut (Loewenthal and Solaim 2016). Religious head-covering and clothing is also practiced by Christian nuns (Pazhoohi and Hosseinchari 2014). In Hindu culture, women are typically expected to wear a dupatta or ghunghat when going outdoors (Devi and Kaur 2019). Similar observations can be made in some indigenous human communities as well. The women of the San Blas Indians of Panama, for instance, wear a bright red scarf over their heads called a muswe, which they use to cover their faces when approaching a stranger (De Smidt 1904). An emphasis on the modest attire of women is not a trait that is unique to a particular human group but rather one that is observed across many different cultures. Thus exploring this phenomenon through an evolutionary lens might shed light onto why it has appeared and exists in several different human communities. The *hijab* is one mode of expression of modest attire in women and will be the focus of this paper.

Before discussing the evolutionary functions of the *hijab*, it would also be worthwhile to

provide a definition of the hijab. It is a dress code for women in Islam, elucidated in the Quran as follows: "And tell the believing women to... wrap their headcovers over their chests" (Quran 24:31 Sahih International). The Arabic term translated as "headcovers" is khumur, which was a specific garment worn by women in the Arabian societies that the Quran was first brought to (Saleh and Al-Qazwini n.d.). Khumur was a scarf that covered the hair but left the chest exposed. According to one interpretation, the Quran's instruction to the woman is to cover her chest with her scarf, in addition to covering her hair. It can be inferred from other verses of the Quran that the dress code also entails loose and unrevealing clothing in general. Clearly, the term used in the Quran for the Muslim woman's dress code is not hijab. Hijab, which translates to "veil," is used elsewhere in the Quran in a different context, but over the centuries people have incorrectly used this term to refer to the Muslim woman's dress code (Saleh and Al-Qazwini n.d.). This is problematic because a "veil" is suggestive of something that hides or swathes something else completely, and often refers to a cloth that covers one's face. And although some Muslim women do wear a face-covering veil, the majority do not and it is not the dress code defined in the Quran. I will employ the term hijab to most generally refer to the Muslim woman's dress code only because it is the most familiar term, but note that it does not literally mean veil in my writing, and that different cultures have different expressions of the dress code, which aren't always consistent with the definition provided by the Quran.

The *hijab* serves many important functions but one of its primary functions is to put a restraint on female sexuality (Sheen et al. 2018). More specifically, it is to restrain women from engaging in extra-marital sexual relations. As a direct consequence, the *hijab* also serves to restrain male sexuality to a degree, as it would restrict males from mating with women who are already pair-bonded (Dickemann 1981). Religion plays an important role in reducing sexual

permissivity, as one study found that higher personal religiosity was cross-culturally associated with lower sexual permissivity (Schmitt and Fuller 2015). Reducing sexual permissivity possibly enhances within-group cooperation, or cooperation between members of the same group, since it would reduce the likelihood of discord over marital infidelities within the group. This may be why it is stressed in many religions (Schmitt and Fuller 2015). Provided that a prime role of the *hijab* is to restrain female sexuality, I will now discuss the evolutionary functions that such restraint of female sexuality could serve.

By restricting a female's sexual relations to just her marriage partner—in other words, mate guarding—the *hijab* serves to increase the paternity certainty of her husband (Dickemann 1981). Paternity certainty is the level of certainty a male has that he is the father of an offspring. This is the most widely discussed evolutionary function of the *hijab*. To demonstrate whether religion and religious practices indeed lead to decreased instances of extra-pair copulation (EPC), Strassmann et al. (2012) studied cuckoldry rates as associated with religion in the Dogon of Mali. Cuckoldry refers to a situation in which a female copulates with a male other than her partner. The findings revealed that the indigenous religion was associated with the lowest probability of cuckoldry, followed by the religion of Islam, and then Christianity. This trend is consistent with the relative regulation of female sexuality that is present in these three religions. The indigenous religion is distinguished in strictly enforcing the use of menstrual huts; Islam requires women to notify their husbands when they are menstruating and emphasizes female sexual purity, both ideologically and through practical means like the *hijab*; Christian women in Dogon communities are not required to notify their husbands or do anything else to signal their menstruation (Strassmann et al. 2012). Although the study did not independently investigate the effects of the *hijab* on EPC, it demonstrated that religious practices that regulate female

sexuality (like the *hijab*) are effective in reducing the probability of cuckoldry. Note that extramarital sex is still quite prevalent across most cultures, but it is significantly reduced in societies that have stronger regulations of sexuality (Schmitt and Fuller 2015).

Paternity certainty is directly related to the extent to which a male invests in his offspring. The more certain a male is that the offspring is his own, the more readily he will invest in the offspring (Dickemann 1981). Paternity certainty is of especially great value in humans because of the high paternal care that characterizes humans (Alexander and Noonan 1979). Thus regulations on female sexuality like the *hijab* that provide males with higher paternity certainty are evolutionarily favorable to the males because they allow for them to invest more in their offspring. As Dickemann (1981) noticed, an explicit recognition of this evolutionary relationship between control of female sexuality and male investment toward family is present in the Quran:

Men are the stewards of women, because Allah has made some of them to excel the others [in different aspects], and because of the wealth they spend [to support them]. So, the righteous women are obedient, and guard in [their husband's] absence that which Allah has guarded (i.e. their chastity) (Ouran 4:34 Mufti Taqi Usmani).

What further illustrates the relationship between paternity certainty and male investment in offspring is the observation that higher status women are subject to stricter regulation and seclusion. Higher status entails greater investment of resources toward offspring, which would necessitate stricter control of female sexuality (Dickemann 1981). In a study that took place in Indonesia, wearing of the *hijab* was positively associated with a woman's attainment of education (Utomo et al. 2018). Although the researchers did not provide an explanation for this association, one of many possible explanations could be that women who attain a higher level of

education marry men of higher status, who then assert greater control over women's sexuality. Since a greater degree of sexual regulation is associated with higher status, the *hijab* may have even turned into a symbol of status and prestige over time (Dickemann 1981). I have mentioned that males derive evolutionary benefit from the *hijab* since it increases their confidence in paternity, which allows them to invest more in their offspring. Does the *hijab* likewise serve a function that confers an evolutionary advantage to the females who observe it?

The encouragement of greater paternal investment into offspring by the hijab serves to be advantageous not just to the male but also to the female, as the offspring is hers too. If the female wears the *hijab*, her male would have higher paternity certainty and would invest more in her offspring. Moreover, for a human female, maximizing the number of male partners does not increase her fitness because she cannot maximize the number of her offspring through them, due to the huge time and energy cost of rearing a child. Finding an investing male to assist her in this energetically demanding task, on the other hand, does have positive effects on her fitness. Thus it is more beneficial for a female to mate with a single, investing male than to mate with multiple males while receiving little to no investment in offspring (due to low paternity certainty of the males). Moreover, engaging in EPC without having the husband find out is too risky a behavior in a species in which paternal care is so important, exhibited partly by the fact that no man in the Dogon population was cuckolded twice (Strassmann et al. 2012). Of two proposed female mating strategies, namely the *dual mating* strategy and the *combo* strategy, the *combo* strategy would generally be more favorable then. The *combo* strategy is where the female seeks a package of both good genes and paternal investment in one man at a time, as opposed to maintaining a continual relationship with one, investing man while copulating with another man just around ovulation to secure good genes in the *dual mating* strategy (Strassmann 2013). The

hijab, through its role in concealing female sexuality and reducing EPC, supports a *combo* mating strategy. In this way also, the *hijab* may be evolutionarily advantageous to the female.

Another evolutionary function of the *hijab* is that it engenders monogamous relationships. The hijab strengthens paternity certainty which results in heavier investment by males, and human males are generally not equipped to sustain multiple long-term relationships because of the high investment involved (Alexander and Noonan 1979). Monogamy is favored as a result. Since monogamous relationships allow women to have a greater number of offspring than polygynous relationships, the *hijab* would arguably be advantageous to women in this way (Moorad et al. 2011). A counterargument is that polygyny will always be favored over monogamy since a man can have more children through polygyny than he can have through monogamy, even if that means less children per partner. However, whether polygyny or monogamy is more advantageous to a male really depends on the situation a particular male is in and the resources he has. If he does not have the resources to provide for multiple relationships and even more offspring, then this, along with the selective pressure imposed by females, will favor monogamy. If he does have the resources to provide for multiple relationships, then polygyny would be more advantageous to him. In general, however, monogamy is more prevalent in human societies than is polygyny (Chapais 2013).

Dickemann (1981) argues that paternal care is not necessarily associated with monogamy in humans because there are many instances of highly polygynous men who also invest heavily in their offspring. These instances, however, are the exception and not the norm. Due to humans' intense social stratification and male-male competition, there is considerable variation in the reproductive success of males. This gives rise to a minority upper-class consisting of wealthy, polygynous men who can afford to win both the quantity and quality of offspring

(Chapais 2013). But for the majority of males, paternal care is indeed associated with monogamy.

Another counterargument to the claim that the *hijab* ensues monogamy is that polygyny is common in societies that practice the *hijab*. These societies, however, also exhibit a high degree of alloparenting, which refers to the providing of parental care by an individual other than the offspring's biological parent, and this makes possible the coexistence of polygyny and high investment toward the young (Shaver 2017; Dickemann 1981). Even so, monogamy remains the prevalent mating system in these societies (Burton 2018). Besides, although the Quran permits polygyny of up to four wives, it encourages monogamy:

Marry women of your choice, two or three, or four but if you fear that you shall not be able to deal justly (with them), then only one... That is nearer to prevent you from doing injustice (Quran 4:3 Eng-Dr. Mohsin).

The Quran once again recognizes an evolutionary relationship, this time between polygyny and male investment toward family.

A third important evolutionary function that the *hijab* serves is the expression of group identity (Zempi 2016). The *hijab* is a symbolic statement as much as it is a practical establishment. A woman wearing a *hijab* almost immediately signals to those around her that she belongs to the Muslim community. Such an outward display of belonging to a social group by itself strengthens intragroup cooperation and solidarity, serving as a means of identifying and unifying the members of a particular group (Zempi 2016). Religion often tends to utilize displays like the *hijab* in Muslims and the *kippah* in Jews to foster this sense of intragroup cooperation amongst its adherents (Irons 2013). Zempi (2016) conducted a study in which she interviewed Muslim women who wore the *niqab* (which covers the face while leaving the eyes

uncovered) in the UK, asking them of their reasons for wearing it. Of the reasons stated were "non-conformity to Western consumerist culture" and "belonging to the ummah [community]." These results exemplify the idea that the *hijab* functions to bring a sense of social belonging into those who wear it, and into those members of the social group who recognize it.

Strong intragroup cooperation can bring about a variety of benefits to the members of the group, including having access to shared resources and having access to mates (Alexander and Tinkle 1968). Unifying practices such as the *hijab* enhance intragroup cooperation and hence have a role in producing these benefits. But although the *hijab* as a display of group identity strengthens intragroup cooperation, it can simultaneously make intergroup interactions bitter, which may affect the individual fitness of the women making this display. In societies comprised of multiple groups living in close proximity to one another and interacting often, symbols of group identity like the *hijab* may serve to alienate members of a particular group from the others. Thus the *hijab* as an expression of group identity can confer both positive and negative fitness effects to the women wearing it and to the larger social group to which they belong.

Despite the *hijab* being evolutionarily advantageous to the female in the ways expounded in this paper, why do so many women in the world not wear the *hijab* or a cultural equivalent? One can argue that this is only due to recent cultural change, and that many women living in countries like the United States a few centuries ago wore some kind of head-covering and loose-fitting dress that closely resembled the attire of many Muslim women (Franklin 2020). Moreover, many women in the Middle East, South Asia, Southeast Asia, Central Asia, and Africa today still wear cultural equivalents of the *hijab*, whether it be the *dupatta*, *ghunghat*, or cultural head wraps. The point goes back to the one made in the introduction; the *hijab* is only

one expression of a broader concept, that of modest attire in women. Modest attire in women is rather a cross-cultural observance. The present societies that seem to least exhibit it are the heavily industrialized and modernized countries such as the United States, China, and some European countries. This however is a recent shift and cultural equivalents of the *hijab* were found even in these societies a few centuries ago (Franklin 2020).

The *hijab* serves a variety of evolutionary functions. It increases paternity certainty, engenders monogamy, and enhances intragroup cooperation, among others. These evolutionary functions of the *hijab* confer fitness advantages to not just males but also the females who wear the *hijab*. Thus the *hijab* may be both a male and a female reproductive strategy. While the *hijab* is often portrayed as an entirely patriarchal establishment, the arguments I present in this paper suggest that it may not be, due to the several evolutionary advantages that the *hijab* confers to the female. I have made an attempt to bring attention to a relatively overlooked topic, achieve a better understanding of the human practice of veiling in an evolutionary context, and to offer a unique perspective on this subject. This paper certainly does not answer all questions about the evolutionary significance of veiling in humans, but it will hopefully inspire future studies to tread deeper into this subject and explore the questions yet to be addressed.

Fatima Rizvi is a junior at the University of Michigan majoring in evolutionary anthropology, with a minor in Gender and Health. She is interested in human behavioral evolution and areas where it interacts with her own identity as a Muslim woman. After graduation she plans to pursue a career in medicine and hopes to use her background in evolution to achieve a more holistic understanding and practice of medicine.

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Communication, Memory, and Social Change

Audition and Communication in Hominins: Evidence from the Fossil Record

by Jenny Michlich

Neural pathways involved in the processing of vocal and gestural communication involve the integration of audiovisual input. While the concepts of speech and language remain functionally distinct, sensory processing is implicated in communicative acts whether they are auditory, visual, or haptic. Although functionally language has been associated with both receptive and productive processing in Broca's and Wernicke's areas, this paper suggests that auditory capacities and that of the processing required of the temporal association cortices, where audio-visual information is integrated, are involved in the beginning stages of language processing. This suggests that auditory and visual systems would have been influenced by selective pressures related to the evolution of language in hominins. This review attempts to synthesize several decades worth of research in the functional morphology of hominin auditory regions and compares this data with human as well as extinct and extant nonhuman primate data, while integrating information from contemporary studies in visual and auditory neuroscience.

Section 1.1 Introduction:

This review seeks to synthesize information from contemporary neuroscience, primatology, and the fossil record in an attempt to infer characteristics of auditory capacities in hominins that could provide insight into parameters for vocal communication. Across taxa, a review of the contemporary literature provides insight into the functional morphology of structures of sensory systems. Given this data and archaeological evidence, certain auditory capacities can be inferred from remnants of the peripheral auditory system which were adapted for specific group structures and ecological niches: meaning the propensity towards closerange communication as opposed to long range alarm calls at territorial boundaries might reveal some of the early stages in the emergence and evolution of language. An introduction to

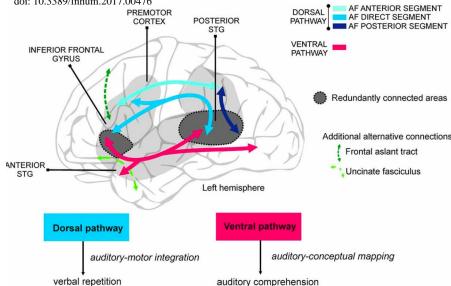
the influence of audiovisual input and its role in language evolution will be summarized.

Section 1.2 Auditory Processing and Language Origins.

Language origins remains a somewhat elusive topic both in the fields of Linguistics and Anthropology. Language origins models are often accounted for through analyzing language ontogeny, diachronic change in language, and through studying second language acquisition (Givón 2002). While there is no representational model for language origins in the contemporary study of extinct Hominins, a comparison of vocal communication abilities in non-human primates and language abilities in *Homo sapiens* could reveal interesting information about sensory systems that initially process signals from vocal communication. Within the fossil record, the focus has primarily been on the relative size and positioning of Broca's cap and its related to Brodmann's areas 44/45 (Balzeau 2014). However, less research has focused on the underlying capacities for language, which include sensory processing of auditory and visual cues. It has been proposed that the evolutionary development in these systems have resulted in the types of language capacities of modern *Homo sapiens*.

While language typically can be interpreted through a series of iconic, indexical, and symbolic structures, how language is represented in the mind is an even more elusive topic than language origins models. The ventral processing stream of the visual system that integrates into the temporal lobe is associated with visual object recognition, and this particular pathway receives feedback from the auditory processing pathway (Givón 2002). In this it might be said the object representations of both the visual and auditory processing streams are integrated in the temporal lobe in auditory association areas. Figure 1 represents the ventral and dorsal visual pathways and the structures involved in this functional stream. From this comes the proposal of "voice cells," which are neurons that record field potentials greater than that of surrounding areas of the brain in the temporal lobe as these two pathways integrate

Figure 1. The ventral stream of the visual processing system integrated audiovisual information from both visual and auditory core regions. This figure is from López-Barroso, D., & Diego-Balaguer, R. D. 2017. "Language Learning Variability within the Dorsal and Ventral Streams as a Cue for Compensatory Mechanisms in Aphasia Recovery." *Frontiers in Human Neuroscience* 11. doi: 10.3389/fnhum.2017.00476



before traveling to
Broca's region BA44/45
(Perrodin 2011). There is
evidence to suggest that
phonemes, the basic
sounds components of
language are also
represented in the
temporal lobe, and not
that of Broca's region,

implying that ventral auditory stream is necessary in the components of processing of the auditory components of spoken language as well as language production (Aleksandrov 2010; Bernal 2016; DeWitt 2012).

Section 2.1 Anatomy and Functions of the Outer, Middle, and Inner Ear.

Before describing the development of the auditory ossicles and the auditory meatus, it is important to discuss the basic anatomy of the ear, which serves as the organ for hearing. The ear consists of three distinct regions that serve different functions in the process of the signal processing. The auditory meatus is housed by the external ear which consists of the pinna. The pinna contributes to the process of sound localization in the peripheral auditory system (Kollmeier 2008). The auditory meatus houses the external auditory canal to the middle ear which consists of the auditory ossicles: the malleus, incus, and stapes. The function of the auditory ossicles is to convert the vibrations of the localized sound from the pinna and auditory meatus into a signal that can be processed by the hair cells of the cochlea in the inner ear. The signal is then converted from a physical energy wave from the air to a fluid through its

interaction with the oval window.

The inner ear consists of the tympanic membrane, the cochlea, and the semicircular canals. The function of the semicircular canals is related to balance. From the inner ear, the hair cells transduce a signal to the eighth cranial nerve

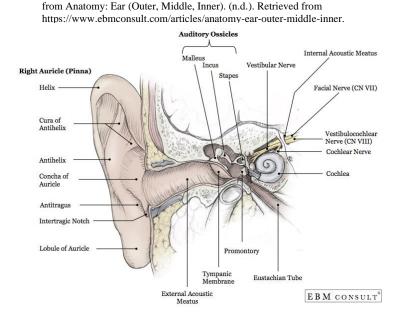


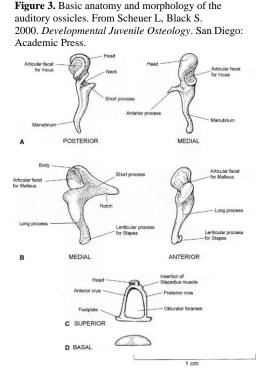
Figure 2. The anatomy of the outer, middle, and inner ear. Image taken

that integrates with the dorsal cochlear nucleus and inferior colliculus in the midbrain, then proceeds through thalamus to BA 41/42 of the temporal lobe, which is the auditory processing center. The above diagram illustrates the basic anatomy of the outer, middle, and inner ear:

Section 2.2 Development of the Auditory Ossicles and Auditory Meatus.

The soft tissues of the outer, middle, and inner ear are derived from the second pharyngeal arch, while the malleus, and incus are formed from that of the Meckel's cartilage, which is derived from the first pharyngeal arch and the stapes from Reichart's cartilage of the second pharyngeal arch (Anthwal 2015; Hill 2018). The pharyngeal arches consist of distinct layers of endoderm, ectoderm, neural crest cells, and mesoderm; these structures are some of the first boundaries that are formed during development (Graham 2001). The Meckel's cartilage is part of the jaw during the early stages of embryonic development, and in the 6th week of development the bones begin to ossify, with the anterior end forming the malleus and the posterior end of the cartilage forming the incus (Peck 1994). The manubrium, or the handle-shaped projection, of the malleus is then inserted into the tympanic membrane and the two remaining ossicles articulate with the malleus. Development of the internal and external

auditory meatus is separate from that of the auditory ossicles. The tissues of the external auditory meatus as well as the portion of the temporal bone that occupies this structure are derived from the first cleft depression of the cephalic region of the embryo between the first and second pharyngeal arches; this process begins in week 8 of development (Keith 1949; Hill 2018). The tympanic region surrounding the auditory meatus has a different center of ossification, which is located in one of the eight centers of ossification on the lateral surface of the temporal bone.



Section 2.3 Development of the Bony Labyrinth, or Otic Capsule

The bony cavities of the petrous temporal bone that houses the inner ear: the semicircular canals, the vestibule, and the cochlea is subsequently called the bony labyrinth. The bony labyrinth is derived from the otic placodes on either side of the embryonic hindbrain, and each side differentiates into superior vestibular area and an inferior cochlear area (Jeffrey & Spoor, 2004). The otic capsule in this regard passes through three distinct phases on its development into cartilage before ossification: mesenchyme condenses around the otic vesicle, the condensed mesenchyme differentiates into precartilage, and then the precartilage differentiates into true cartilage (Streeter 1917). The cochlea is typically developed by 10th week in utero and vestibule and semicircular canals by the 8th week. Although the growth rates of these particular structures of the inner ear vary, the development of the structures of the inner ear and that of the surrounding cavities is complete in the prenatal environment (Jeffery 2004).

Section 2.4 The Relationship between Auditory Morphology and Function

There are three structures that can be used for analysis that are preserved in the fossil record: the casing of the bony labyrinth with the space housing the cochlea, the auditory ossicles, and the relative size and position of the auditory meatus. The relative size of the basilar membrane in the cochlea, as well as relative size of the cochlea are negatively correlated with high frequency hearing; meaning as the size of the cochlea and basilar membrane increase the more the hearing range shifts to lower frequencies (Kirk 2009). Overall, length and distribution of basilar membrane in the cochlea compared to body size can also reveal information about auditory discrimination acuity, which would require fine-tuned discrimination of low frequency sounds or the differences between similar sounds in terms of frequency (Coleman 2009). The relative positioning, length and diameter of the external auditory meatus can reveal information about frequency ranges as well (Quam 2015). The auditory ossicles can reveal biomechanical properties related to hearing ranges and best frequencies in fossil hominids (Rosowski 1992; Coleman 2009). Intra-aural distance, which can be derived from reviewing the relative positions of the auditory meatus, can also provide evidence for limits to high frequency hearing as well as best frequency (Nummela 2017). Intraaural distance can include time differences and level differences that reflect the overall spatial positioning of the auditory meatus to different environmental sounds. The timing of auditory signals thus reveals spatial information about sounds and sound sources. Best frequency would be reflective of optimal frequency ranges for hearing. Although soft tissues in these instances are not preserved, some aspects of hearing can be reconstructed from fossil remains.

VI. Evolution of Primate Audition and Morphology

The evolution of the primate auditory system has been subject to significant change over the course of evolution, including the origins of the system in the Cenozoic era (60 mya) in dental primates (Zummela 2017). From the earliest evidence in the fossil record, the dental primates, or plesiadapiforms, are characterized by a small oval window and a short cochlea with a secondary bony lamina, which suggests good high-frequency sensitivity but relatively poor low-frequency sensitivity (Zummela 2017). The emergence of the haplorhines, nearly 55 million years ago, then occurs with changes to overall cochlear length and a reduction in the secondary bony lamina, which altered the frequency ranges for the current taxa (Zummela 2017; Ni et al. 2013). It is suggested that good low-frequency hearing was present as recently as 20 mya, while high frequency hearing is suggested to have occurred prior to that.

VII. Auditory Capacities and Morphology of Non-human Primates.

Figure 4. Morphology of the pinna of extant primates. From Coleman, M. N., & Ross, C. F. 2004. "Primate auditory diversity and its influence on hearing performance." *The Anatomical Record* 281A (1), 1123-1137. https://doi.org/10.1002/ar.a.20118.



The morphology of the auditory ossicles of extant non-human primates, in particular that of the great apes, differ from that of extant *Homo sapiens*. In African apes notably, the malleus typically has a longer overall length, a longer and narrower manubrium as well as a shorter body and more narrow neck. Great apes also exhibit a significant change from the morphology of *Homo sapiens* in the shape of incus related to its functional length. The stapes exhibits a smaller overall shape in all dimensions in African apes comparatively (Quam 2014). In regard to the bony labyrinth, the anterior and posterior semicircular canals are smaller overall in great apes,

while the lateral arc and canal tend to be larger than that of extant *Homo sapiens* (Jeffrey 2004). Compared to modern humans, great apes also possess a different positioning of the lateral canal of the vestibular system where the arc of the canal is located more coronally, shifting the vertex of the canal more laterally (Jeffrey 2004).

In addition to the auditory ossicles, the functions of the bony labyrinth and the cochlea also reveal information about auditory capacities and communication. Not only has cochlear size increased over the course of the evolution of primates, this cochlear labyrinth volume in extant primates is negatively correlated with high- and low-frequency limits of hearing. This finding suggests that there is an inverse relationship between the perceived auditory signals and that of the cochlear size, with increased size narrowing the range of hearing (Numella 2017). In addition to this, some groups including the Haplorhines have a relatively long cochlear length which is associated with low frequency sensitivity (Numella 2017).

Considering the discussion on language and prelanguage, it is important to note the evolutionary role of both the integration of the visual processing and auditory processing in non-human primates. The first distinction is that of the general sensory capacities of Old World versus New World monkeys. Old World monkeys rely primarily on olfactory communication, while New World Monkeys and great apes rely primarily on visual and auditory processing capacities for communicative purposes (Gloor 1997). While vocalizations produced by non-human primates may seem less distinct to the auditory capacities of humans, monkeys in particular show a greater sensitivity to ranges of vocalizations within their given environment (Gloor 1997).

Auditory capacities in non-human primates vary phylogenetically. Catarrhines are more sensitive to lower frequencies than the platyrrhines, while low frequency sensitivity is better in haplorhines and great apes have a reduced capacity for high sensitivity hearing (Numella 2017). The frequencies typically allocated to the optimal conditions of the ossicles, at least with in the context of chimpanzees, is 2kHz, while the optimal fundamental resonance frequency for the auditory meatus is 2.15kHz; this fundamental resonance frequency is related to the typical pitch of long distance calls in great apes (Numella 2017). These sensitivities are

related to the types of environment that these groups occupy and the types of communication utilized in their social groups (Gloor 1997). Both gesture and vocalizations, sometimes in combination, denote the messages within groups including social hierarchy, individual recognition, kinship relationships as well as information about location of threats or food within the environment (Gloor 1997).

VIII. Auditory Capacities and Morphology of extant *Homo sapiens*.

Auditory capacities in extant *Homo sapiens* begin within the intrauterine environment and continue to develop during the postnatal period. This environment facilitates hearing in the frequency range of 20-200Hz (Peck 1995). Developmental stages in the postnatal and neonatal environment include both growth to the external ear and primary ossification of the auditory ossicles. This results in an overall change to the processing of sounds in the environment including sound localization and the development of sound recognition, categorization, and discrimination which continues into the juvenile period (Peck 1995). Auditory capacities continue to vary throughout childhood: 10,000Hz at 4-5 years of age; 20,000Hz at 6-8 years of age. Hearing loss occurs at 10 years of age until adult levels are reached at 400-1000Hz (Peck 1995). Hearing in humans is most sensitive between the 2000-5000Hz range, which is the range primarily associated with spoken language (Gelfand 2016).

Considering the functional process of the auditory system, it is important to note the underlying morphology related to the functional properties of the middle ear. Although there is significant variation in the ossicles that are not related to body size, there seems to be some variation in different human populations (Kamrava 2017). Some natural variation occurs in the degree and size of ligament attachment, while some variation seems to be related to genetic variation. There also seems to be differences between modern humans and some species of African apes, including: the thickness of the malleus, thickness of the manubrium, and more

condensed manubria in the malleus. Additionally, the dimensions of the incus are the most variable across taxa, but there are some common features shared across primate species including the relative length of the short process of the incus in gorillas and modern humans. The height of the stapes is taller than in African apes and footplate length is significantly longer in humans than in other great apes (Quam 2014).

IX. Comparative Morphology and Auditory Capacities of Australopiths and Paranthropus Robustus.

While there is some controversy in the speciation of Australopiths and *Paranthropus*, for the purposes of this discussion these two groups will be considered as separate genera. It appears that morphologically these two groups share some traits related to the functional capacities of the auditory ossicles and auditory meatus. Within the context of the auditory ossicles, there is distinct phylogenetic variation exhibiting that of derived and variable traits amongst specimens exhibited in these two groups (Quam 2013). The malleus of Australopiths and *Paranthropus* exhibit derived characteristics with modern human populations, while there is variation in the presentation of the incus in *Paranthropus robustus* more towards that of chimpanzees (Quam 2015). Similarly, the footplate of the stapes in *Australopithecus africanus* is more comparable to the overall size of the footplate in modern chimpanzees. In regards to the auditory meatus, both Australopiths and *Paranthropus* exhibit an elongated auditory canal in the mediolateral plane which is intermediary between extant great apes and that of *Homo sapiens* (Quam 2013). Thus, showing that both *Australopiths* and *Paranthropus* share intermediary forms between extant great apes and that of extant *Homo sapiens*.

Estimates of auditory capacities for the purposes of language can be established for both Australopiths and *Paranthropus robustus*, expressing sensitivities between 1.5 and 3.0 kHz; the ranges for these two groups are greater than extant primates. Above 3.5kHz these groups

express a moderate sensitivity which can be estimated by the size and orientation of the auditory meatus and general size of the tympanic membrane (Quam 2015). Due to the evidence for an emphasis on high-frequency hearing, it is estimated that if prelanguage or language were present in early Hominins it would have consisted primarily of vowel sounds and high frequency consonants (Quam 2015). Given the habitat occupied by these species, this could have facilitated short range vocal communication with a hominin group (Quam, 2015).

X. Comparative morphology and auditory capacities of Early Homo: *Homo erectus* and *Homo heidelbergensis*.

To an extent, there is less information about the auditory meatus and auditory ossicles of early *Homo*, therefore a discussion of the bony labyrinth and cochlea of the inner ear becomes necessary. In *Homo erectus*, the cochlear lengths and the area of the oval window are larger than what is expected for body mass, suggesting an emphasis on low frequency sensitivities. This would have allowed for long-range communication (Braga 2015). Additionally, *Homo erectus* was the first to exhibit semicircular canal morphology more similar to the the human condition and also exhibits a bony labyrinth similar in size to that of extant *Homo sapiens*, perhaps as a result of an increased reliance on bipedalism (Spoor 1994). Because the main function of the semicircular canals is maintaining balance, it is possible that bipedalism in early hominins would have increased the likelihood for this function difference in the positioning of the canals.

Related to this is the examination of the auditory capacities of *Homo heidelbergensis*. While there is less research in regards to the auditory capacities, one study has suggested a comparison of sound power transmission curves, which model sound pressure entering the structures of the middle and inner ear. Fossil remains attributed to *Homo heidelbergensis* exhibited curves intermediate between both extant *Homo sapiens* and extant non-human

primates at the high range of 2kHz (Martinez 2008). In addition, from the morphology, available intermediate bandwidth ranges for these specimens showed a likeness to extant *Homo* sapiens, suggesting that there is derived morphology of the middle and inner ear between the two taxa (Martinez 2008).

Given the similarity to non-human primates in terms of auditory sensitivity, the intermediary stages of the bony labyrinth derived toward the human condition, and the frequency ranges exhibited by the aforementioned specimens in early *Homo*, it is possible that *Homo erectus* and also *Homo heidelbergensis* were capable of communication systems at least to the level of extant human primates, given the evidence for group formation and for the purposes of social cohesion (MacWhinney 2005). Along with the auditory capacities suggested, it wasn't until *Homo erectus* that other morphological features attributed to language also developed, including an initial flexion of the basicranium which corresponds to a partial descent of the larynx, which suggests a greater range for the production of distinct vocalizations (Lock 2004).

XI. Comparative morphology of *Homo Neanderthalensis*.

The comparative and morphological work related to *Homo neanderthalensis* is significantly more extensive than in early *Homo*. In comparing Neanderthal auditory ossicles to the auditory ossicles of extant *Homo sapiens*, the malleus has larger overall dimensions in total length and head size with a greater angle between the head of the malleus and the manubrium, and the manubrium is straighter. The incus is larger, and the process is longer and straighter with an expanded articular facet compared to extant *Homo sapiens* (Quam 2008). In contrast to this, the incus considerably deviates from the human condition in that the short process of the incus is relatively shorter and the notch of the short process is absent. The Neanderthal stapes is smaller and more asymmetrical between the anterior and posterior crus

(Quam 2008).

In relation to the bony labyrinth, the arc sizes of the anterior and posterior vertical canals are smaller in size and the posterior canal is more inferior compared to other members of the *Homo* genus (Hublin 1996). Sensory function is related to the arc size and position of the semicircular canals, while other general labyrinth shape is associated with more stereotyped cranial base morphologies (Spoor 2003). The Neanderthal morphology is distinct from morphological characteristics of both extant *Homo sapiens* and *Homo erectus*, but this group is considered to share some derived characteristics of the two taxa (Spoor 2003). Neanderthals would have had the potential for auditory capacities derived from that of extant *Homo sapiens* and *Homo erectus*. An area of research that could be further developed is that of the auditory and language capacities of Neanderthals given evidence from the archaeological and fossil records.

XII. Comparative morphology of Anatomically Modern Humans

Anatomically modern humans (AMH) show distinct morphology from that of *Homo neanderthalensis*. The auditory capacities of AMH are characterized by a reduced range in high frequency hearing while maintaining a high sensitivity to low and middle range frequencies (Stoessel 2016). The malleus exhibits a relatively short manubrium, a long body, a wide angle between the manubrium and lateral process, and an enlarged media-inferior articular facet, while the incus exhibits a wider curvature and angle between the short and long processes as each is elongated while the stapes is tall in character. The stapes also exhibits a kidney-shaped footplate which corresponds to the most derived structure of the three ossicles (Stoessel 2016). In regard to the shape of the malleus and the incus, there is a significant decrease in the lever ratio in anatomically modern humans that is more like that of extant *Homo sapiens* compared to other primates (Stoessel 2016). In regard to audition, it seems that

fossil hominids that emerged 200,000 years ago that are categorized as anatomically modern possessed hearing much like that of extant *Homo sapiens*.

Final thoughts

Analysis of intact ossicles, the bony labyrinth, and the external auditory meatus, while serving as suitable subjects for auditory modeling, have incomplete representations in the fossil record across species. While derived features can be determined through comparative work, neural computations of the auditory system based on current neuroscientific data could provide new information about the types of hearing present in other hominins. While there appears to be reorganization of some of the auditory and vestibular structures of the inner ear as early as Homo erectus, it is possible that other species could have exhibited this type of morphology as early as the Australopiths. Extensive studies of the pinna in nonhuman primate species have shed light on processes like frequency ranges, but with extinct hominins, researchers rely on the dimensions of the auditory meatus and general inter-aural distance to estimate hearing ranges in different species. A further consideration of the biomechanics of the middle and internal ear would shed more light on the issue of audition in hominins. A more complete analysis of the specimens found in the archaeological record would also be beneficial to the evolutionary framework for addressing auditory capacities. It would seem from the evidence presented in this paper that auditory capabilities have slowly evolved over the course of primate evolution into the auditory capacities that are currently present in extant *Homo sapiens* and extant primate species, suggesting overall that an emphasis on auditory capacities inferred from the fossil record might reveal new information about the origins and evolution of language.

Jenny Michlich is an undergraduate student at the University of Pittsburgh and the University of Colorado Colorado Springs where she is studying anthropology, neuroscience, and cognitive archaeology. She also is currently working in the Williamson Laboratory where she is studying the role of auditory perception in behavior. Her research interests include functional neuroanatomy, ethology, auditory-vocal system interactions, as well as speech and language evolution. She would like to express her gratitude to Professor Jeffrey Schwartz for his instruction on functional morphology and Professor Colin Allen for mentorship and for countless hours of discussions on animal behavior and cognition.

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Communication, Memory, and Social Change

Death Custom and Society Among the Lehonians

By Celia Weberg and Madeline Topor

This paper compares ethnographic and mortuary data from the village of Lehonia in Greece to better understand how inferences and expectations are made about the community's social order based on differences in the ethnographic and archaeological record. Archaeological theory is applied to this analysis to determine if the archaeological record is able to accurately reflect the living community. Lehonia was selected for this analysis because the living society exhibits a high degree of social stratification that is noticeably absent in the mortuary practices. The community is relatively egalitarian in death, so a reconstruction of the society based on archaeological evidence alone may not present an accurate picture of Lehonia. The funerary practices and related material culture are applied to various mortuary hypotheses to determine if the results accurately describe the living society.

Introduction

Ethnographic studies are not only useful for the understanding of living cultures but also for realizing how ethnographic data can be used to analyze archaeological remains. By applying archaeological theory to this data, archaeologists can begin to understand the distinction between funerary practices in a living community compared to what is visible in the archaeological record. Likewise, based on archaeology, expectations can be developed and inferences can be made about the social order. Based on this, archaeologists can determine if the archaeological record is an accurate reflection of the living community or if there are discrepancies that need to be accounted for. By analyzing the society and mortuary data of the village of Lehonia in Greece, we will apply this information to the mortuary hypotheses of Lewis Binford, Joseph Tainter, Arthur Saxe, and Lynne Goldstein. Using these theories, we will determine if the expected archaeological results correspond to what is known about the

living society.

Relevance of Lehonia

The Lehonians are perhaps most interesting because they demonstrate a relatively high degree of social stratification for rural Greek communities, but their funerary practices are comparably much more egalitarian than the rest of Greece. They have an egalitarian ideology regarding burial in the community cemetery, but they also incorporate beliefs about "acceptable" inequalities in various social categories and develop symbols to represent these complex beliefs. This was reflected in Lehonia's "old" cemetery, in use until the construction of the "new" cemetery in 1976, where a sense of equality was observable in the spatial arrangement of graves since people of all socioeconomic classes were mixed in the same space and buried together, although in individual plots (Bennett 1994, 112). However, after the government's attempt at regulation of the cemetery from 1976 to 1986, there was community backlash against the social division present in the "new" cemetery.

The community's problem with the "new" cemetery arose because of the explicit spatial divisions that violated the beliefs of what constituted acceptable symbols of inequality. Burial seems to be a means of individual and familial open expression without regulation and state control. On a larger scale, the dissatisfaction was a reaction against attempted governmental control of the community and their means of expression. After the community was able to reorganize the cemetery to its original state years later, they returned to their egalitarian practices (Bennett 1994). However, even though egalitarianism is present in the funerary practices, the living community is quite stratified, which poses interesting problems and questions to the study of Lehonia's cemetery.

The Nature of the Source Material

Our information largely comes from ethnographic studies done by Diane O'Rourke during the 1980s and 1990s (O'Rourke 2007). As an outsider, she lived in the village among the local people, observed daily life, and asked many questions. Burial and disinterment, the practice of exhuming the body and collecting the bones, were among the community rituals that she attended, and she held a special fascination with Lehonitiko burial traditions. O'Rourke occasionally references the earlier ethnography of Loring Danforth, which we have also used to a lesser extent (Danforth 1982). We have chosen to focus solely on the 1980s and 1990s since globalization and a changing economy has inspired rapid change in the current community and Lehonians are swiftly parting from the more traditional practices. We feel that this time period before the age of tourism and ski resorts reflects best on the traditional Lehonitiko practices that have only very recently begun to change to reflect a constantly urbanizing world (O'Rourke 2007, 388, 392-393).

A Cultural Overview

Lehonia is a village in the Pelion Peninsula of Greece near the larger city of Volos. During the 1980s and 1990s, the population was just over 1000 with 300-400 individual households. A majority of the citizens are Greek Orthodox Christian, but there is a smaller community of Jehovah's Witnesses that oftentimes falls outside of the majority population's traditions. Therefore, we will be largely focusing on the Greek Orthodox population. The community is patriarchal and has a village council that oversees regulation and upkeep of the village. Although the village does fall under the jurisdiction of the Greek government, it does not affect their burial traditions so we will not be referring to it here. Society is stratified with socioeconomic classes based on wealth, including an upper-upper, upper, middle, and working

class, where the upper-upper class does not interact much with the rest of the village. Lehonia has a wider class division than many other Greek villages, and this socioeconomic divide is displayed through differences in the scale of homes, clothing styles, and behaviors. It is acceptable to display wealth without feeling ashamed or guilty, and status is largely based on wealth and property ownership but also social aspects like occupational skills, education, religious practice, ties to the village, and honesty (Bennett 1994).

The economy of Lehonia is dependent on their high production of profit crops for export, which is why social classes are divided between land owners and laborers. The upper class generally consists of landowners who have enough land to require hiring the working class laborers who do not have their own land. The middle class consists of the smaller-scale landowners who have their own plots but do not have enough land to require hired laborers. Alongside agriculture, the upper-upper class also controls industries like silk manufacture, railroads, and businesses in the village. They are more likely to stay part-time in nearby Volos and conduct business outside of Lehonia. The Pelion Peninsula where Lehonia is located is mountainous but close to the Pagasitikos Gulf of the Aegean sea. It is an area of high agricultural production and dense vegetation consisting mostly of plane trees, olive trees, and pine trees. There are also many fruit orchards and nut trees, providing a bountiful harvest both in the wild and on the farms.

Historically, Lehonia has displayed a particularly high degree of socioeconomic differences for rural Greece compared to other villages, which is in sharp contrast to their cemetery, which appears to represent egalitarianism to a greater extent than many others in Greece. Prior to the construction of what is referred to as the "new" cemetery in 1976 by Bennett, community members were free to choose whichever cemetery plot they liked and

there were no fees. As a result, class was not a marker that determined spatial arrangement; instead, it was only visible in the grave markers selected. Putting wooden crosses on display next to marble monuments was a common practice in Lehonia until the new cemetery was established in 1976. In this new cemetery, concrete walkways were used to designate sections from front to back as first, second, and third class. Community complaints centered around the obvious spatial divisions within the cemetery and the strict separation into classes. The dissatisfaction was also a reaction against attempted governmental control of expression in a community that was accustomed to their established burial practices. This space remained in use for ten years until a new village council was elected in 1986 and it was reorganized. The cemetery now reflects the layout of the old cemetery, where families are able to choose any plot they want, regardless of class, and payment is based only on the type of grave marker they want and whether it is permanent or temporary (Bennett 1994).

There are not a great deal of social categories recognized within the community; instead, a select few are responsible for the organization of society. Again, class is the primary category that divides society; even though there are few divisions within the cemetery, it is acceptable to display markers of wealth through homes, clothing, and behavior. There is also a distinction between the uppermost elites and the rest of the village because the former tend to separate themselves from the community by avoiding the obligations of village life, such as holidays and weddings, and this is represented in death by their separation from the cemetery. Men and women are treated as separate social categories in life through differing responsibilities even though they are not recognized differently in burials. Finally, religion is categorized in life and death in terms of customs but does not seem to be as influential as class for either the living society or the cemetery.

Ethnographic Description of Death Customs and Related Beliefs

In Lehonia, burying your dead in the cemetery signifies membership in and commitment to the community. Interestingly, many of the upper-upper class choose to be buried in the city, not the village, because they did not act as truly committed members even if they were very economically important to the village. Due to their general absence from village life, they feel more connected to Volos and are less interested in having a modest burial in Lehonia. The rest of the upper class is typically integrated into the local cemetery. Burial in Lehonia is extraordinarily egalitarian since death is viewed as the one great equalizer, with this equality shown through mixing of the social classes throughout the cemetery and equal treatment of the sexes. Equity in death is used to criticize accumulation, excessive display, and socioeconomic pretensions in life. After all, what does money really mean when you are dead? To promote equivalence through uniformity, the funeral ritual is the same for everyone except priests who die in office, who are afforded a slightly different process that will not be discussed here. According to O'Rourke, the cemetery and community are religiously-bound to the Greek Orthodox church, so Jehovah's Witnesses are typically not buried in the Orthodox cemetery, with a few exceptions. The funerary practices are multi-staged, where disinterment signifies the end of the mourning period and symbolizes the final separation of the living and the dead a few years after the initial burial.

Funerals are generally organized by funeral offices and officiated by priests. Funeral offices are a modern innovation since traditionally the family does all of the organizing and planning themselves. Families still plan for and carry out the making of the gravesite, and professionals might construct the tomb, but the family chooses the style and scale of the monument. However, many families do still construct the tomb themselves, and women are the

main planners throughout the entire process. The disinterment ceremony involves close family and friends as well as a priest. A gravedigger is present at the funeral ceremony to help lower the coffin into the grave and is later hired again to dig up and remove the bones during the disinterment ceremony (O'Rourke 2007).

Lehonitiko funerary ceremonies and practices consist of a primary burial and later disinterment. Dissimilar from many other Greek villages, lamenting is not practiced in Lehonia since it is viewed as excessive and unnecessary. Instead, mourning begins when the church bell tolls to signify the death, followed shortly by the funeral. Funeral services are open to all and are advertised through announcements posted around the town. Guests are given sweetened boiled wheat (koliva) during the service and are treated to coffee and brandy afterward. After the funeral and reception, a post-burial meal of meat and rice is served to the immediate family of the deceased and the priest that officiated the ceremony. This uniformity in service and reception removes competition by requiring all families to provide the same funeral rites and the same meal afterward. There is not much space to introduce wealth and create a higher status practice. In between the funeral service and the meal, the casket with the body is brought to the local cemetery to be buried. There are no official family plots in the cemetery, but some families tend to use the same area over time. Additionally, individuality may be expressed through boundaries or markers around the plots, usually made of wood or stone (O'Rourke 2007). Since Lehonians are not buried alongside grave goods, the only proof of inequality in the cemetery is the difference in the materials of grave markers, which may be different scales as well. Marble is more expensive than wood and will also preserve through the ages.

One exception to the rule against grave goods is the case of unmarried individuals. If a person dies unmarried, they are buried in a wedding crown and funeral guests are given sugared

almonds as if they were at a wedding so that everyone can be buried having passed through the same stages of life. Interestingly, by making all people equal in death the Lehonians are creating a very confusing archaeological record for future archaeologists. Since only unmarried individuals are buried with grave goods, crowns no less, future interpretations may misunderstand what is happening. In an effort to make all people equal, the Lehonians have created an inequality that will be preserved in the record as long as the individuals are not disinterred.

Disinterment marks the end of the multi-staged mortuary ritual and the end of the mourning period. If the disinterment takes place in a family plot, then it may occur only when there is a new burial and the plot is needed for the newly deceased. Otherwise, disinterment typically occurs after a set period of time of 3-7 years, but always on an odd-numbered year. The ceremony is only attended by close family and friends, and the actual process varies between families. After the bones are collected, washed, and placed in a box labeled with the individual's name and dates of birth and death, they are brought to the communal ossuary. Inside the ossuary, the boxes are stacked with no thought to family plots and everyone is again seen as equal. A lamp may be left in the ossuary along with flowers, but some people in the community prefer to just keep one communal lamp and disallow any offerings. There is not a strong consensus on these things, just like the variation in the process of preparing the bones. This process and the ossuary itself are not regulated by the church and the priest has a minimal role, unlike the earlier funeral (O'Rourke 2007, 389-392).

Very few death categories are recognized within this society because of the egalitarian beliefs that drive funerary practices in the cemetery. Since the community believes that everyone should receive the same treatment in death, there are no recorded instances of

cremation or other burial practices. The funerals are fairly regulated by the Greek Orthodox religion, and disinterment is regulated by the local council and community, which also accounts for the generally standardized practices in Lehonia.

Even though the egalitarian funerary practices limit the extent to which social categories are marked in death, there are a few important distinctions made with the dead that allow some social information to be conveyed. As mentioned previously, if an unmarried community member dies, they are buried with the crown used in the wedding ceremony. This is not used to mark them specifically as unmarried; instead, the community wants everyone being buried to have gone through the same life events, therefore making them equal. Since the community is largely defined by religion, people who are not Greek Orthodox Christian will not be buried in the cemetery, meaning that one may hypothesize that everyone buried within the cemetery was part of this religious group. There have been a few burial exceptions made for Jehovah's Witnesses, but their graves are often marked by trash placed there by community members upset by this decision. Interestingly, individuality is still marked after disinterment because bones are stored in individual boxes labeled with the person's name, date of birth and death, and sometimes other personal details. Some are even locked or chained to a grave, defining each individual as being strictly separate from others (Bennett 1994).

There are also a few social categories that are not marked as obviously but that still provide significant information about Lehonia's community. Membership and involvement within the community is not marked in any way, but the presence of a burial within the cemetery indicates that they were a participating member of the group. Members that don't fully participate in the group (such as the uppermost elites) are buried separately. Social class may also be marked incidentally by grave markers, as mentioned earlier, because the marble

typically used by the upper class would be better represented in the archaeological record since the material preserves better than the wooden crosses used by the lower classes. This is not an example of explicit marking because each social group is not restricted to a certain type of grave marker; instead, the family of the deceased makes a selection based on what they are willing to pay. Sometimes, the deceased may have even made a request for a certain marker. For example, Bennett describes a situation in which a first class woman requested to be buried in a simple grave in second class to protest classification in death in the "new" cemetery. Therefore, grave markers are not a set pattern to make class-based distinctions because of the relative variability.

Correspondence of Foundational Mortuary Predictions to Lehonitiko Practices

When using Lehonia as a case study, Lewis Binford's mortuary hypothesis concerning social complexity and funerary rites is proven by the ethnographic data but disproven by the archaeological record (working under the assumption that no information about the living community is available besides what is excavated). In general, he believes that the bigger the importance of the individual, the bigger the funerary rites. (Binford 1971, 23-25) First, he posits that the complexity of the social structure of the living society will correlate with the complexity of the funerary rituals. Lehonia proves that this is a correct assumption. The living society is incredibly complex and is broken up into a variety of social classes, and these divisions are reflected in the funerary practices since the upper-upper class is treated differently and buried in a different location. Everything else is relatively egalitarian, with only a few small exceptions such as the material of the grave marker. This exception appears as significant in the archaeological record because marble will remain where wood degrades. However, it is not necessarily intended by the community to mark such differences. The main difference is

between the upper-upper class and everyone else. Due to their burial in another place and subsequent lack of appearance in the Lehonian archaeological record, their special treatment would also not be evident in the record and therefore Binford's theory would be disproven since it would appear that the more important individuals did *not* receive bigger funerary rites. This example shows the dangers of believing that the archaeological record is an exact representation of the living community.

Second, Binford proposes that in simpler societies the basic distinctions like age and sex are the primary concerns of funerary rituals, but in complex societies this truncates and the focus turns to achieved status, which simpler societies may not have (Binford 1971, 23-25). Lehonia once again proves this assumption. Achieved status is acknowledged in Lehonitiko funerary practices due to the movement of the upper-upper class outside of the community and their dependence on wealth in their burials. For everyone else, this is actively discouraged due to the belief that in death all people are equal and the egalitarian nature of the burials and disinterments hides status as much as possible. As with Binford's first hypothesis, none of this would be evident in the archaeological record due to the displacement of the wealthy people and therefore the theory is disproved here since there is no evidence of this non-egalitarian practice in comparison with the rest. Without an ethnographic record of the living community like we are able to work with, a future archaeologist would be blind to the distinctions in society and the presence of the upper-upper class.

Third, Binford hypothesizes that the higher the rank of an individual, the more people have a duty-service relation to them and the greater the funerary disruption will be (Binford 1971, 23-25). In Lehonia, all funeral ceremonies are large and well-attended no matter the status of the individual. However, more people have a duty-service relationship to the upper-

upper class and cause a greater disruption since the body needs to be taken to the city, not just to the other end of the village as with everybody else. For these other people, the privacy and small scale of the disinterment ritual is similarly uniform and does not attract a larger or smaller crowd based on the individual's status. Funerals are attended by everybody and disinterments are only attended by the immediate family. Rank does not factor into funerary disruption. Since we cannot see this disruption for the wealthy people in the archaeological record, the theory is only proven in the ethnography and disproven in the archaeology.

In an elaboration of Binford's third hypothesis, Joseph Tainter states that both the amount of corporate involvement and the degree of activity disruption will correspond positively to the amount of energy or labor expended during the mortuary process (Tainter 1975). Therefore, higher social rank will correspond with greater corporate involvement and activity disruption, resulting in greater amounts of energy expended. Energy expenditure can be measured by the size and elaborateness of burials or interment facilities (O'Shea 1984, 14-18). The case of Lehonia proves this idea ethnographically because there is some differentiation of social class within burials, and as a result it is possible to observe varying degrees of corporate involvement or energy expenditure within the mortuary practices. The use of marble or wooden grave markers may be an indicator of monetary expenditure, since the ethnographic studies have shown that this can correlate with economic class; however, archaeologically this would show some marking of rank. Also, members of the upper-upper class are buried outside of the community in the larger nearby city, which involves travel and increased energy expenditure. Everyone else receives the same burial and disinterment in one designated location. For this section of the community, there is no way to measure the degree of activity disruption. Every funeral ceremony is a large, publicly attended event that is open to all community members. As

previously discussed, the services are regular which provides no opportunity to display status through energy expenditure. Disinterment is a private family occasion regardless of the individual, so attendance is not affected by status. Overall, the archaeological record also proves this theory.

Another mortuary prediction to consider is Arthur Saxe's eighth hypothesis: "To the degree that corporate group rights to use and/or control crucial but restricted resources are attained and/or legitimized by means of lineal descent from the dead, such groups will maintain formal disposal areas for the exclusive disposal of their dead, and conversely" (Saxe 1970). Lehonia, as a corporate group, has indeed reinforced its claim to rights and surrounding resources through special disposal of the dead, this time by creating a special area for the dead both in a cemetery and in a communal ossuary. Lehonia has staked its claim upon the land, creating a boundary for its territory, and put its dead citizens into a specially-created area that is recognized by the living citizens. Lehonians can trace their ancestry through the cemetery and the ossuary as long as their relatives retain named markers, and this may give them claim to special rights as citizens if they have inhabited the same area for generations. A long claim to the area may provide economic or political benefits, and a newcomer who does not have relatives buried in the local cemetery may feel a decreased sense of belonging in the community. Burial in the local cemetery and disinterment in the local ossuary are powerful binders for membership in the community.

Lynne Goldstein builds her hypothesis of mortuary prediction based on refinements of Saxe's eighth hypothesis, which she felt unintentionally implied that cultures will ritualize some aspect of their social organization, such as by maintaining formal specialized disposal areas (O'Shea 1984, 12). She configures hypothesis eight into three separate but related sub-

hypotheses, the first part of which states that to whatever degree corporate group rights to resources are legitimized by lineal descent from the dead, these groups will regularly reaffirm the descent group and its rights. One way to achieve this is through the maintenance of a permanent, specialized, bounded area used exclusively for the disposal of the dead. The second sub-hypothesis says that if this specialized area exists, a corporate group has rights to or control over certain resources, and this control stems from either actual or traditional descent from the dead. Finally, the more structured and formal this area is, the fewer explanations of social organization there are (O'Shea 1984, 12). In this case, participating members of Lehonia make up the corporate group, and they reinforce their claims to the land and rights to resources through their establishment and use of a permanent bounded area exclusively for the burial and disinterment of the dead. This specialized area allows the corporate group to trace their ancestry and may enhance their status or sense of belonging in the community because of their generational ties. As a result, while Goldstein posits that social organization does not have to be ritualized in this way, Lehonia does in fact maintain these formalized disposal areas.

Expected Archaeological Manifestations of Lehonitiko Funerary Practices

A formally bounded specialized disposal area is maintained within Lehonia, which includes the cemetery and ossuary. This ritualization of an exclusive area specifically for the disposal and disinterment of the dead allows the Lehonians to control their rights to the land and other resources while tracing their ancestry. Some aspect of social organization is gained from this, as this indicates that there is a corporate group maintaining this area; however, the disposal area is hardly marked with any indicator of social categories, which does not help to reduce the possibilities for social organization. Gender, religion, profession, and other categories are unmarked in burials and disinterment, while class is only sometimes indicated by

the grave marker chosen. As a result, the formal disposal area indicates some level of social complexity, but the lack of other social information within limits the explanations of social organization that can be made.

It has been hypothesized that the degree of spatial separation within a disposal area may reflect the organization of the society and that the spatial relationship between individuals can represent different statuses, family groups, and other categories of social differentiation. However, the principle of equality in death within Lehonian society prohibits the previously attempted segregation by social class with designated sections for each group. There is no patterning to the positioning of the burials based on societal organization within the single formally bounded space; families select whichever plot they wish, regardless of class. In addition, there is little evidence of family groups being buried near each other (Bennett 1994, 125). Spatially, there is no evidence of status, kin, or other social markers; this holds true for the ossuary as well. After disinterment, individuals are placed wherever the family chooses and there are no indicators of differentiation of any kind.

This paper has discussed in depth the Lehonitiko beliefs of equality and uniformity in funerary rituals, so it may be expected that not many funerary distinctions are recognized. In Lehonia, the only differences explicitly recognized are religion, namely Greek Orthodox or another such as Jehovah's Witnesses, and those who die unmarried, signified through burial with the bridal crown. There are some differences that appear circumstantially, such as the wealth differences displayed through grave marker materials, but these are not intended as a distinction. In addition, members of the upper-upper class are buried outside of the community, further limiting the class distinctions displayed. Therefore, they should not be classified as funerary distinctions recognized by the community. Lehonians are very clear that all members

of the community become equal in death and should not, and indeed do not, carry special status or differences with them into the cemetery or ossuary. As for the ossuary itself, there are virtually no funerary distinctions recognized once a body is disinterred and stored. There might be some marker of individuality in a name or label on a box, but otherwise the boxes are stored at random in a uniform style that gives no indication of identity in life or differentiation.

Therefore, the funerary distinctions that would be visible to archaeological investigation are very few. Membership in the community, signified through burial in the local cemetery, may be assumed, but the missing upper-upper class will not be noticed since there would be nothing to mark them as special in Lehonia. They would be completely invisible in the Lehonian archaeological record. Greek Orthodoxy may be apparent to the living community based on cultural knowledge, but religious symbols between that group and the Jehovah's Witnesses may not be distinguishable for archaeologists. The modern litter that adorns Jehovah's Witnesses' graves is unlikely to remain in the record, and even if it did there are so few cases that it may be ignored. The wedding crowns are one of the few things that will remain a distinction and are likely to be misinterpreted due to differing cultural conceptions of "crown" and what it signifies. It is unlikely that an archaeologist will discover that the crown is actually an equalizer.

The main funerary distinction that would remain visible in the archaeological record is the scale and material of grave markers, or lack of in some cases. This implies some stratification but nothing to the extent of the actual living society. As stated before, marble will stay where wood will not, and more marble probably indicates higher cost. However, all burials must be put in context with the disinterment simultaneously taking place. The layout of the cemetery could change at any moment with the addition or removal of bodies, and

archaeological investigations are dependent on the individuals that are in the ground at a set moment in the history of the settlement. Perhaps there are no unmarried individuals buried with a crown at the time, or perhaps there are only people with wooden markers. There may never be any indication of them since disinterment does not include any goods or markers beyond the box itself. This vastly changes the visible funerary distinctions and could shift the entire interpretation of the community.

Due to the largely egalitarian nature of the cemetery, it would be logical to assume that the society was egalitarian in life as well. While this is obviously wrong in Lehonia, it is an assumption that many archaeologists could make. The differences in grave markers may indicate some simple stratification, but nothing like the actual complexity of the living community. The presence of crowns may be confused for royalty or a ruling/upper class, although in reality a wedding crown may be worn by any individual. Since the individuals buried with the crowns are mostly young, an interpretation concerning ascribed status may be made since they would have done nothing to achieve that crown. This supports the ruling/upper class theory again. However, a ruling class does not combine well with an egalitarian or simply stratified society. Archaeologists may expect to see more complexity if this is the case, which the Lehonian cemetery and ossuary lack. Therefore, the social inferences based on the archaeological manifestations would be highly confusing and contradictory. Was Lehonia egalitarian like the majority of graves suggest, or was there an upper class involved?

While these may be obvious conclusions to make in terms of analyzing the archaeological data, only positive evidence can be used to examine what was happening in the community. In the case of Lehonia, there is a lot of negative evidence that makes it unclear to determine the social structure of the community just by studying the funerary context; these

distinctions would be made extremely clear by examining the village plan and houses, for instance. All that can be determined about Lehonian society from archaeological evidence in terms of class and social differentiation is coming primarily from the grave markers and possibly the wedding crowns, which overall signals a relatively egalitarian society that has some basic level of stratification.

Conclusions

Clearly, this analysis of the archaeological manifestation would provide an incorrect picture of Lehonia. It fails to recognize the complexity of the social classes upheld through wealth, personality traits, and specialization. It also fails to acknowledge the belief of equality in death after inequality in life, leading to the conclusion that Lehonia is largely egalitarian. The community is close-knit but complex, with many of their values such as honesty remaining intangible and unidentifiable in the archaeological record. It would be extremely difficult to gain any information about an individual except for sex, age, and possibly socioeconomic status and religious affiliation if the conditions are right, and this limitation is not conducive to building a complete picture of a society. Archaeologists would lack the information needed to determine occupation, skill level or specialization, honesty, or education. Since Lehonia is not egalitarian, these statuses matter regarding social ranking and privileges in life.

The discrepancies can be accounted for by the fact that Lehonian society chooses to adopt an egalitarian approach to funerary practices that therefore affects their behavior and choices in almost every aspect of a mortuary event. This conscious choice to present themselves as having relative equality in death creates this inconsistency between the stratified, primarily gendered and class-based society and the egalitarian burials and disinterments. While many aspects of social organization would be expected archaeologically based on the structure

of Lehonian society, the actual egalitarian practices urge archaeologists to think about why and how certain interpretations are being made.

The addition of grave goods, markers of social status, or other indications of identity would be very helpful in improving the reconstruction. Currently, a reconstruction of Lehonia will be erroneous, as described above. The nature of the cemetery and ossuary are so different from the nature of the living community that only a complete shift in funerary rituals from egalitarian to stratified will create an archaeological record congruent with the living society. Grave goods or visible markers of status would allow reconstructions to access this stratification, whether it be in burials or in disinterment. Religious affiliation may also be made clearer with additions inside graves or bone boxes since grave markers are not always explicitly Greek Orthodox or otherwise. The extreme egalitarian nature of Lehonitiko funerary rituals makes it so almost any addition of archaeological data would improve the reconstruction regardless of what is added. Any additional information can make some aspects of the society become clearer in a reconstruction. Lehonia as a living society, with all of its complexities, is a society equal in death.

Celia Weberg is a senior at the University of Michigan pursuing degrees in Classical Archaeology and Anthropology, with a specialization in Mediterranean archaeology. She is interested in cultural contact and exchange, identity in the ancient world, and colonization. She is currently the Assistant Editor of the Books Review section of the American Journal of Archaeology and has excavated in Greece, Kosova, Michigan, and North Carolina.

Madeline Topor is a junior at the University of Michigan majoring in Anthropology and Classical Archaeology with a minor in Polish. She is interested in the archaeology of the Mediterranean region and has participated in excavations in Greece, Kosova, North Carolina, and Michigan. She currently works as an intern at the Museum of Anthropological Archaeology. After completing her undergraduate degree, she hopes to go to graduate school to pursue a PhD and study Mediterranean archaeology.

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Communication, Memory, and Social Change

Commodified *Shōjō*: Teenage Sex Exploitation in Post-bubble Japan By Xiaoke Yang

This study concerns enjo-kōsai, the controversial phenomenon of compensated dating between underaged schoolgirls and middle-age salary men in Japan. Originating in the 1990s, enjo-kōsai has gone through criticism, regulation, and vindication. Although it is claimed to be a form of sexual liberation among teenage girls, enjo-kōsai nonetheless follows the capital framework as it commodifies young females who participated. This essay illustrates that such a phenomenon is also a legacy of Japan's treatment of female citizens during the post-war period where the girls' mothers had been exploited by social expectation of "good wife wise mother" and governmental policies that shunned females from more career opportunities.

Enjo-kōsai, or "compensated dating," which refers to the action of middle-aged men using their money to trade for teenage girls' sex service, started to emerge as a shocking social phenomenon back in the 1990s. In order to control this new surge in teenage prostitution, both the government and Japanese society issued various acts to regulate the girls, yet it still continues into the 21st century as a branch of the prospering underground economy in Japan. Although enjo-kōsai is a relatively recent phenomenon, its roots could be traced back to the long tradition of gender segregation and female exploitation in Japanese history. Born in the post-bubble period, girls engaged in enjo-kōsai, like their elder female relatives who were pushed back into households for their biological disadvantage and traditional gender role, have again become victims of a patriarchal social structure where males are regarded as the major productive force while controlling the access to the job market. Thus, the goal of this essay is to examine the development of enjo-kōsai and to link it to the historical trend in Japan of excluding women in the workplace, which leads to the future exploitation of female bodies for

economic interests.

During the mid-1980s, Shibuya station in Tokyo emerged as a pop-culture center where wealthy high school students tried to establish their social squads while other places like Shinjuku and Roppongi had excluded them as kids. Since Shibuya had not been developed to be the fashion center as it is nowadays, these teenagers were able to transform it into their own territory, where the major population could be categorized as two groups, both of whom are from well-off upper-class families: *chiima*, the young boys who had been excluded from Shinjuku and Roppongi and formed their gangs in Shibuya to throw lavish parties, and *kogals* (*kogyaru*) whose name literally borrowed from the American slang "gal" for young girls who were usually girlfriends of the *chiima* members, which determined their original identities as another accessories of *chiima* to show off besides money.

As the *chiima*'s party culture in Shibuya became a profitable investment where kids from everywhere came to purchase their organizing service, the boys became more occupied by their business while their attention was temporarily taken away from their girlfriends, which allowed the *kogals* to enjoy the freedom to create their own subcultures instead of subordination. It soon evolved into the so-called *enjo-kōsai* game where the girls exchanged their companionship with the newly entered middle-aged salary men for financial rewards, either by money or by gifts. Consequently, the *kogals* made themselves available commodities in the market as a new genre of special service. Importantly, Mary Reisel's interviewee mentioned that *enjo-kōsai* at that time simply involved a short conversation without any sexual context (Reisel 2017). However, during the early 1990s as the *kogals* left Shibuya when they entered universities, suburban girls entered Shibuya and imitated the leftovers of *enjo-kōsai* business. Yet without a full understanding that it was supposed to be a companionship rather than sex trade, the new

generation of *kogals* changed it to be a part of sex industry that now they also provide underage prostitution in Shibuya. This unexpected shift violated the social requirement where the girls should keep their virginity, a procession of father before marriage, which subsequently "became a dream of teenagers and a nightmare for the old patriarchy especially when the bubble economy collapsed, and the country was in crisis" (Reisel 2017).

Getting further into the *enjo-kōsai* boom in the 1990s, articles about teenage girls engaging in paid sexual relations appeared to be popular first in men's magazines and *kogal* magazines with specific targets. In men's weekly magazines, schoolgirl prostitution reports with titles like "Sex Underground Frontline Report" (*Fuzoku saisentan rupo*) catered to a male readership who fetishized teenage girls in school uniforms (Reisel 2017). In *kogal* fashion magazines like the popular *Egg*, which, under its slogan "Get Wild Be Sexy!", shifted its content from outfit handbook to soft-core pornography and detailed diaries that claimed to be written by *enjo-kōsai* girls who are "having wonderful sex and control of the male world" (Reisel 2017). Both magazines delivered the same message that in this post-bubble era, that anything including schoolgirls' bodies could be part of the capitalist system, which in some sense also represented a notion of sexual liberation which was touted in capitalism as equality.

Soon after that more reporters showed interest in those girls on Shibuya street hunting for middle-aged men, and many newspapers, scholarly articles and interviews focusing on *enjo-kōsai* as a new social topic. The data chart [see the attention shift on *enjo-kōsai* in the histogram in Figure 1] of The Complete Database for Japanese Magazine and Periodicals (*zasaku purasu*) shows that it achieved a peak in 1997-1998 and has remained a topic even into the 2010s. A direct consequence of this public concern was that more girls started to participate in this industry since they recognized *enjo-kōsai* as a fashionable declaration of a new generation of

females, who "were simultaneously social and cultural subjects moulded by, and at times willingly embodying, the symbolic discussions about them" (Kinsella 2012). *Enjo-kōsai* became such a problem for the Japanese government that in 1999 it issued the *Act on Punishment of Activities Relating to Child Prostitution and Child Pornography, and the Protection of Children*, which classified children as citizens under eighteen years old and prohibited their engagement in any sort of sex-related industry.

In this act, together with the *Penal Code of Japan*, obscenities with the underage child include any sexual intercourse or sexual actions by means of threat, temptation or, deceit, while it also prohibits the release of any child-involved pornographic products. On the one hand, the Japanese government wanted to use legal means to suppress the growing economy of *enjo-kōsai* that had been gradually growing out of their control. On the other hand, this act was also designed to implant the idea of morality and self-respect among the teenagers who might be misled (Nishita and Hashizume 2019). Conservative members of the National Diet and police further argued that a stronger restriction was needed, so that in 2000, the *New Youth Act* requested that

juvenile offenders between the ages of fourteen and twenty would now be sent to criminal court (*keiji saibansho*) rather than family court (*katei saibansho*), effectively lowering the age of criminal liability from sixteen to fourteen (Kinsella 2012).

This directly set an undoubted limitation over the *enjo-kōsai* girls. The National Police Agency of Japan also conducted a survey among related girls to investigate their motivations [See the 2017 survey on juvenile delinquents' result in Figure 2].

The chart demonstrates that economic need is at the top for 29.6%, which is 7% more than the second major reason, "Thinking the client is gentle and wanting to do so." Mostly coming from middle-class families, girls involved in *enjo-kōsai* should have enough money for

their daily expenses, and their motivation is not about needs, but luxuries. As Ueno Chizuko points out in her analysis, the desire for superfluous excess is related to "a necessity to catch up with peers with a fear of losing their approval, a conformist pressure shared among young when they cannot establish their group identity" (Ueno 2003). As luxury consumption has become popular among schoolgirls, those from middle-class backgrounds needed extra money to afford the clothing and handbags that their friends from upper-class families had. It could be traced back to the earlier period while taking over the enjo-kōsai business after its precursors entered the higher education system, the coming suburban kogals tried to fully embrace the luxurious subculture in the Shibuya era where teenagers from rich families could afford high-priced merchandise. Thus, *enjo-kōsai* in a way became a crucial and profitable source for the suburban schoolgirls to keep up with the escalation consumerism. On the other hand, the rising needs of schoolgirls for luxury goods provide an enormous profitable market that has potentially benefited the post-bubble economy in Japan. Together with the luxury industry, the underground economy prospered, such as telephone clubs used to arrange compensated dating and internet cafés centered on the sex trade.

As another significant example of derived industry, "bloomer sailor shops" (burusera mise), which are special stores selling used schoolgirl uniforms and underwear, appeared in Shibuya district and fueled the underground economy with huge profits. In this new second-hand industry, schoolgirls can easily sell their used clothing with fair prices for quick money, while the store owners, in turn, would resell them at a significant markup to adult male clients. From an ongoing bloomer sailor shop website in Shibuya called Rope, uniforms, bras, and panties are carefully categorized by length, biological leftover, and owner's age or occupation [See Figure 3 for an example price list of Rope]. A full set of used high school uniforms would

be 13000 yen (about 118.66 dollars), and a set of used jumper-suits with a blouse would be 7000 yen (about 63.90 dollars). The longer the underwear went unwashed, the higher the price, so that sometimes two extra days would increase the original 7000 yen to 10000 yen (about 91.28 dollars).

One of the high-demand commodities at *Rope* is the high school girl full-set with the remnant of body fluid after its previous owner had masturbation with extra-size vibrators, which would be a bonus erotic imagination for the buyers—it costs 32000 yen (about 292.1 dollars) which is at the top price of its list. Noticeably, all high-demand products sold at *Rope* are specifically mentioned to come with actual photos of girls using them, which would sometimes include pornographic images of genital areas—various photos are exhibited on *Rope*'s official website with females in soft-core pornographic poses, while *Rope* avoids showing any high school girl's photo on its webpage to avoid violating the law. Another way to prove the "authenticity" of products would be the schoolgirls taking their clothes off in front of the clients and handing them over. Under such circumstances, clients are permitted to record the processes even if the sellers are still under 18-year-old. Some bloom sailor stores would also arrange appointments between young sellers and their male clients, which has become another hotbed of teenage prostitution.

Prostitution in Japan had been a gray field that somehow greatly supported the national economy by exploitation of female bodies. In the late 18th century, places like Echigo were famous for prostitution, and selling children into brothels had been a widespread practice in the countryside (Stanley 2012). The sex industry in early modern Japan also functioned as part of globalizing economy when thousands of Japanese women were relocated in the labor market as commodities into South-East and East Asia (Mihalopoulos 2011). After the 1868 Meiji

Restoration, the concept of adolescence and virginity were first introduced to Japan and underage girls with their untouched bodies became legally prohibited objects in the sex industry, decreasing the former profits of traditional brothels, which had welcomed teenage girls who were sexually mature (Ueno 2003).

The emergence of *enjo-kōsai* in 1990 accidentally filled in such a gap with its schoolgirl providers and even became more profitable than before with teenage girls who are now sacred resources in the market. According to the calculation done with data collected by the National Police Agency from Internet chat rooms, the value of the *enjo-kōsai* market was about 34.55 billion yen to 43.18 billion yen in 1990 and grew to about 50.21 billion yen to 62.77 billion yen in 2000 [See the trends in the *enjo-kōsai* market in Figure 4]. (Takashi 2007).

It seems that with its huge profit, *enjo-kōsai* strongly helped the recovery of the Japanese economy after its bubble economy collapsed in 1990. However, economic pull might not be the single factor of *enjo-kōsai*'s flourishing. It is necessary to point out that the news reports on *enjo-kōsai* are largely based on the account of interviewees participating in the business. In another word, the records might not be reliable since there have been possibilities where the *kogals*, in order to get rid of continuous interviews, tend to give answers that would become media blockbusters (Kinsella 2012). Returning to the social unrest in the 1990s with a vast male audience who showed more desire instead of concern about the situation, the rise of *enjo-kōsai* actually reflected the competition of gender power between Japanese men and women. From the exposure on newspapers and magazines, the schoolgirls unconsciously attain a gateway to express their ideas that are usually ignored in a male-dominant society, which

¹Kinsella here mentions that there are certain elements which suggest that girls "were aware of the type of answers that they believed their interlocutors would be pleased to hear".

encountered severe counterattack from the opposite sex who regards the business as a challenge to the custom they established within the Confucianism value, which requires the female to be limited in the households as *good wife*, *wise mother*. One example would be the previously mentioned *New Youth Act* issued in 2000, which targeted the teenagers whose moralities and world views were not yet fully developed. The implication of this act is that the girls should stay with their families instead of showing up in public since they could not take full responsibility for their actions so far.

Unlike the general assumption, Japanese women were actually driven from their workplace back to their families during the development of Japan's economy (Ochiai 1997). In the Tokugawa period, females in women's quarters of daimyo's court were able to be hired as family messengers, entertainers, and even sexual service providers (Molony *et al.* 2016). In the "Great Learning for women" (Onna Daigaku 1716), popularized in Edo period, women were specifically mentioned as "not fit to raise children since they tend to be carried away by their love," which is different from the government promoted female responsibility as mother, thus giving them more freedom from household and child-caring responsibilities (Tokuhiro 2011). In fact, even into early modern Japan, the practice of other relatives like aunts or mothers-in-law instead of the biological mothers to take care of children was still widespread.

After the Meiji Restoration, Confucianism became a national doctrine to impose the ideology of loyalty, and women, under such a context, were educated to be good wives and wise mothers in order to prepare for serving their families and state (Ochiai and Johshita 2014). The perfect female figure in Japan is usually called *Yamato Nadeshiko*, who strictly follows the Confucianism doctrine of being humble, virtuous, polite, honest, faithful, etc. Though Confucian practice was not as widespread as compared to its neighbors, i.e. China and Korea,

Japan still focused on imposing gender differentiation in social roles that woman at this period should not only fulfill the familial expectation as reproducer and baby-sitter but also participate in the mass production, which, during the early modernization, was mainly textile mills that had been one of the major merchandise in Japan. On the contrary, their counterparts only need to take the role as breadwinner for the family that men usually did not need to pay much attention to family affairs.

During the early industrialization period, women usually married into households engaging in farming and the handicraft industry. Women were required to participate in the family industry as well as housework in this economic structure where families functioned as production units (Tokuhiro 2011). For example, the Meiji era textile factories largely recruited female workers from rural areas to fuel the expansion with cheap labor. The government also encouraged women to both reproduce and to participate in industrial labor (Tokuhiro 2011).

Yet, with the rapid growth of the economy and industrialization, the major labor force in Japan shifted from textile workers to company salarymen and the distinction between household and workplace became sharper. In such a situation, it became harder for women to take care of their children at the same time (Tokuhiro 2011). From the data given by Statistics Bureau of Management and Coordination Agency, the rate of female participation in the workplace, the rate of women aged between 25-29, which is the marriage time, shows a declining pattern as the trough gets deeper in Group A-C [See Figure 5 for the M-shaped curve of age-specific female labor force participation rates in Japan].

In 1955, the prime minister of Japan, Hatoyama Ichirō, openly supported the nationwide promotion of "New Life Movement Association" (*shin seikatsu undō kyōdai*) which had been practiced in previous two years in major corporations such as Nippon Kōkan, the second-

largest steelmaker at that time (Gorden 1997). The original goal of the New Life Movement Association was to regulate housewives' welfare in order to help their husbands to work better and worry less about their households, which would elevate company productivity. Two elements of this movement were "rationalization" and "democratization", which aimed to promote a modernized family structure and broaden women's leisure activities as housewives (Gorden 1997). The New Life Movement indeed helped to initiate the postwar capital growth through higher productivity and domestic consumption needs which were triggered by new family structure (Gorden 1997).

Hatoyama's successor, Nakasone Yasuhiro, led his administration to promulgate the Ordinance for the Enforcement of the Act on Ensuring Equal Opportunities for and Treatment of Men and Women in Employment (1986), later the National Pension No.3 Insured Persons System (1986), which decreased the insurance fee of housewives. Together with the marital tax deduction (1987), Nakasone's policy was actually another gender segregation to tempt more women with the benefit of becoming housewives while the administration covered it with the sugar coat of gender equality law (Ochiai and Johshita 2014). In his one of his official statements, Nakasone said in public:

Childbirth is a women's privilege. Accordingly, this special work that women perform must be respected. Since they have this special work to do, compared with men they are not as able to give complete attention to other work. So, it would be harsh to women if we tell them to do every kind of job in various fields (Ochiai and Johshita 2014).

From this speech, it is clear that Nakasone, though he issued the Equal Employment Opportunity Law, was indeed pushing forward the "Good Wife, Wise Mother" ideology based on biological discrimination that women's reproductive function would affect performance in the workplace with maternity leaves and home care issues.

The reason to illustrate the historical trend of women's treatment in Japan, especially that

of married women during the postwar period, was that the years of administrations of Hatoyama and Nakasone fall between mid-1950 to late 1980. This was the period when *enjo-kōsai* girls' mothers were born. It was not a coincidence seeing the gradually worsening situations of their mothers and married female relatives that the teenage *kogals* born in the 1980s, angered by the male-oriented reality, decided to do something against the patriarchal orthodoxy that tried to claim the same authority over them.

Moreover, as Hayami Yukiko detected in her observation, while schoolgirls' participation in sex industry could be regarded as a revenge toward their dominant fathers, who accordingly have the authority over their bodies before the marriage (after which the authority is transferred to the spouses), it is also "a projection of the sexual desire of their frustrated mother" (Yukiko 1997). Back into the Edo Period where prostitution was controlled within the region called Yoshiwara, which is limited to male customers, a split between sexual desire represented by prostitutes and eligible mothers and daughters had been formed that an ideal lady in a household should be shunned from expressing their carnal needs, which would stigmatize them as licentious beings. Though Yoshiwara no longer existed in modern Japan, the boundary it created has internalized to be a psychological barrier where the Japanese society still understands that married females should be asexual and fully focus on the family affairs. To another extent, a guileless girl from a well-educated family, preferably a virgin whose body is submitted to her biological creator (the father) and her future husband, should not be sexually active, otherwise she would degrade herself as those licentious prostitutes in Yoshiwara. From this perspective, *enjo-kōsai* serves as both a product of failed sexual satisfaction in marriage but also a form of counterattack to take the control of the body back.

Besides, though the laws on gender equality in the labor market had been issued, women

still suffer from discrimination and limitation in occupations due to their biological "defects." Also, when married mothers attempt to go back to the labor market, most of them could only serve in part-time jobs. Prostitution, in the eyes of kogals who are about to enter the labor market soon after graduating from universities, would be a stable source of income while it also serves as a feminist counterattack which challenges the social doctrine of being virtuous women. For the involved *kogals*, bloomer sailor business, together with *enjo-kōsai*, should not be recognized as exploitations of their bodies but a gateway to sexual-liberation and furthermore, gender-liberation. During their long period education under gender segregation system and the tabooed pre-adulthood or pre-marriage sex in family traditions, Japanese schoolgirls gradually grow curious about sex and moreover rebel psychologically which is common during adolescence (Ueno 2003). The practice of *enjo-kōsai* in some sense brings the authority over a girl's own body back to herself that she could determine how to deal with it, which is a challenge to the parents who nominally hold the possession of their daughter's body. When schoolgirls get paid by middle-age salarymen, the money they earn proves their social value as desired commodities and allows them relative economic independence from their parents (Ueno 2003). On the other side, a certain kind of satisfaction is brought by *enjo-kōsai* as a profitable "occupation" unlike the dull, unpaid life of a housewife that gives them an exit to release their pressure for the future by already making a profitable living themselves in the market.

However, it is of great necessity to admit that as a self-determined revolt, *enjo-kōsai* actually falls into the trap of male consumption, especially the audience of school uniform fetishism and *lolicon* which has a special interest in underaged girls. Like the description of Nabokov's well-known novel *Lolita*, little girls become the objects of the elder male's sexual

imagination and related business after *enjo-kōsai* emerged to cater to this underground market. Besides exposing themselves to the danger of unrestrained sexual labor, *kogals* who take part in *enjo-kōsai* business are also troubled by sexually transmitted diseases and early-age pregnancy. *Enjo-kōsai* inevitably becomes a failed attempt to free girls from patriarchal domination but on the contrary pushes them forward into this system with misunderstandings, while all consequences are taken by themselves.

Entering the 2010s when Japan is no longer bothered by the problem of post-bubble low economic growth, enjo-kōsai still exists in black markets which have extended its range to elementary schoolgirls in recent years. Stores like Rope, which flirts with the baseline of regulation, also safely run under the permission of the Tokyo Public Safety Committee as a second-hand store. With the development of the Internet, enjo-kōsai evolved into an SNSrelated (Social Networking Site) business, and the former telephone clubs were no longer used. Instead, dating sites and social apps like Twitter became a hotbed of teenage prostitution, which is now euphemistically referred as enkō, an abbreviation for enjo-kōsai. Another failed feminist experiment is the reversed male compensated dating (gyaku enjo-kōsai) which refers to young male students who voluntarily offer sexual services to older women. Nominally, the existence of gyaku enjo-kōsai represents a feminist call to commodify male bodies as a counterattack to the long-existing female prostitution system by creating so-called gender equality in the sex industry. However, the practice of gyaku enjo-kōsai is essentially a mimetic form of the maleoriented sex industry that welcomed another profitable group of male students under gender exploitation, which is definitely not resonated with in the pursuit of gender equality and freedom.

How Japanese schoolgirls become part of the consumption system as valuable

commodities in a false belief to weaponize themselves by prostitution to break the social restraints imposed could be explained by the historical transition of *enjo-kōsai* business from companionship to underage prostitution. However, it also brings in more confusion and suspicion on the capital system behind the *enjo-kōsai* business which possibly is just an epitome of a larger iceberg of exploitation of female bodies. Besides the traditional expectation of good wife wise mother on females together with the government issued policies that has fettered them inside the households, the murky attitudes of police and other institutions toward the dating websites remains questionable though a regulation over underage prostitution information on these websites had been issued in 2003. There are male-written internet blogs accessible easily by keywords like enjo-kōsai through Google. Here people share their experience and skills to find underaged high school and middle school girls (JK) for sex services while elementary school students (JS) are included gradually into this system. The new generation of kogals in the 21st century, while struggling for their gender equality in a still patriarchal society of Japan, might come to the same dead end of the exploiting capitalist market in this male-dominated society.

Appendix

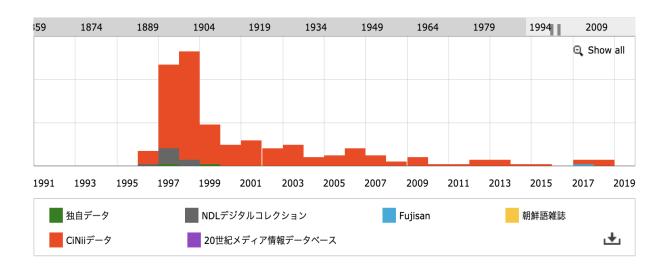


Figure 1: The volume of articles containing enjo-kōsai in their content between 1995 and 2019.

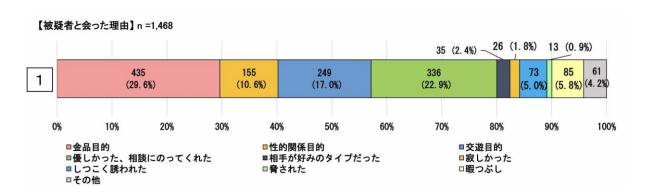


Figure 2: 2017 Survey Results on Enjo-kōsai motivations.

H–1 パンティ&ブラジャースリップ(3日着用)	17,000円
H–2 パンティ&ブラジャー・キャミソール(3日着用)	15,000円
H-3 パンティ&ブラジャー(1日着用)	7,000円
H-4 パンティ&ブラジャー(3日着用)	10,000円
H-5 パンティ&パンスト(1日着用)	6,000円
H-6 パンティ&パンスト(3日着用)	8,000円
H-7 オシッコパンティ	7,000円
H-8 くい込みパンティ(3日着用)	6,000円
H-9 パンスト(3日着用)	5,000円

Figure 3: Panties and bras are priced according to how long they have been used.

Xiaoke Yang is a graduating senior of the Department of East Asian Studies at New York University with a minor in History. Her field of interest is in the historical interaction between China and Japan in the ancient period, while she has also done some research on Japan in the modern period. This essay was a thesis from a graduate class she took on the history of Japan's capitalism.

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