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TABLE OF CONTENTS

Dealing with Disability, Gender Identity, and Stereotypes:

An Autoethnography of Studying Abroad in Britain

By Alex Ai

University of London

Page 6

Boom and Bust in Roman Antiquity: An Environmental Archaeological Explanation of
the Rise and Fall of Rome

By Dylan Davis

Binghamton University

Page 26

Inside the Rink: Where Common Assault is not Criminal

By Kelsey Fenner

Binghamton University

Page 48

Narrative as a Tool

By Jenna Hendrick

Binghamton University

Page 57

Status and Volunteering Policing Through Political Oratory and Social Life Amongst a
First Aiders Group in Beckton, East London, UK

By Giuseppe Innamorato

University of East London

Page 70

Positional and Postural Behavior of Black-handed Spider Monkey, *Ateles geoffroyi*, Osa
Peninsula, Costa Rica

By Grace Showalter

Indiana University

Page 87

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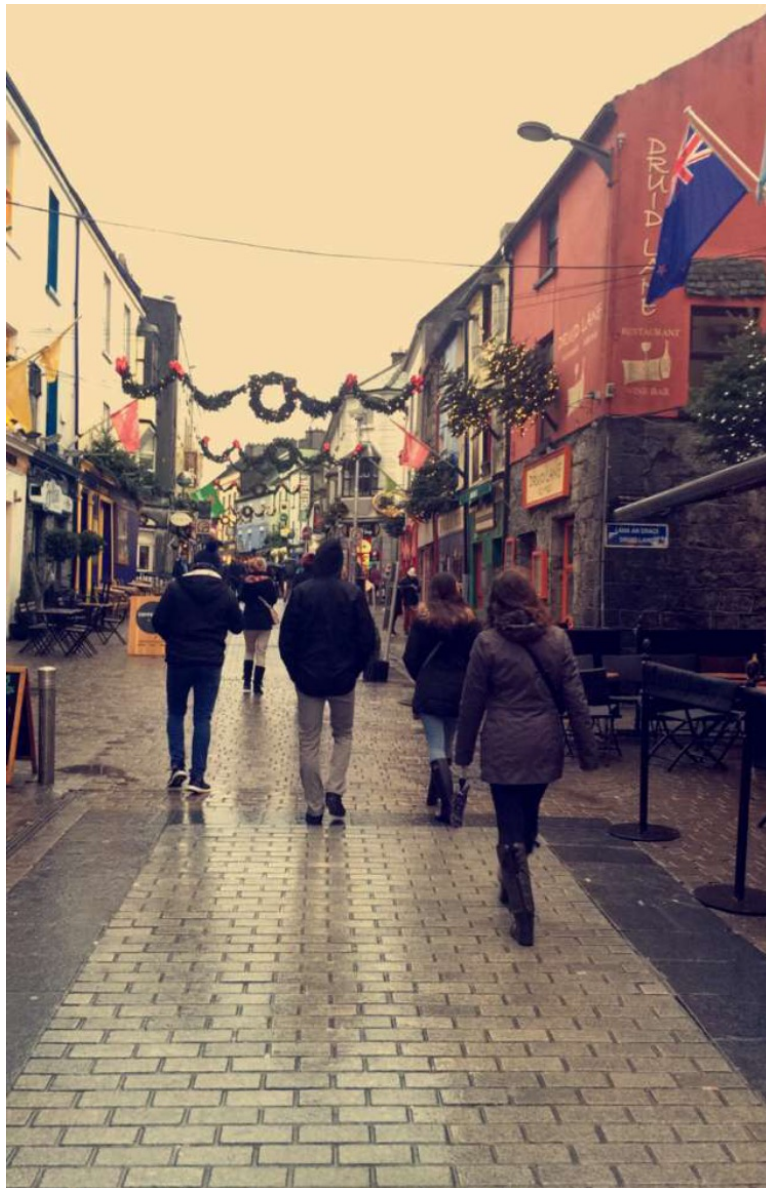
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**Dealing with Disability, Gender Identity, and Stereotypes:
An Autoethnography of Studying Abroad in Britain
By Alex Ai**

Abstract

I will explore my experience of coming from Shanghai to Williamtown (a fictitious name for a city in England) as a disabled student more than one year ago. I tried to make sense of my identity as disabled, which led me to inquire into my gender identity, as well. Negotiating my identities, I met with various stereotypes. I made use of some stereotypes and avoided others. In the end, my medical condition came to be under considerable control, but it left me quite changed. Intertwined with these personal experiences is my thinking from an anthropological perspective. Throughout the paper, I question fieldworkers' fetishism of the 'local language', tentatively explain the relationship between British humor and British class system, and investigate how in conversations a speaker may acquire a 'safe margin of deniability' through quotations. Also, I suggest how two textualized figures from China and England, Se Kong and Joseph Merrick, may be structurally opposed to each other, as well as a potential problem of identity politics.

'What is it for?' a smiling flight attendant asked in Chinese when I happened to walk along the cabin during my flight from Shanghai to Williamtown¹ in September, 2014, three days before my academic year would start at College A.. The colleague next to her looked at me and smiled as well, appearing eager to know the answer. My pair of strange goggles was the cause of their

¹ A fictitious name for a city in England. Identifiable information such as names, time and places in this article has been either omitted or altered. The author is also writing with a pseudonym.

question. I felt slightly uneasy, but was convinced that they were lovely people, just curious. I answered in Chinese, 'They are medical goggles. For medical reasons.' The flight attendant responded admiringly in a half joking way, 'Medical! So high-class (*gaoji*)!' I presented a smile and walked away.

In order to make sense of this conversation and why I emphasized the language where it took place, some explanations are needed. Six months before, in March, I caught severe dry eyes, which left me visually challenged. 'Dry eyes' simply means that my eyes did not produce enough natural lubricants (i.e. tears) by themselves, and with every blink my eyelids brazed my cornea. Because of the brazing, I couldn't keep my eyes open for more than a few minutes without leaving the cornea scratched. The only thing I could do to relieve my symptoms was to apply lubricating eye drops every few seconds, which in most occasions only had a theoretical possibility. My strange pair of goggles was a desperate attempt to improve my condition, but had quite marginal success. They were formally known as 'moisture chamber glasses,' and their structure was basically the same as swimming goggles: they enclosed the area around the eyes and prevented the tiny amount of water in them from escaping by vaporization. So the flight attendant's question was not without reason; she saw someone walking around on the plane with a pair of swimming goggles, so she wanted to ask.

Now let us focus on the language. The whole conversation took place between two native Chinese speakers, but using the Chinese expression for 'medical' (*yi xue*) in this context would sound by no means natural to anyone who speaks Chinese. A more native way would be to say something like 'they are used to cure disease(s)' (*zhe shi yong lai zhi bing de*). The word 'medical' in Chinese sounded like a word imported from English, used in a foreign way of speaking. Indeed, I was thinking about the English word 'medical' when saying it, and my

sentence might have sounded to them like a product of Google translation- rather rigid and odd. I believe when the flight attendant said 'high-class', she meant the same thing an English person would mean when they say adding some French words in one's speech might sound a bit 'high-class'. I smiled, because I felt that though she did not understand me, she bore no ill will. Why did I not use the more native way of speaking when talking about my condition? At that time, I felt more comfortable talking about it in English than in Chinese. If I had to use Chinese, I preferred to use it in a less native way. One reason for this might be that my condition left me with some unpleasant memories in China, which I do not intend to account here. As a result, as long as it was possible, I avoided talking about it in Chinese, which would be a reminder of that whole set of experiences and atmosphere.

When the plane from Shanghai to Williamtown was a threshold space, my code-mixing produced a liminal language, which seemed to correspond to such spatial liminality on a semiotic level. While it may be tempting to perceive this as my somewhat mechanistic 'reflection' of or even 'impregnation' by such spatial liminality, I prefer to understand this as my 'sensory attunement' (Novellino 2009:757). That is, I did not feel my agency was taken over by the space, or that I was involuntarily forced into this state of liminality. Rather, the heterogeneity of flight passengers in this threshold space may have allowed me to have some freedom not to speak a language in its standard form without considerable social penalty. I myself attuned to such spatial liminality and made use of this freedom.

In her provocatively titled book *On Not Speaking Chinese: Living between Asia and the West*, Ien Ang (2001:36) famously stated: 'In short, if I am inescapably Chinese by *descent*, I am only sometimes Chinese by *consent*. When and how is a matter of politics.' Being an Indonesia-born, Netherland-educated and Australia-based scholar, Ang is a liminal figure and constant 'outsider'

in different places. In line with her statement whether to speak a certain language, such as Chinese, on a certain occasion may entail a conscious political choice. All too familiar with their liminal status, just like Ien Ang, however, anthropologists appear not very willing to affirm, exploit or even celebrate their liminality in Ang's sense. Following the Malinowskian tradition, when in the field, ideally ethnographers are supposed to speak the 'local tongue' every minute. However, this supposition seems not always problematized in the first place. Let us take the English-based Western academia as an example: outside of majority English speaking countries, when the 'locals' happen to mix some English words in their speech, Western anthropologists tend to be quite happy to jot that down (usually in the parentheses or footnotes) when quoting them in their ethnographies. But in these same works it is usually hard to see the anthropologists quoting themselves using English. After maybe a page on transliteration and an introduction that predictably recounts the initial difficulty of learning the local language, in the body of the book it may often remain quite vague what language the anthropologist is actually using in a conversation that gets quoted, though it is usually presumed that it is the local tongue. If it is an active political choice to choose languages depending on occasion, then the anthropologists may have been deprived of their political agency in this aspect to some extent, because they may not consider it justifiable to speak anything other than the local tongue in the field. Or if they actually used such agency, perhaps they did not feel it was legitimate enough to talk about in their publications.

It may be argued that rather than constantly talking about 'humbling' themselves to acquire and digest information from the locals, the anthropologists may need to advocate for a genuinely more *equal* dialogical relationship with their subjects. This may entail legitimizing the researchers' political agency to actively choose languages in various contexts in order to balance

the power relations between themselves and the ethnographic subjects. A researcher is not always more powerful than the research participants. Why? Including, but not only in the English-based Western academia, anthropologists, just like the 'locals', are lively people from different backgrounds with different stories. For example, an Israeli female scholar, Yassour-Borochowitz (2012), documented how she was viewed as a sex object by some men from northern Israel who she interviewed when writing her Ph.D. thesis (published in Hebrew). One of them openly proclaimed, 'I'm prepared to be interviewed only if she's got big boobs' (Yassour-Borochowitz 2012:407). There can be plenty of reasons an anthropologist, just like a 'local', would sometimes choose to not use the 'pure' local language. The crudest example from my experience as mentioned above: when talking about something in the local tongue upsets the anthropologist, are they still expected to use the local language? Possibly not, because a researcher's well-being is not always less important than the research participants' (Ellis 2007:24). Another example would be that using a foreign language may remind research participants of the anthropologist's 'outsider' identity, which can sometimes effectively get the anthropologist out of some immediate troubles, including unpleasant intimate inquiries.

In light of this possibly more equal dialogical relationship based on anthropologists' individual political agency to choose languages, the fetishism of the local tongue in ethnographic studies may be in line with the implicit presumption that anthropologists work to extract information from the locals. This presumption is both colonial-sounding and strikingly reminiscent of the 'humbler' anthropology of today. Some logic behind it remains: the locals may seem to have always been viewed as objects of knowledge to some extent in a Foucauldian sense (Foucault 1977) and now sources of radically different 'ontologies' for certain anthropologists such as Eduardo Batalha Viveiros de Castro and Martin Holbraad (Cepek in press). The 'humbler'

anthropologists of today may try to extract more emic information in a nicer way, and take it more 'seriously', as how the ontologists would put it (Cepek in press), but still under a similar institutional context which makes information extraction a professional duty for them. As workers in the field, ethnographers may be implicitly compelled to appear to be always using the local tongue as their professional means of interrogation. There is a risk that between the locals and some career-oriented anthropologists, a relation of production may thus be encouraged which may be largely exploitative. Contrary to this, if we could legitimize anthropologists' individual political agency to choose languages in the field, not only may there be a more equal relationship encouraged in research, the ethnographers may also become more humanized people who love, hate and can be vulnerable, and with whom it is possible to have a genuinely interpersonal dialogue, not a dialogue aimed at professional ends.

When I used my political agency and chose the word 'medical' to talk to the two flight attendants, they appeared to have not really understood what I was saying, because I was not using the correct local language. When I used the English word to the students I met at College A, they responded in various ways, but I was sure that they all understood me. Some responded cheerfully, 'You look like a pop star!' Some said drily and uninterestedly, 'Cool!' Some just nodded, while others inquired, 'May I ask what medical reason?' I was a bit surprised in hearing the question, as I imagined the supposedly private and sensitive nature of medical conditions in the Western culture would prevent anyone from venturing to ask it. But as a newcomer who did not have practical knowledge about how the Western culture worked, with subdued surprise, I told them 'dry eyes'. Some asked with pity: 'Do you have to wear these glasses all your life?' I said I was unsure, which was true. It may have been considered 'normal' for me to feel slightly

offended by the inquisitors' attitude, but back then I had such difficulty coping with my condition that I even pitied myself and doubted my right to feel offended.

I tried to legitimize my identity by articulating my condition in a way that put me in a stereotypical category of 'eccentric people in the West'. I lived in a student accommodation, and when I moved in on the first day I met a group of students on the same floor. They were having a party. After introductions, they unexpectedly asked me to tell a 'fun fact' about myself. If I had not still remembered reading one article several months before that vaguely mentioned the trope of telling 'fun facts' as an icebreaking activity in the West, I would not have any idea what was going on. I pretended to know the activity of fun-fact-telling well and quickly said in a cheerful tone: 'Though I wear this pair of weird glasses, I don't think I am weird, because I've seen so many weird people in Williamtown!' Till now I still think it qualified as quite a good and witty 'fun fact', given that I had almost never heard of fun-fact-telling before and was not very good at English at the time. Of course, I had not seen any 'weird people' in Williamtown before I said that, because I could not really see properly. I made it up, as I had heard from everyone I knew in China, including my parents, that there were many eccentric people in the West, and Western people somehow took unhealthy pride in it. Therefore, 'eccentric people in the West' sounded to me like a legitimate and positive category where I could potentially situate myself because of my condition and goggles. My answer was met with cheering.

An icebreaking activity may be regarded as an initiation ritual. I understand the above event not as a lifeless marker for a transition from an outsider to an insider, but a 'transformational' experience for initiates, as argued by Heald (1999:46). More specifically, Niehaus (2013:53) summarized Heald's point to be that initiation rituals may aim at 'battle-proofing', such as 'enacting situations of danger' to desensitize the initiates of 'fear'. Obviously, at College A one

didn't need to prepare for the danger of hand-to-hand combat, but I suppose such fun-fact-telling might similarly enact a certain situation, where witty talks were immediately needed to produce laughter. Such laughter provoking may have some specific meanings in Britain. In a study in West Midlands in the 1970s, Paul Willis (1977:29-33) documented the British working class' 'lad culture', in which the ability to provoke a 'laff' was of 'extraordinary importance'; it marked a person as 'one of the lads'. To provoke a 'laff' a lad mocked others (which is called a 'pisstake' in British English), especially teachers or 'good students' (derogatorily called 'ear'oles'). When in the formal education system, one used their intelligence in schooling to gain officially recognized cultural capital, the informal lad culture expected the lads to use their wits to provoke 'laffs' in a cynical way, which might be understood as an alternative form of cultural capital. This 'laff' culture in the British working class is enduring and widespread, as confirmed by various following papers (e.g. Collinson 1988; Back 1994; Willis 2010:16).

College A, according to the British class system, could by no means be classified as 'working class', and those who could be admitted to it were probably the so-called 'good students' who did well at school. However, given the evident dislike for poshness in British popular culture and the especially leftist, egalitarian ideology in colleges, these students' fun-fact-telling might be their way to 'act common, act laddish'. How? By provoking laughter in a way slightly different from the lads, but heavily conditioned by the lad culture. While the lads mocked others, fun-fact-telling required one to make fun of themselves, which may be due to the understandable reason that this icebreaker was meant to promote rapports in a college context. Besides that, one may speculate that another reason for this change of mocking target might be that the students at College A were aware of their identity as the relatively posh 'good students', who were exactly

the kind of people to be mocked by anyone identifying with the lads. Therefore, directing mockery to oneself may seem a logical thing to do at College A.

If this argument could go further, the famous self-depreciation, which largely characterizes ‘British humor’, might be tentatively explained. The so-called self-depreciating ‘British humor’, given the presence of the other-depreciating ‘laff’ culture among the working class lads, may to a large extent actually refer to the sense of humor of those who are relatively more posh in Britain². These people may somehow deal with their uneasiness or sense of guilt of being posh in the class system by directing the ‘laff’ in the lad culture to themselves. Now come back to my case: I was required to tell a fun fact about myself on the first meeting with the students living on the same floor in my accommodation, which I now understand as a possible form of ‘battle-proofing’, which was supposed to accustom me to the future laugh-provoking by self-depreciation in the social circle.

I also strategically manipulated another stereotype in the West to serve my supposed self-interests at that time, which was regrettable. I was fairly surprised and moved by the friendliness of my fellow students, especially those who lived in my accommodation. Initially, quite a few of them invited me to parties and dinners despite my appearance. I felt I had to decline all invitations or even avoid normal chatting, because without constantly applying eye drops, keeping my eyes open for more than a few minutes was an onerous, if not impossible, task. But I also felt I could not tell people the true reason for my denial because it involved lengthy medical explanations of a quite technical nature, and people would not necessarily understand them. Rather, I believed those who invited me to a party would prefer a quick and understandable

² This may be quite conceivable if we understand that the stereotype of ‘British gentlemen’ may actually come from the image of posh British men with suits and ties rather than that of the British working class mem.

reason for declines. Therefore, I invented my reasons, most of them stereotype-inspired. Why stereotype-inspired? Firstly, because I wanted my reasons to sound believable, and stereotypes usually sounded so. Secondly, I was unskillful, as well as lazy, in making up stories, so I resorted to the existing tropes. I was a Chinese student, so I had a quite useful stereotype: I must study all the time! It turned out to be a convincing reason to turn down all invitations. After using this stereotype, in usually implicit or occasionally more explicit ways, I found that a side effect of resorting to them was that it could sometimes be a bit uneasily humorous, especially when explicitly used. An example is that I once said, 'I am fighting with mathematics like a Chinese student'. I think this experience of my manipulating stereotypes may serve to illustrate how under some circumstances, the stereotyped may intentionally use the stereotypes to communicate with the dominant group.

The stereotypes that I invoked may be understood as quotations in dialogues. The seminal theorist Bakhtin (1986:88) pointed out that 'in each epoch, in each social circle... there are always authoritative utterances that set the tone... to which one refers.' The stereotypes quoted by me may well be the authoritative utterances in this sense. Interestingly, in an Afghan context, Mills (2013:242, quoted in Olszewska 2015:152) remarked that quoting proverbs to express (especially unfavorable) opinions in interpersonal dialogues may leave the speaker a 'safe margin of deniability'. That is, a quotation is not a speaker's own words, so it may allow for a safe distance between the quote's content and the speaker as a person. Mills' point may be extended in light of my quotation of stereotypes. In my case, a more explicit reference to stereotypes created uneasy humor, which may have allowed for an even larger 'margin of deniability'; after all, one could potentially say it was all a joke and not seriously meant, though it must still be restated that these invocations of stereotypes were wrong and highly

inappropriate. Authoritative quotations, in general, are not unusually perceived as humorous to Western minds now. 'In contemporary literature, we sometimes find authoritative quotations, but usually they have ironic meaning' (Mihkelev 2012:1621). A well-known example can be the parody novel *Pride and Prejudice and Zombies* (Austen and Grahame-Smith 2010). Apart from this broader cultural background, there may be a more specific reason for the uneasy humor provoked by stereotype jokes in the college context. Stereotypes uttered in their explicit or even caricaturistic forms may undoubtedly stand out as discrepant from the conventional ideology of political correctness on campus, and their over-simplicity and ensuing absurdity may be immediately revealed to the listeners in their naked forms. Therefore, it could be said that a quotation may allow for a quite considerable 'margin of deniability' if it is perceived to be partly humorous or even absurd, such as when it comes to stereotype jokes in colleges.

As I was constantly wearing the pair of goggles, my appearance would usually not be considered attractive. I understand that this made me develop a strong appreciation and desire for the beautiful. At that time, I had mostly a gendered perception of beauty; beauty was mainly perceived to be relating to femaleness. Due to my appreciation for female beauty, I gradually began to identify with women. I felt I was like a woman whose natural beauty was marred by various things, among which the most salient was the medical condition. To illustrate this, I should mention that at that time I especially felt related to a character who articulated similar sentiments in a Chinese poetic drama written during the Qing Dynasty (1644-1911), *Thinking about the Earthly World* (Sifan 2002). The character that I refer to was a Buddhist nun, Se Kong, who lived in a temple. By no means religious in her heart, she desired to go back to the earthly world and lead a family life. In a monolog that I remembered deeply, she said, 'I was originally a

delicate girl, not a man. Why do I wear a yellow girdle and monk clothes?' (*nu ben shi nv jiao e, you bu shi nan er han. Wei he yao xi huang tao, shen chu an zhi duo?*) (*Sifan* 2002).

The assumption here was that a yellow girdle and monk clothes were too ugly for a 'delicate girl' and only fit for men, who were not supposed to be very beautiful. At that time, I imagined myself as the 'delicate girl' and my goggles as the 'yellow girdle' and 'monk clothes'. Later self-reflection revealed it was over-simplifying and politically problematic to relate beauty with femininity. More specifically, this line could also be accused of using old-fashioned sexist language. It can clearly be seen in the stereotypical phrase 'delicate girl', and it should also be mentioned that the Chinese word that I translated as 'I' was *nu*, which literally means 'slave'. It is a very outdated word used by some Chinese women in the past to address themselves. By quoting the monolog of the nun here, I am not accepting the sexist undertones. I did resonate with her words on a literary level at that time. I indeed felt that I was supposed to be beautiful, or 'female', but my condition made it impossible. I am aware that this gendered perception of beauty was not a reflection of truth, but largely conditioned by my personal experience in which some senior men did not leave positive impressions on me when I was very young.

Here I would like to communicate two textualized figures: the abovementioned Se Kong in the play *Sifan* and the famous 'Elephant Man', Joseph Merrick, as first-handedly depicted by his doctor and friend, Frederick Treves, in his memoir (1923:1-38). I did not know much about the story of Joseph Merrick at that time, so my juxtaposition of these two figures here is only a product of my later reflection. Merrick was an Englishman who lived from 1862 to 1890 and suffered serious physical deformation. Before he was admitted to reside in a single ward in London Hospital, he was forced to perform in freak shows as the 'Elephant Man'. I feel related to Merrick's experience of having a medical condition that led to an unattractive appearance,

though I am aware that bluntly associating myself with him on any higher level would be greatly improper, as it would trivialize his condition. The stories of both Se Kong and Merrick might relate to my perception of my identity to some extent, and the comparison of these two figures from two cultures may also be meaningful in itself in terms of how it may communicate studies of disability with gender issues.

Se Kong was female, Merrick male. Se Kong was pretty, while Merrick unfortunately deformed. Se Kong complained about the constrictions in her plain religious clothes (*Sifan* 2002), while Merrick used to be forced to demonstrate his naked body before an audience (Treves 1923:16). Se Kong rhetorically said that she wished to find a ‘young brother (i.e. lover), allowing him to beat me, verbally abuse me, nag at me and laugh at me’ (*xun yi ge shao ge ge, ping ta da wo, ma wo, shuo wo, xiao wo*) (*Sifan* 2002). Merrick evidently fetishized all women, especially his supposedly loving and beautiful mother (Treves 1923:15-16,21), who Treves (1923:16) thought, in fact, ‘basely deserted’ him, probably in a workhouse when he was extremely young. Se Kong wanted to get out of the temple as a closed space (*Sifan* 2002), whereas Merrick clearly preferred to live in his single ward rather than the unfriendly outside world (Treves 1923: 1-38). Se Kong was very irreligious (*Sifan* 2002), but in contrast, Merrick believed ‘any narrative in the Bible’ to be ‘real’ (Treves 1923: 14). Even more contrasts could be drawn, and these two figures may seem to be structurally opposed to each other. Like everything in a structural opposition, they may be said to be, on a deeper level, the same thing though expressed in two extremes (Leach 2000: 323). As heuristic tools, the structural connection between Joseph Merrick and Se Kong may have in part made it possible that though I physically did not look attractive (which was more conceptually analogous to Joseph Merrick), I ended up strongly relating to Se Kong.

I made the effort to seek medical help for my dry eyes in the UK, hoping to access some treatments that weren't available to me in Shanghai. It finally came to fruition in January when I was having my reading week. I prefer to leave this part of my experience vague due to the difficult technical nature of ophthalmology and reasons of privacy. From then onward, my condition began to be controlled with significant success, and its impacts on most aspects of my life became quite minimal. I no longer wore the goggles or anything that would visibly make me stand out from a crowd. I also no longer needed to close my eyes after reading for a few minutes. One of the first things I did after that was set up a Facebook account. I had not created a Facebook account before because my eye condition made spending time on Facebook a luxury. I wanted to see how the famous Facebook worked and what the people I knew were doing there. My personal profile was intentionally made to look feminine, in terms of the pictures I used and the things I shared, and it was the first time I openly expressed any identification with femininity. I did not write a lot of original posts on it, nor announced my treatment success, but initially mainly shared political posts, including an empowering and polemical poetry performance video named 'Rape Joke' (YOUTHSPEAK 2014). It was an outspoken criticism of rape culture performed by two young female Los Angeles-based poets, Belissa Escobedo and Rhiannon McGavin. I resonated with the poem and still do. Though I had not been physically raped before, I felt as if I had, in a metaphorical sense. It might be due to the experience of childhood abuse by my ultra-masculine father and feelings of potential vulnerability resulting from my disability. However, what I want to emphasize here is the empowering nature of the poem. Of course, I could not say this poem alone empowered me, but it did make me see for the first time how 'empowerment', such an abstract idea, actually worked in practice. Encountering this poem was but one thing on my way to realizing the importance of self-respect and dignity and act on them.

I would not say that because my condition got better, I acquired more self-respect and dignity. I would rather say that at that time, the ability to use my eyes more made empowering materials previously unknown to me now accessible, and they played an important role in my empowerment.

Through contact with these materials, it seems to me that in the popular culture at college, the idea of empowerment, anti-discrimination and political correctness may be in a sense tightly connected with, if not based on, 'identity politics'. The idea, at least in practice, is often understood to be that everyone should have an identity and be proud of it, or speak bravely and confidently from that identity. For example, it was highly emphasized in the poem 'Rape Joke' that it was spoken from the rape victims' perspective. Identity politics is persistent in demanding people's identities. Even those who reject existing ones as restrictive cannot get rid of identities. They are offered newly coined ones, such as the 'non-binary' identity, which is basically defined by the very rejection of identity.

In this context of 'mandatory identity', there may be a risk that 'having dignity for oneself' may be equated to 'having dignity for one's identity'. This may be somewhat problematic. Take my own example: if I no longer felt it very justifiable to define myself as disabled, or never could define myself as a rape victim, then I seemed to lack certain identities as the rightful sources of pride and self-confidence. Given my equally ambiguous national identity as indicated earlier in the text and gender identity, which will be recounted later, I risked lacking an identity. When identities are usually considered preexisting, living without identities may be perceived as differing little from being a 'sell-out', a worthless betrayer (Kazemi 1382/2003:8, quoted in Olszewska 2015:57). Agamben's (1998) *homo sacer* seems to be in a likewise situation. If one's 'human rights' basically become 'civil rights' and can only be accessed when the person is a

citizen of a state, without citizenship they will live a bare, disposable life. Similarly, if a person's confidence and dignity may have been largely only accessible on the condition that they have an identity, an identity-less person risks being less than a person. A popular kind of identity politics on campus may prefer one to say, 'as someone, I feel something.' Instead of excessively relying on the idiom of identity to legitimize claims to certain feelings, maybe one should only need to say, 'I feel something'.

As I said before, my Facebook profile was made to look feminine, which was the first time I publicly expressed some femininity in my character. However, I was but too aware of the stereotype of feminine Asian men and did not want to fit myself neatly into it at that time. I did not feel there was anything wrong with being feminine, but when it became a stereotype, I would then think twice before happening to conform to it. This might possibly be due to my personal aversion to any Asian stereotypes after regrettably using (without believing in) the nerdy-Asian stereotype myself. I understood and respected other people who might have different choices. I, therefore, felt dealing with my gender image was a precarious business. My solution was to be feminine on the content that I posted/shared on Facebook and relatively masculine in my behaviors in everyday life. It was inspired by some anthropological readings: Mary Douglas (2003) and Victor Turner's (1995) works on the power of ambiguity. As an armchair student anthropologist, I thought that if I showed these two different identities to people on the cyberspace and in real life, my identity would be confusing, ambiguous and even, hopefully, a bit mysterious. I was mischievous and liked to perplex people, so this solution fit me quite well. Another reason was that I still did not feel that I was absolutely clear about my gender identity at that time, so I did not want to commit fully to a female identity at once. After all, the equation between femininity and beauty was of a quite problematic nature that could not be unfelt.

Thinking about how other people would perceive my 'double identity', I was aware that not everyone would think my identity was 'ambiguous' like how I expected. For example, some might think I was a gay man. At the end of the day, identity is also in the eye of the beholder. After the reading week, when I physically appeared in front of my fellow students and teachers with the new image, most of them had subdued surprise and no one asked 'how come'. This was what I expected and felt happy about as I presumed that they would want to show respect to my medical privacy by not being nosy. There were only some members of staff in the college that did not hide their surprise. 'You look much younger,' one lady said happily. I was thankful for her remark, because I knew she was kind and good-hearted, though I believed at that point that I had always been quite good and 'young', regardless of my appearance and the extent to which my condition was controlled.

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Boom and Bust in Roman Antiquity: An Environmental Archaeological Explanation of the Rise and Fall of Rome
By Dylan Davis

Abstract

One of the fundamental questions posed by archaeologists involves the nature of success and failure of civilizations. Using the tetra-dimensional climate model, broad investigations can be made regarding the rise and fall of civilization, as well as more narrowly focused analyses into the impacts of such occurrences on individuals living in the midst of major transition. This article uses the Roman State as a case study and investigates the changes in the environmental, economic, social, and political climates throughout the history of the Roman Republic and Roman Empire, and examines the influence of climatological flux on small landowners, merchants, and elite individuals. This study concludes that environmental fluctuations would have been immediately noticed only by small landowners and farmers, but in prolonged instances of negative climate change (i.e. drought, famine, etc.) these effects would disseminate into the economic climate, thus encumbering trade and causing financial problems for merchants and the elite. In instances of economic downturn, social and political unrest would categorize the socio-political climate, leading to societal instability.

Introduction

Humanity has been challenged by its natural surroundings since the dawn of our existence. In times of ecological unpredictability, societies are put to the test, and depending upon the level of adaptability, these groups either survive through innovation, or collapse due to antediluvian practices and a lack of advancement. Adaptation, transformation, and resilience are all equally important when dealing with the success of humanity (see Walker, *et al.* 2004). When approaching

the question of success or failure in relation to civilization, a multifaceted approach must be acknowledged.

The Tetra-Dimensional Climate Model (TDCM) is one such approach to this age-old archaeological question. This theory consists of four components: social, economic, political, and environmental (see Davis 2016). These individual facets coalesce to form one variable that indicates success or failure in a given human society. Using the Roman State as a case study, a detailed investigation into the effects of tetra-dimensional climate change will illuminate the experiences of Roman citizens of various socio-economic statuses during periods of consistency and tumult. As environmental and economic climates became stable and prosperous, the opportunity for power and wealth became available. New prospects for social, economic, and political advancement led to increased stratification and complexity in the socio-political arena. In periods of environmental and economic instability, opportunities became scarce and tensions arose, leading to a strained socio-political atmosphere. Ultimately, poor climate led to the disintegration of the Roman State.³

The Tetra-Dimensional Climate Model (TDCM)

TDCM, briefly described above, involves the combinations of the natural environmental climate and three levels of anthropogenic climate – social, political, and economic – which are dependent upon each other as well as of the contemporary environmental climate (see Figure 1). All of the individual facets of the model are interconnected, leading to constant interaction between humans and our anthropogenic climates (i.e. politics, economics, social constructs), and humans

³ Note, “climate”, when referred to in this article encompasses the entirety of the tetra-dimensional model – environmental, social, economic, and political climate. If environmental climate (i.e. drought, famine, temperature, precipitation) is being referred to on its own, it will be specified.

and the natural world.⁴ In order to best define TDCM as a whole, a concise breakdown of each of the four elements of this model will be described.

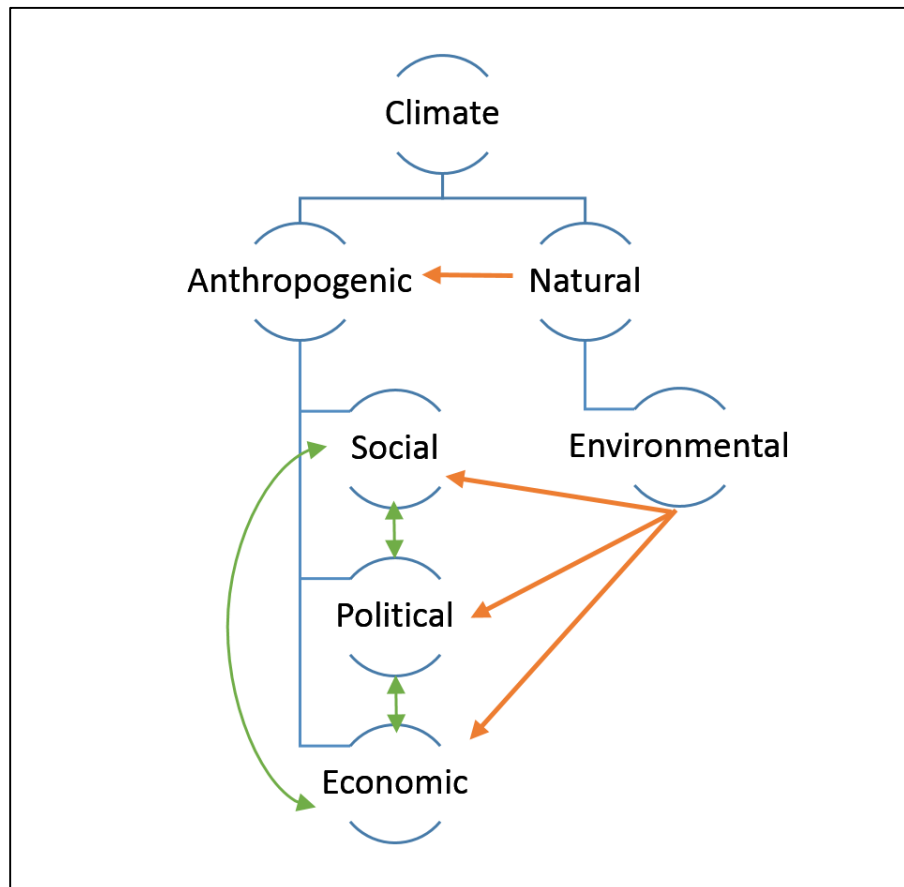


Figure 1: The Tetra-dimensional Climate Model. Climate is divided into two parts: anthropogenic and natural climate. Anthropogenic climate consists of three components: social, political, and economic climate, while natural climate consists of only one part: environmental climate. Thus, climate is tetra-dimensional: social, political, economic, and environmental. By author.

Environmental Climate

The environmental climate is the traditional definition of climate, defined as “prevailing” weather conditions in a given region, either generally, or over a period of time. This component of TDCM is entirely independent of human control, as well as of the other three climatological facets of the model. Humans may alter (and have altered) the environment, both intentionally and

⁴ Hodder (2016) describes a similar phenomenon which he calls “human-thing-entanglement”, discussing the ways in which humans interact with each other as well as other components of the natural world. Each of these interactions further “entangles” people with their surroundings.

unintentionally. Nevertheless, humanity cannot *control* the environmental climate; we cannot change precipitation levels or temperatures. As a result, the environmental climate of a region or time period generally dictates the direction that human civilization will take, with environments favoring agricultural production being the most beneficial for human growth.

Economic Climate

The economic climate of a group or region does not necessarily coincide with modern economic thought or theory. Ancient societies did not have a global economic system as we do today. Therefore, “economics”, for the purposes of this model, refers to any occurrences of exchange between different groups. In the instance of most archaic societies (including Rome), agricultural trade is among the first of such elements of an “economy”. As a society advances, economics may include the extraction of raw materials – such as precious metals – and widespread trading networks. When exchange between regions is constant or growing, then the economic climate can be considered positive. If trade relations are strained, virtually non-existent, or in rapid decline, then the economic climate can be considered to be negative, and thus a stymie to societal development.

Political Climate

When defining political climate, stability and governmental system type are important determinants. A totalitarian government is an example of an oppressive political climate, which is unsuitable for societal advancement. Individuals may be locked into a social role with no hope of enhancing their lives or the lives of their family. Democratic governments, on the other hand, allow for more social development, giving individuals the opportunity to advance their social and economic standings. Regardless, if the governing system is unstable (i.e. constant coup attempts, death of a leader, uncertainty of political succession) then the political climate is unfavorable, and

will likely prove to be a hindrance to human development. Therefore, the political climate is only beneficial when the system is stable *and* the governmental type is tolerant of societal progression.

Social Climate

The best definition for social climate would be the following: social climate is the overall consensus among the masses regarding their opinions of the governing socio-political and socio-economic systems. It is the social climate that is the best indicator of the experiences of the individual in past societies, as well as contemporary civilizations. For example, if a group of people consider their government to be oppressive and their rights restricted, the social climate is one of contempt, and will likely lead to a revolution or rebellion against the current political regime. Likewise, if the masses are unhappy with the economic climate (due to inflation, job availability, etc.) then the social climate will also be one of unrest. If the political and economic climates are both preventative of human progress and social development then the social climate will be negative, and may even lead to violence.

Experiences during Positive Climatological Conditions

In the early history of the Italian Peninsula, small farmsteads dotted the countryside. Following the sixth century B.C. many small farms began to transform and expand into villas. Among the cultivars harvested on Italian farms, the grape was one of the most favorable and profitable, largely due to its ability to be fermented into alcohol (Dietler 1990). By the third century B.C. there is an increase in agricultural production (Figure 2), evidenced by a rise in agricultural presses for olives and grapes, the rise in amphorae production, and the emergence of agricultural villas for the first time in Italy (Terrenato 2001: 18). Agricultural production at this time was, however, a profession of common peasants, and not the elite Roman (Kron 2012: 163; Purcell 1985: 7).

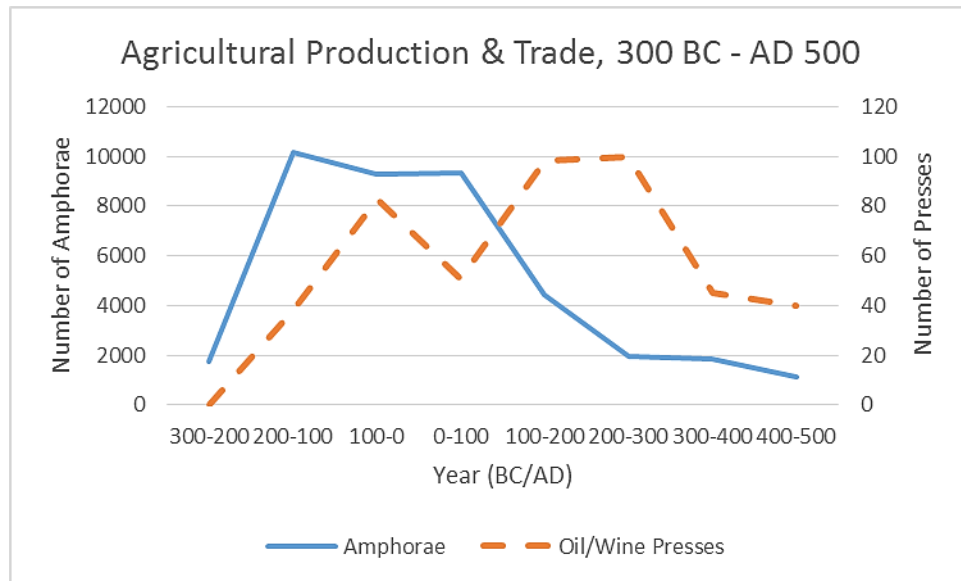


Figure 2: Shows the rapid growth of the agro-economy of the Roman Empire beginning in the third century B.C. The decline in amphorae beginning in the first century A.D. is not a reflection of the agricultural economy, but of a decrease in shipwrecking beginning around this time; as a result, less amphorae are found due to less shipwrecks to recover such objects from. (Data source: Marzano and Flohr (2013), Strauss (2013)), by author.

The Common Peasant

For the individual farmer at this stage in Rome's history, the primary concern was, first and foremost, to produce enough food to feed their family, and secure enough surplus to store in case of famine or drought; of secondary importance was to sell surpluses at a profit (Bowman and Wilson 2013: 22; Storey 2004: 113). Environmental climate was viewed by the average individual as a domineering force; if that force was conducive to agriculture, then the livelihood of that person and their family was secure. However, if the environment was in a negative state (e.g. famine, drought, flooding, etc.), the lives of the individual and their family were cast into risk and uncertainty.

Using dendrochronology, Büntgen et al. (2011a) reconstruct temperature and precipitation records dating back to approximately 500 BC. Beginning in the mid-fourth century B.C. temperature remained fairly stable throughout Europe, and precipitation levels rose steadily (Figure 3). Agricultural villas and an abundance of farms were flourishing by the third century

B.C., and it is reasonable to assert that the rise in agricultural production in many regions throughout Italy was, in part, due to a stable environmental climate. Walter Sheidel (2012: 12) asserts that warming conditions and increased precipitation would have had positive effects on agriculture, and thereby on population growth. This in turn led to economic prosperity, and eventual socio-political diversification.

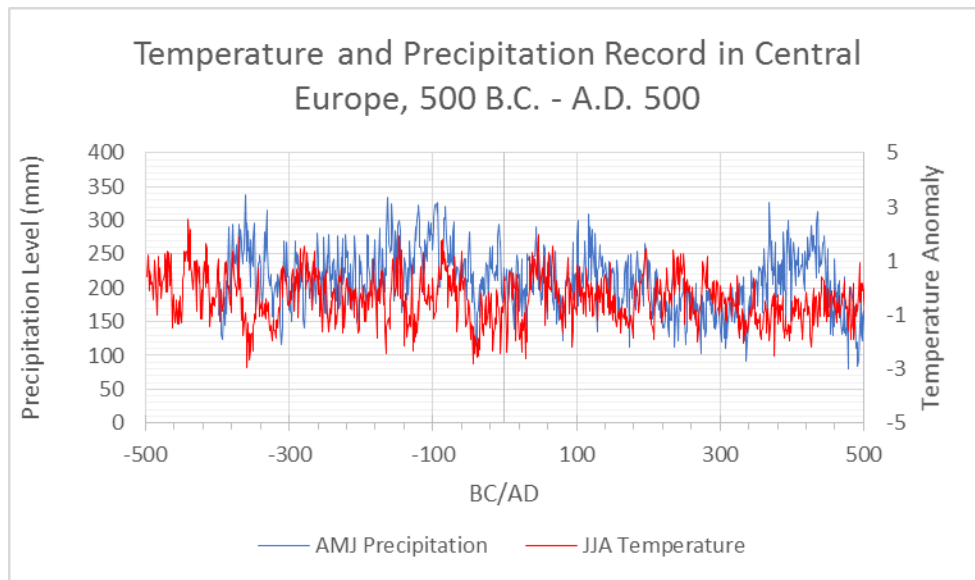


Figure 3: Shows April, May, June (AMJ) precipitation records and June, July, August (JJA) temperature records reconstructed by the dendrochronological study conducted by Büntgen et al. (2011a, 2011b).

Looking at this occurrence from an individual's perspective highlights the overall concerns of people living in Italian antiquity. From the sixth century B.C. onward, the presence of farms illuminates the fact that agrarianism was the foundation of Italian and Roman economics, and a backbone of Italian society. With stabilizing environmental conditions, the everyday apprehensions of food shortage diminished in the presence of a surplus of agricultural produce. For small landowners, the stability of the environmental climate brought with it increased precipitation (Büntgen, et al. 2011a). The argument that stable environmental conditions allowed for increased success of agricultural institutions is further backed by archaeological data depicting an increase in olive oil and wine presses, amphorae production, and shipwrecking (Figure 4).

Increased surpluses would have provided a buffer against natural disasters and allowed for focuses of everyday individuals to shift from survival to leisure. However, in the presence of food storage, inequalities often arise, especially in terms of socio-political status (Testart 1982).

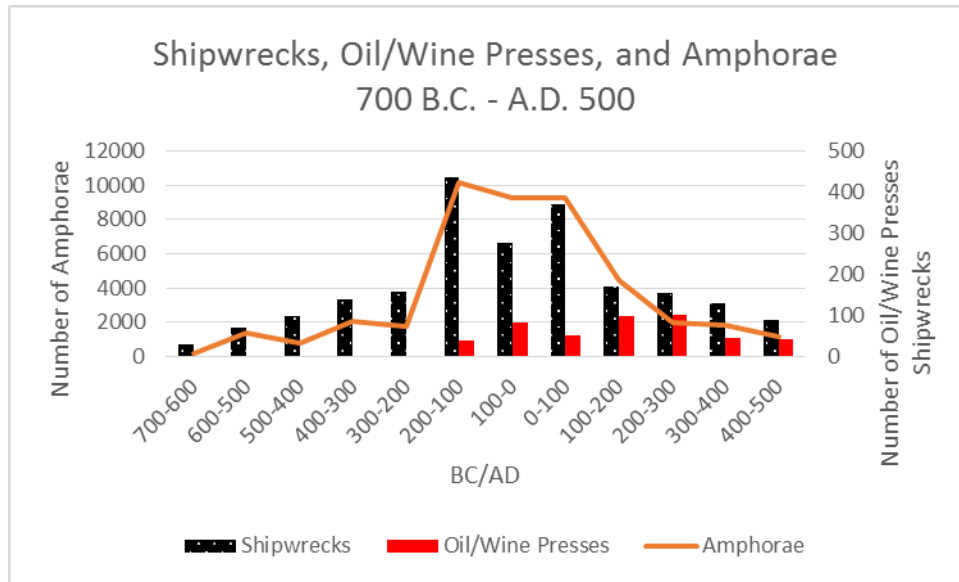


Figure 4: Shows the number of shipwrecks (as well as the amphorae recovered from them) and the number of olive oil and wine presses in existence from 400 BC – AD 500. After Davis (2016).

The lower-class landowner often sold excess foodstuffs in *nundinae* (countryside markets), and elites often sold their products across the Italian Peninsula, and even into other parts of the Mediterranean, including Europe. However, one aspect of small-scale farming that must be addressed before discussing long distance trade is the emergence of the merchant class, which will be addressed in the next section of this article. In addition to storing this surplus, small landowners now had an accumulation of wealth, which could be sold in *nundinae* for profit (Storey 2004: 113). Grapes, in particular, were a highly valued commodity (Olcese 2005: 61), and viticulture was one of the primary cultivars of small farmers, as well as large agricultural production centers such as villas and *latifundia* (beginning around the third century B.C.). In markets such as the *nundinae*, local farmers were connected to a newly founded class of merchants, who would coordinate the exportation and transportation of the products that were harvested by local landowners (Kehoe

2013: 47; Purcell 1985: 8). Once such success was ineluctable to skeptics of agricultural investment, the elite began to pounce on such opportunities.

Merchants and Movers

Merchants emerged out of local markets (such as *nundinae*) as mentioned above. Environmental stability allowed for surplus agricultural production, which in turn, gave way to social differentiation and development. Among the formations that emerged from this newly stratified societal structure was a class of merchants and transporters who acted as middlemen in the ever-expanding overseas trade between Italy and the rest of the Mediterranean (see Figure 5). Merchants made use of loans and other methods to insure cargo being transported long distances (Temin 2006: 138). The emergence of this new profession is also indicative of increased opportunity for individuals, as farming was no longer the only way to make a living. Nonetheless, social roles were still largely locked in place, with little room for active social or economic mobility. Many agricultural villas were run by slave labor (such as the *latifundia*), and socio-economic gaps began to widen.

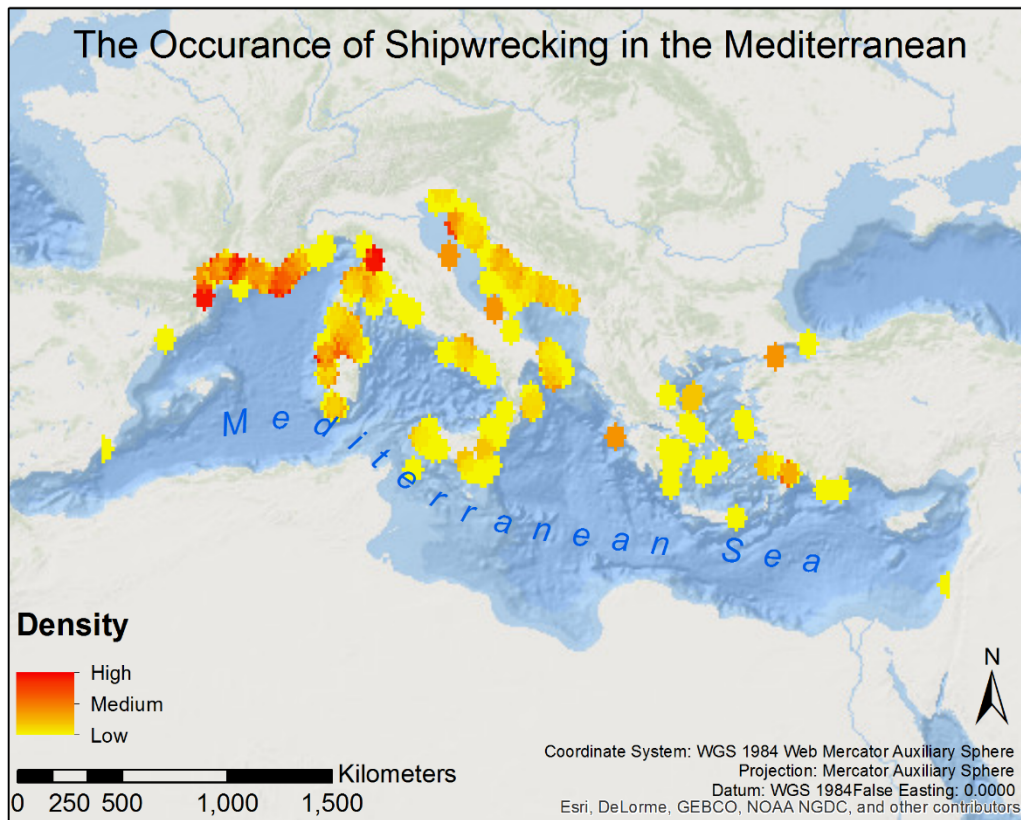


Figure 5: The map shows the locations of the highest and lowest densities of shipwrecking in the Mediterranean throughout antiquity. Notice that the highest concentrations of shipwrecks occur in southern Gaul (modern day France). Data Source: Strauss (2013), by author.

Even so, the emergence of a class of merchants and movers allowed for a section of society to farm the land and another social sector to transport the produce to other locations. In the latter days of the Roman Republic and the early days of the Roman Empire, the *annona* (grain trade) became largely important for the merchant class, and private contracts were made between merchants and the government to secure a stable supply of grain for the city of Rome (Kessler and Temin 2005, 2007). For merchants, when agricultural production was booming, their lives were busy but secure. A thriving economic and political climate was required for prosperity of merchants in the Roman Republic and Roman Empire, and if the government was not cooperative, or the economy was in decline, merchants could find themselves out of a job and in a state of poverty, which does indeed occur later in Rome's history.

The Elite

Several Italian centers were known for their wine production (see Purcell 1985: 6), and many farms and villas began to congregate around Campania, Latium, and Etruria. During this same period, *latifundia* of the upper-class began to “dominate” parts of the Italian countryside (Moore 1995: 12). Villas, in particular, were becoming a more common investment for elite landowners due to their profitability from agricultural production (among other functions), as well as the rise in prestige and respectability that was brought to the owner of such property (Terrenato 2001: 29). Of all the agricultural commodities that were harvested on farms and villas, the grape was the most desirable, and long distance wine trade between Italy and Gaul was in full swing prior to the mid-third century B.C. (Kay 2014: 145; Kron 2012: 163; Purcell 1985: 7).⁵ This is noticable in the archaeological record, as the presence of olive oil and wine presses increases during and after the third century B.C. (Frankle 1997: 74; Marzano and Flohr 2013), as well as an increase in shipwrecking (Davis 2016; Strauss 2013). In the wake of agricultural surfeit came increased wealth and status, and with profitability came increased gaps between social classes.

Epitomizing the elite Roman who seized opportunities to profit off of the ever-increasing wine trade was the Sestius family. The Sestius family owned agricultural land outside of Cosa, a Roman colony founded in 273 B.C., and created an expansive enterprise based off of viticulture that directly influenced the economic wellbeing of Cosa (Manacorda 1978: 124). All of the Sestius products were shipped in specially marked amphorae containers, engraved with the insignia, “SES”, to signify ownership (Will 1979: 342-343). SES amphorae have been recovered, in bulk,

⁵ See, for example, Figure 4, which highlights the increased maritime activity in Gaul, much of which was involved with trade.

from various shipwrecks and land-based locations throughout Europe (see Figure 6), and highlight the expansive nature of the wine trade by as early as the second century B.C.

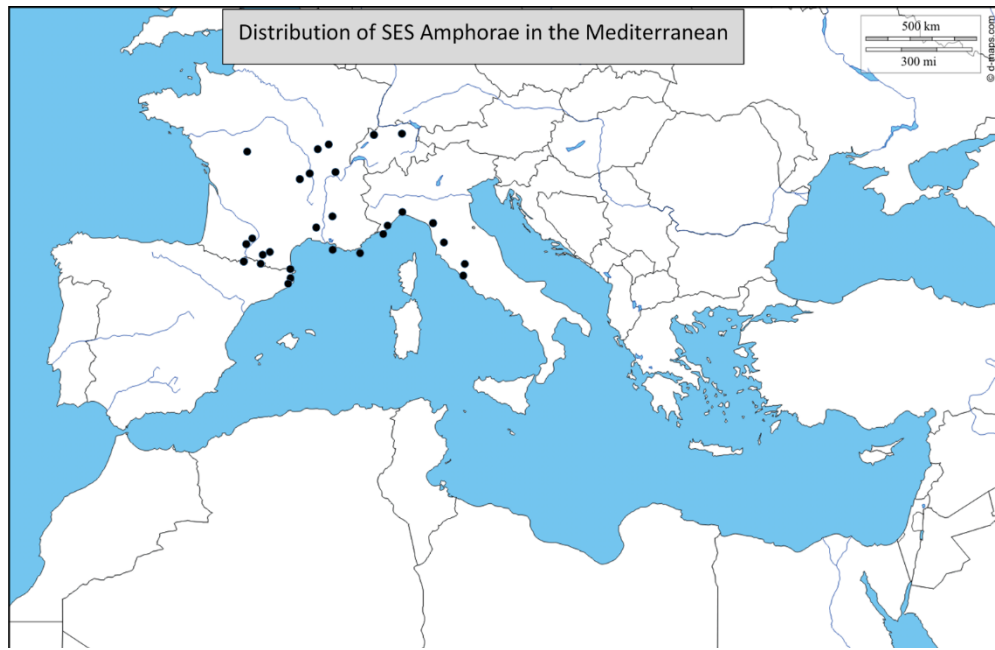


Figure 6: Map showing the distribution of amphorae stamped with the insignia, *SES*, signifying ownership by the Sestius family. After Peacock (1977) and Manacorda (1978).

By the early days of the Roman Empire, a “very small elite group at the top of society and the economy, composed of several hundred ‘senators’ and a several tens of thousand ‘knights’ in a population of around 50 million, held great wealth—typically in the form of land” (Temin 2006: 136). With large landownings, the elite of Rome quickly became engaged in economics as well as politics (i.e. the Sestius family) (Adams 2012: 235). Especially after the establishment of Roman naval hegemony following the Punic Wars, shipwrecking declines, but olive oil and wine production remains prosperous (see Figure 7). Cicero is even quoted as stating that maritime trade routes unified the Mediterranean into a “single harbour” (cited in Adams 2012: 225). With prosperous and widespread trading networks, the elite of the Roman world became wealthier, and Rome as a society became more and more monetized, noticable through the rise in silver coinage

production (Hopkins 1980: 106). For senators and equites, the life of luxury was commonplace due to widespread investments in land and agricultural trade.

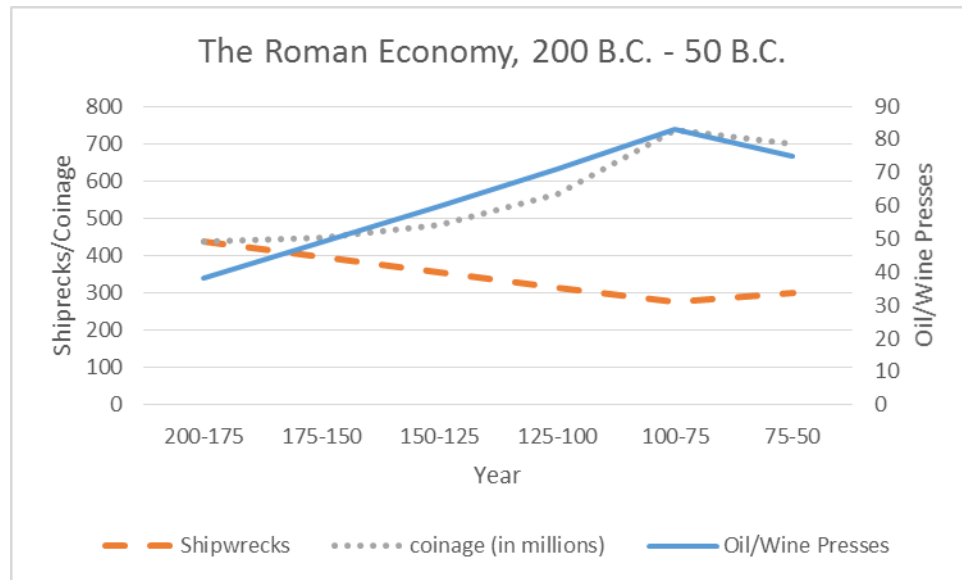


Figure 7: Shows the rise in agricultural production and coinage production between 200 B.C. and 50 B.C. and a fall in shipwrecking during this same time. This indicates the rise of an agro-economy and safer ocean transport. By author.

Experiences During Negative Climatological Conditions

By the first century A.D. climatological instability had taken hold of Europe, and agricultural production was adversely affected (Büntgen, *et al.* 2011a; Davis 2016; McCormick, *et al.* 2012). By this point in Rome's history, its economy was reliant upon multiple factors, and was no longer a pure agro-economy.⁶ Additionally, Rome was largely dependent upon a stable currency (largely based on silver content) for economic stability (Kehoe 2013: 49). Gradually, as agricultural production waned, other important resources also became scarce, and the metal contents of coinage were reduced. Eventually, the reduction in silver content reached a tipping point and the currency was completely debased, thereby undermining the economy (Hitchner 2009: 281; Hopkins 1980: 123-124; Ponting 2009: 274-275; Tainter 2014: 204). Furthermore, by

⁶ See, for example, Russell (2011) for an account of the widespread distribution of the stone trade in ancient Rome.

the third century, the environmental climate had shifted towards drier and cooler conditions (McCormick, et al. 2012: 185). This period was highlighted by increased conflict and turmoil, leading to economic and political stress.

The Common Peasant

The effects of environmental changes would have certainly affected farmers and agricultural workers beginning around the first century. It is important to note that Europe was the only location that was negatively affected, and other regions of the Empire remained prosperous in terms of agriculture (see Figure 8). For most agricultural peasants, if they did indeed own their own land (and did not rent land from a wealthier landowner), beginning in the first century and continuing into the second and third centuries, the best harvests would have become less frequent, and the worst harvests more common (McCormick, et al. 2012: 189). Although this decline in production would have been felt by common citizens, the more influential pressures would have been periods of political and social strife, highlighted by civil wars in the late second and early third centuries.

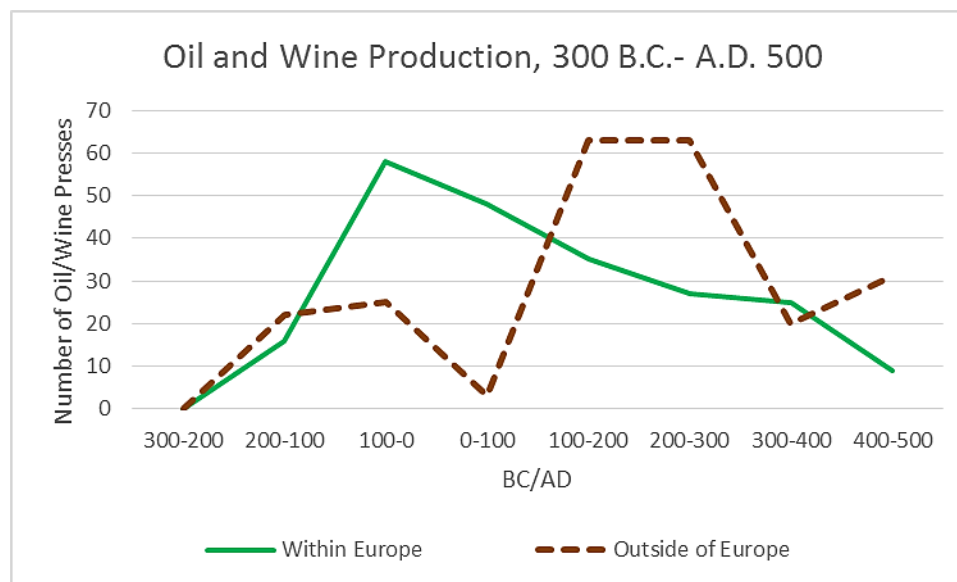


Figure 8: Shows the number of recorded agricultural presses (for oil and wine) recovered throughout the extent of the Roman Empire. It is noticeable that the production of olive oil and wine takes off very quickly in Europe up until the 1st century A.D., and then begins a slow, but steady, decline. To the contrary, in regions outside of Europe, beginning in the 1st century A.D., agricultural

production increases rapidly, soon out-producing Europe by the 2nd century A.D. as Europe's production declined. After Davis (2016).

Merchants and Movers

Over time, economic pressures would have built upon commoners. With little agricultural surplus – and in some instances, no surplus – making enough money to meet financial obligations would have become strenuous, and local economies based on agricultural production would have turned to recession. Despite the long-term effects of agricultural deficit, for most of the first and second centuries A.D., common citizens saw slight rises in wages and standards of living (Zuiderhoek 2009: 55). Therefore, merchants would not have been hurt financially for several centuries, but temporary declines would have been noticeable.

Merchants and traders who depended upon local production to run their own businesses would have also begun to experience economic downturn, as limited supplies hampered trade. Amphorae production decreases in the first century (Tchernia 2006). The essentially valueless currency of the Roman state created another problem; a dearth of funds that could be used to pay for transportation of essential goods throughout the empire brought trans-Mediterranean trade to the lowest levels it had attained since the early Republic (Davis 2016). Therefore, in addition to a deficiency in products to ship throughout the Empire, there was also no money to pay for the transport of goods. For merchants and movers during the late phases of the Roman Empire, business was stagnant, funds were non-existent, and strained political and social climates were predominant throughout Italy.

The Elite

Multiple times throughout the Roman Empire's history, struggles for power dominated the political scene. Senators were often limited in their power, and during periods of civil war, were often in considerable danger from those competing for authority. The prosperity of agriculture was

not inherently destroyed for elites as it was for local landowners in Italy and across Europe. Some senators owned land in locations outside of the Italian Peninsula, and therefore could continue to prosper from agricultural production. Nonetheless, the weakening economy and deficiency of monetary funding for transportation of necessities began to spell trouble for the ruling aristocracy and elite of the Roman State.

Nevertheless, during the first several centuries A.D. the elite increased their status, concentrating even more wealth, while the peasantry and small-landowners struggled (Zuiderhoek 2009: 54). It must also be understood that the elite were not a unified class of citizen, and some elites were wealthier and more powerful than others (Mattingly 2011: 18). By the fourth century, Diocletian had divided the empire into a tetrarchy, leading to increased chaos as coups for power ensued soon after.

Discussion

The distinction between stability versus instability is of categorical importance. The concept of TDCM emphasizes this concept, and exemplifies how prolonged fluctuations in the environmental climate can severely impact social, economic, and political climates of a given society. Nonetheless, such models often overlook the impacts of such change at an individual scale. This article has attempted to highlight the experiences of individual Roman's – separated by socio-economic status – in the face of such change.

When discussing the traditional concept of 'climate change' (i.e. environmental climate), the only individuals who will be immediately and directly affected are agricultural workers and farmers. For the Italian peninsula during the rise of the Roman Republic, this was largely the experience of small landowners. In periods of stable temperature and precipitation, farms were prosperous, and eventually, surfeit agricultural produce allowed for the diversification of the social

ladder, forming a new class of merchants. This new class allowed for long distance exchange of goods to pervade throughout the Mediterranean region, and soon an economy was developed off of agricultural trade, among other commodities.

Now faced with beneficial economic and environmental climates, social and political complexity allowed for the consolidation of some of the wealth accrued by landowners, thereby forming a class of Roman gentry. This upper-class of Roman society was highly diversified in terms of status and wealth, and the gap between poor and rich widened over time. The wealthiest landowners often found themselves within the elite, and in addition to profiting off of agricultural production, usually concentrated significant political power. In summary, in times of ecological stability, social stability often followed, allowing for development and growth. Such growth is characterized by an abundance of resources (including surpluses of food and luxury items), economic prosperity, social diversification, and for the wealthiest individuals, increases in political influence.

To the contrary, when environmental climate is unpredictable, or in a nonconductive state for agricultural prosperity, the experience of individuals is not as optimistic. When the environment first begins to vacillate, immediate effects are not usually devastating. Farmers and small landowners will still make ends-meet, and the economy will remain fairly stable. However, when such conditions (including drought and unusually high or low temperatures) persist, the effects are devastating; severe food shortages will not only put farmers and agricultural workers into poverty and hunger, but the merchants who trade such goods will also face destitution. With a lack of foodstuffs and merchants, trade begins to slow down, and other important commodities are no longer able to be transported from one location to another. This places the economic climate into a state of recession.

Looking at this from the perspective of TDCM, a poor environmental climate led to a drop in agricultural production and therefore a slowdown of the economic climate. The model then predicts that this imbalance will result in the weakening of the social and political climates of a society. This is precisely what occurs for the Roman Empire, as shown in Figure 9 (below).

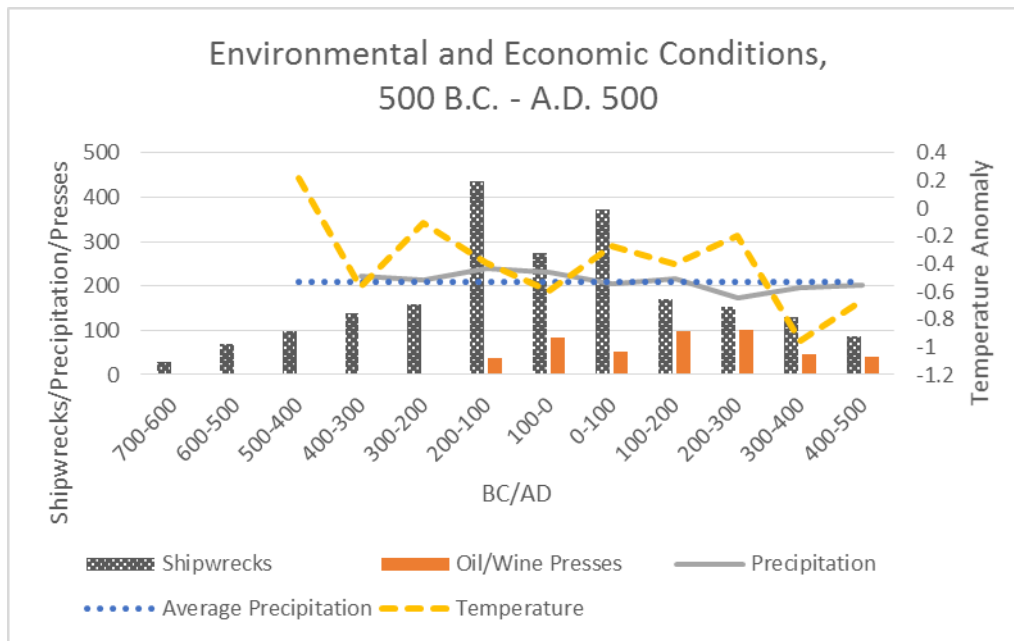


Figure 9: As precipitation levels remained stable and above average (210 mm was average), shipwrecking and agricultural production increase, indicating rising levels of trade and economic activity. With stable temperatures and precipitation levels, productivity remains high. As precipitation levels fall below average and temperature becomes unstable, agricultural production decreases, indicating economic decline. By author.

With the economy in ruins, civil wars soon erupt and coups for power result more and more frequently. The elite themselves begin to feel pressure resulting from economic decline and socio-political strife, and on multiple occasions find themselves in precarious situations. A dis-unified political system, coupled with a failing economy and constant threats from raiding neighbors, eventually leads to the sacking of Rome itself, and the ultimate disintegration of the once omnipotent Roman Empire.

Conclusion

The nature of success and failure of civilizations has been a point of inquiry for many archaeologists and anthropologists. Using TDCM, broader investigations can be undertaken to explain the rise and fall of civilization, examining not only environmental climate change, but also transitions within economic, social, and political climates. Additionally, TDCM can be utilized for more narrowly focused analyses of the impacts of such fluctuations on individuals living in the midst of major transition.

The Roman State exemplifies the potential of this tetra-dimensional model of climate in examining the influence of climatological flux on small landowners, merchants, and elite individuals. This study concludes that environmental fluctuations would have been immediately noticed by small landowners and farmers, but not inherently detected by other members of the social order. However, in prolonged instances of negative environmental climate (i.e. drought, famine, etc.) these effects would propagate into the economic climate, thus encumbering trade and causing financial problems for merchants and the elite. In instances of economic downturn, social and political unrest would categorize the socio-political climate, leading to societal instability.

The Roman example indicates that economic instability can (and will) create a cascading effect on the other anthropogenic components of climate, causing unrest and instability in the social and political facets of society. With an unstable, stagnant, or failing economy, socio-political unrest and struggles for power often erupt. Such an anthropogenic climate leaves societies open to depredation, leading to potential collapse. For Rome, unstable environmental climate led to an unstable anthropogenic climate; this, in turn, sparked civil war, divided the empire, and eventually led to Rome succumbing to foreign invasions.

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Inside the Rink: Where Common Assault is not Criminal
By Kelsey Fenner

Abstract: This paper discusses the structure of the National Hockey League (NHL) and the ways in which the structure discourages legal action against on-ice altercations. By exploring legal precedents and the laws governing fighting in the NHL, this paper hopes to highlight the separation between the larger legal systems of the United States and Canada and the professional sporting world. By arguing that the NHL has its own independent legal system that hands out fines and suspensions instead of official legal action, an argument can be developed about the structure of the NHL allowing, and even obligating, the need to fight on the playing surface.

On March 5, 2013, New York Rangers' player Marc Staal took a hockey puck to the eye—resulting in a retinal tear and an orbital fracture (Brophy 2013). At the time of the injury he was not wearing a face visor. A short time later, his brothers, professional hockey players as well, began wearing visors. Although there is empirical evidence proving that a visor reduces the number of facial injuries, there are also worries that it increases the number of physical altercations on the ice. The physical aspect of hockey has come under fire by many, but most assert that it is the player's choice whether or not to engage in altercations. This paper will discuss how the use of a facial visor connects to the high level of violence in the National Hockey League (NHL). It will argue that the structure of the NHL has developed so that it fosters an environment in which fighting has become institutionalized, and that players might feel obligated to fight. It will also address the idea that the NHL's separation of their legal system from the country's has led to the encouragement of player violence because of the low probability that outside legal action will be taken against those involved in on-ice altercations.

The debate over whether to make a face visor mandatory in the NHL has been long and heated and reached a pivotal point in 2013 when the NHL declared it mandatory for new players entering the NHL to wear visors (Brophy 2013). For players already in the league, the visor remains optional. Those against wearing visors argue that the visor makes it more difficult to see—

and therefore harder to avoid hits—increasing the risk of injury (Stevens 2006, 238). While there has been empirical data showing that the visor does not reduce the number of concussions suffered, it does reduce the chance of eye injury, non-concussion head injuries, and can possibly reduce the severity of concussions (Stevens, Masco, and Paul 2008, 979). Unlike the hockey helmet, which was required by the NHL in 1979, the visor remains optional for players grandfathered into the new ruling. However, in recent years the visor has become more popular among players. In the 2001-2002 season, only around 23% of players were wearing visors, but in the 2012-2013 season—before the ruling about visors was made—73% of players chose to wear a visor (Stevens 2006, 240). Whether this is because visors are being made better, players are seeing their teammates seriously injured, or precautionary thinking, the increase of the use of the visor—and the new ruling mandating that new players wear visors—will cut down on injuries like the one Marc Staal suffered.

Despite the recent ruling mandating that new players wear visors in the NHL, more research has been done to see if there is a connection to wearing a visor and increased violence. Studies discovered that 69% of players felt that because they were wearing a visor they could play more aggressively. This is consistent with the rest of the results of the study which found that players “look down” on the visor as a sign of weakness and showed that visor wearing players could become targets for violence (Stevens, Masco, and Paul 2008, 979). One thing that remains constant through all of these studies is that they arose because of the level of violence present in NHL hockey.

Ice hockey is a physical sport, and as such “physical contact is an expected and desirable part of the game” (Stevens, Masco, and Paul 2008, 979). The physicality of the sport grows at each level of hockey until it reaches its climax in the NHL. The NHL, like many other professional

sports organizations, is a smaller community whose legal system is almost completely separate from the larger states in which it resides—Canada and the United States. NHL players exist in two legal worlds where the legal systems rarely cross, yet in one sphere actions are permissible that would be prohibited in the other sphere. The laws of Canada and the United States do not typically apply to the areas under the jurisdiction of the NHL, most notably the hockey arenas. It is also important to note that most legal action taken against hockey players for their actions within the game has been conducted in Canadian courts—fewer cases are brought against players in America—so many of the following examples are within the Canadian legal framework.

Because violence is considered part of the game, outside prosecutors are content to stay “out of the arena” and let the NHL enforce their own rules (Baxter 2005, 281). Hockey fans, and outside legal authorities, are lured into “whatever spectacle the NHL...wants us [spectators] to buy into” because there is a level of violence inherent in the game that is deemed acceptable (Black 2014). In part, this apathy to violence is because the prosecutor's charges will not hold up in court. In fact, a Canadian judge stated during a hockey related case, *R v. Gray*, that it would be nearly impossible to find any player guilty of common assault simply because of the nature of the sport. He also ruled that by signing an NHL contract, players are consenting to common assault whenever they are on the ice (Baxter 2005, 285). This landmark case created a legal stance that a certain level of violence in hockey is both inevitable and tolerable, and what warrants legal action outside of the hockey arena is acceptable within it. Hockey altercations are rarely brought before courts because the NHL contends that they are better equipped to handle on-ice violence. Fighting sells tickets, so by doling out fines and suspensions, players are kept playing and the NHL keeps selling tickets. As such, the NHL seems to “condone violence to a greater extent” in hopes of profit-maximization (Rockerbie 2016, 292). To achieve the maximum profit, the league has

created an internal legal system that, some feel, is more efficient and consistent in its rulings than the courts because of the specificities of hockey legality (Tepperman 2014, 28).

Suspensions and fines have become a thing to expect in professional hockey, and most players and spectators are content to let that be the ultimate punishment for illegal hits or excessive violence. This acceptance of the NHL rulings also occurs because, in the infrequent occurrence that a court case is presented, prosecutors find that these high profile cases are extremely difficult to win. When faced with high profile athletes, juries tend to be reluctant to convict. Tepperman calls this the “community subgroup rationale” in which wider society rationalizes an illegal action as legal for a particular smaller community independent of the larger society (2014, 27). This idea helps to explain the reasoning behind why hockey players are not often litigated for on-ice violence and why, if they are, their cases are so difficult and untenable—their on-ice actions have possibly come to be seen as licit by wider society through the subgroup rationale. “It [NHL] provides the perfect space to push...a particular line, because there is very little possibility of anyone pushing back” (Black 2014).

In addition to the “community subgroup rationale,” there also exists the legal foundation in hockey-related cases of “involuntary reflex action”—Baxter defines this as—“a player’s actions [resulting] from attitudes instilled in him at an early age, combined with [a] high level of pressure and emotion associated with sports”. This defense was successful in two hockey related cases. In *R v. Green*, the judge acquitted Green, and in *R v. Leyte* the judge declared that by playing the game at that level, the players have unofficially “consented to acts resulting from *instinctive* reactions”. The idea that hockey players can be acquitted based on the argument that a force stronger than the players’ individual conscious choices influences their actions points to structural

issues within the NHL institution that creates and fosters situations in which “involuntary reflex actions” occur (Baxter 2005, 296).

Fighting is never explicitly banned by the NHL. Rule 46 in the NHL Handbook deals with all aspects of permissible fighting in the sport. However, no rule exists that says that fighting is prohibited during on-ice games. The closest the rules get to prohibiting fighting is in Rule 46.1, in which they define what constitutes a fight and give the referees “very wide latitude” in how they can deal with on-ice altercations (National Hockey League 2015, 68). There are two aspects of Rule 46.1 that are problematic. The first is that by not taking a stance against fighting, it suggests that the NHL acquiesces to the amount of violence in games. Furthermore, by not explicitly disproving of fighting, it fosters an environment where the players can interpret the lack of the rule as a possible suggestion from the NHL to fight, which creates a dilemma for players who do not want to fight. The second issue with Rule 46.1 is the leeway it gives to referees when dealing with fights. Because this allows for subjectivity in determining the severity of the fight and assessing the adequate penalties, no standard is set for on-ice altercations. Depending on the referee, two fights of equal measure could be penalized differently. This can be problematic for the players because when they do get involved in altercations, they do not know the outcomes or what the consequences might be because penalties are subject to the referee’s individual assessment. The inconsistency in assessing penalties, as described in Rule 46.1, as well as the assumption that because Rule 46 does not ban fighting, implies that the NHL is ambivalent towards physical altercations. This might lead to the implication that players must fight because it is not explicitly prohibited.

The ice of the hockey rink is the dividing line between legal and illegal violence. Rule 46.8 of the NHL handbook deals with the punishment associated with fighting off the playing surface

(National Hockey League 2015, 69). The consequences of this action is, at minimum, a game misconduct. That penalty is more severe than the major penalties typically given for on-ice altercations. This clearly reveals that the ice itself serves as its own jurisdiction. This rule legitimizes the difference that a physical setting can make, and how these different settings affect the actions of the people who cross them. In the case of Rule 46.8 it seems likely that players will fight more on the ice rather than outside of the ice rink because of the less severe penalty. Yet by creating this divide, the lines become blurred as to what is legal and where—which can cause confusion in assessing penalties.

Other rules in the handbook further the idea that violence is institutionalized, and the players are typically unable to avoid it. For example, when two players are involved in an on-ice altercation they are labeled either the instigator or the aggressor. Rule 46.2 defines the aggressor as the player who continues to “throw punches...when he clearly won the fight,” while the instigator is the person who is deemed, by a list of criteria such as first punch, to be the person initiating the altercation (National Hockey League 2015, 68). These definitions are important because they connect to the argument that the rules of the NHL, possibly unwittingly, support both the violence and the normalization of fighting in the eyes of the players and spectators—restricting the choice of the players not to fight. By labeling the aggressor as the winner, it creates a motive for players to fight because, as Justice Kitchen states “[It] is a legitimate game strategy to fight another player” (Tepperman 2014, 21). Fighting serves as a type of social control and a way for the players to police the game themselves. Many teams have players who serve the role of “enforcer,” and part of their purpose is to be the player to ‘drop the gloves’ and fight. These altercations arise because of hard hits or illegal moves on them or their teammates, especially hard hits on skilled players. It has become an unwritten rule that each team has enforcers who are able

to retaliate against the opposing team when needed (Espindola and Goldschmied 2013, 459). Often this is seen in the pairing of a smaller skilled player with a larger player who serves as a deterrent for hard hits on the skilled player. The enforcer, by name alone, serves as a deterrent for any violence against the skilled player. If any violence does occur to the skilled player the enforcer is expected to respond, typically violently, to the antagonist. An example of this is seen in Chicago Blackhawks player Patrick Kane. A skilled player who stands at 5'10" and 181 pounds, he was paired on a line with Bryan Bickell who is 6'4" and 233 pounds during the 2013 Stanley Cup playoffs. Blackhawks coach Joel Quennville placed them on the same line in hopes that Bickell's physicality would deter their opponents from targeting Kane physically, which would allow him to make the skilled plays he is known for. Bickell's response to playing with Kane was acknowledging that "I had to be big and physical, and I think that helped them [Kane] out" (Hedger 2013). By creating an environment where smaller skilled players are paired with someone willing to fight, the NHL has made it nearly impossible for a player to not engage in physical altercations. Any NHL player who is deemed an enforcer does not have a choice of whether or not to fight, since their spot on the team partially revolves around their ability to be involved in—and win—on-ice altercations. The enforcer's presence is there to bring the physicality that the NHL's structure mandates.

Former Los Angeles Kings' player Paul Mulvey is a prime example of how the sport views and demands violence from its players. In a 1982 game, his coach, Don Perry, ordered Mulvey to get on the ice and get involved in a fight that was already occurring. Mulvey refused as he was coming off a suspension, and in response he was benched for the rest of the game and suspended for insubordination. He was sent back down to the minor leagues and would never play another game in the NHL. Although Perry was suspended for his actions, no other team would sign Mulvey

because of the perception that he was not willing to engage in a fight to support his teammates (Tepperman 2014, 4). This event reveals the obligation placed on players to fight, and it also shows that if they refuse to fight the structure of the NHL has the power to punish them and negatively impact their careers. The suspension of Mulvey for refusing to fight indicates that not only is expected of the players but that it is institutionalized by the NHL who allowed Mulvey's suspension to stand.

The NHL fosters a separate legal system that deems the use of violence as acceptable. The structure of the NHL has been developed so that it promotes violence in the sport. It has, on a smaller scale, replicated the United States' governmental structures in its organization of fighting. The legislative branch is represented by the NHL rules and regulations, which in theory controls the on-ice actions of the players. The executive branch, much like the U.S. government's executive branch ensures that the legislation is carried out and respected by the players. In the written code of the NHL, the executive branch is represented by the referee whose duty is to enforce the rules and penalize on-ice actions. These penalties point to the last simulacrum of the U.S. government, that of the judicial system. The penalties and suspensions handed out by the NHL represent their judicial system. By looking at NHL in this light, it becomes clear that the violence of the game is caused by the structural aspect of the organization. By creating a fully functional legal system within, and mostly separate from, the legal structure of the Canadian and American states, it almost completely distances the actions of one sphere from those of the other. This separation creates a setting, the hockey arena, which is extremely conducive to on-ice violence because the legal separation almost guarantees protection against repercussions from the larger legal systems of Canada or the United States. For the players, violence is an inevitable obligation that comes when they sign their NHL contracts.

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Narrative as a Tool
By Jenna Hendrick

Abstract: This piece is the final chapter of a larger paper entitled *A Tale of Time: Why Fiction is Important to Archaeology*. Most current archaeological writing strays from the true purpose of archaeology and is indecipherable to the public, which I argue is a setback of the field and needs to be transformed. Narrative brings archaeology back to what it is supposed to study: the people. Additionally, it is one way in which the public can get a better grasp of the data being acquired by archaeologists. The archaeologists, too, can benefit from both reading and writing archaeological fiction, as it encourages more innovative interpretations and critical thinking.

Narrative as a Tool

Archaeological fiction can act as a useful tool for both the public and archaeologists alike. Though the narrative will not be absolutely true, it requires empirical evidence from multiple fields to create a believable story, thereby consolidating the vast amount of data into one piece in which one can finally see the bigger picture. A majority of archaeological writing is in the form of standard site reports, or creates its own subdiscipline by focusing on one subsystem, such as subsistence or settlement (Conkey and Spector 1984: 23), and hones in on one aspect of a material culture. Examples include antler tipped spears or the wild rabbit in the Upper Paleolithic, providing extensive detail, listing the background materials, methods, and techniques of data recovery and analysis (Gibb 2000: 2). But what does this mean in conjunction with the rest of these people's lives? What did it mean to them socially, culturally, in tandem with other tools and functions? There is not much sense of the *people* that these reports are supposedly

educating us on; there is a lack of the activities conducted on the site or the social dynamics (Conkey 1991: 73). This is what is lacking in the current archaeological rhetoric. They merely show how they analyzed a problem and came to a solution, rather than presenting an interpretation more telling of the people supposedly being studied (Gibb 2000: 2), which such an important cultural device such as narrative can offer.

Such typical accounts also lack humanity, which is disappointing considering archaeology is the study of past humanity. Rarely are emotions discussed (although see Tarlow 2012), or social relations and how they truly mattered to individuals or even groups as a whole. This is, of course, difficult to deduce from material culture, but there is rarely even the hint of humanizing the people who used the materials in question. The absence of emotion creates “an atmosphere of detachment and dullness both to the archaeological process and, transitively, to the human society under study” (Mickel 2012: 108). It was this dullness that originally deterred me from pursuing archaeology; why would I spend countless hours studying one artifact when I am interested in what it meant to the people and how they lived? Objects are the material carriers of human relations (Burström 2014: 67), but this is not how it is presented in most archaeological writing.

The professional writing of archaeologists comes off as an obligation, filling in a template with obscure wording and difficult-to-locate meaning which even other archaeologists dread reading (Mickel 2012:108). Furthermore, the archeology of today is so specialized that even some archeologists cannot understand the cultural terms used by researchers a few hundred miles away (Fagan 2010: 16). If it is tedious and difficult for those in the profession to read, it is completely inaccessible to the general public. There is, of course, a need for professional literature and terminology specific to the field, as archaeologists need to understand each other

(Fagan 2010: 16), but there is little point of conducting the research if it is not disseminated to the public. If public money is being provided for research, the public deserves to know the findings. Even more important, they may be very interested in the research, but cannot seem to comprehend it. Current attempts at disseminating Paleolithic archaeological knowledge to the public through the popular media are disappointing and more often than not romanticized and sensationalized to the point of straying from the truth. Often, only “Hot topics” like alcohol, sex, and treasure pervade the media, but what of what people ate? How they obtained it? What types of dwellings they lived in? These are not popular media topics because the literature is dry and it is difficult to write something exciting if it is not portrayed as interesting in the first place.

Allison Mickel (2012), an anthropologist who supports the use of fiction in archaeology, believes that if archaeologists do not begin using these same media types to circulate their findings, the audience will only ever know the “fanciful and fantastical truths” that are available to them (Mickel 2012: 109).

Mickel cites Jean Auel’s Paleolithic fiction as one of these disgraceful “truths”, limited by a timescale and conversational tone, that has captured the minds of the non-specialist audience (Mickel 2012: 109). And it is true; her novel *Clan of the Cave Bear* (Auel 1980) became wildly famous and has acted as one of the only accessible accounts of the Paleolithic for the general audience. It is also true that it was incredibly fantastical: Ayla, the main character, and Creb, the Neanderthal shaman known as the Mo-gur, could communicate through telepathy for a time; and the Neanderthals were born with the memories of their ancestors, they just needed to be unlocked. I would hope that the general audience would see these two examples as obviously fictitious, but there are instances in which there are actions that could seem to be based on truth. One example is the gender relations in the Neanderthal clan. There is a strict gender

divide between men and women in which women are to be more submissive than the evidence could ever suggest. This way of life is never challenged, though, because the Neanderthals are incapable of change, something Creb is able to see when he looks into the future. It is incredibly difficult to determine gender relations through archaeology and to have made an assumption as stark as this is incredibly bold. One cannot necessarily criticize her for this, though, as even the archaeological writings of the time contained many assumptions and assertions about the “facts” of gender (Spector 1993: 7). Auel argued that she made this decision to show the unchanging culture of the Neanderthal population, that she was merely playing the game “What if?” that authors are allowed to play when writing fiction (Pollak 1991: 298). This is the game of speculative fiction, in which the author fills in the blanks or connects gaps in the record, and therefore expands the realm of possibility.

Her game paid off. Despite some questionable choices in Auel’s piece, she also made some headway in real archaeological interpretations. She has Neanderthals and anatomically modern humans mating, including her anatomically modern human Ayla and a man of the Neanderthal clan, Broud. Ayla gives birth to a hybrid child, which survives and is quite healthy, and then goes on to meet a clan woman who also has a hybrid baby. To the clan these children were seen as abominations, and they were also considered downright impossible by archaeologists. Yet after much research it is clear that Neanderthals and anatomically modern humans mated, and now a great number of the current human population has Neanderthal DNA. Fiction helped interpret archaeological findings and displayed the necessity of more forceful research on a topic lacking in data.

This is a fantastic example of one of the benefits of archaeological fiction, which is the interpretation and recognition of gaps in data. Anthropologist John Terrell (1990) has argued that

narrative is beneficial to both the public and the professionals: it both communicates complex ideas in an interesting and accessible manner while at the same time acts as not only an effective mode of exploration for the archaeologists, but also as model-making that allows the evaluation of different theories (Holtorf 2010: 382). Janet Spector also praised the use of fiction in her book *What This Awl Means* (1993), claiming that narrative was useful for making sense of the past as well as helping us connect with the “thoughts and feelings of the human beings we are actually talking about” (Holtorf 2010: 383). Spector felt very much the same as I did; that archaeologists cared more for the artifact classification rather than the people who had actually made the artifact, of whom little is discussed (Spector 1993: 2-3). This was especially true for prehistoric archaeology, particularly in the 1960s and early 1970s, in which the focus was primarily on the classification and dating of the artifacts (Spector 1993: 3) and not as much on the people themselves. Spector proves her point of the importance of narrative by writing her own short piece on an awl handle found at a Wahpeton Dakota site. It follows the awl’s usage under the possession of a young girl in her pursuit of womanhood. At the end she loses it, which describes its deposition into the archaeological record while also exploring the sense of loss this girl felt for losing a possession that held so much significance for her. Spector changed the awl from a number on a data sheet to a beloved tool that impacted someone’s life. She brought humanity and emotional connection to an artifact.

This is the beautiful thing that fiction adds: humanity. It brings the material culture to life through the lives of individuals and groups. The exact happenings may not be accurate, but it is a possibility that could have happened, another kind of interpretation. It takes the archaeological data one step further by placing it in its original context: the hands of the past people. Not only does it get readers to connect with the people of the past and to think about what life was like,

but it also urges the reader to address their own lives. Cornelius Holtorf (2010), a proponent of communicating archaeology with the public, lists three things that fiction makes us consider in the present day: “1. what it means to be human, 2. who we are as members of a particular human group, and 3. how we might be living under different circumstances” (383). It creates a link between humans across time when the characters exhibit the same types of emotional responses as the reader does, inviting sympathy and empathy for these past peoples, but also leads to important lessons to be learned for ourselves (Holtorf 2010: 388). The reader may begin considering what it will be like in the future when archeologists discover their own material and biological remains (Holtorf 2010: 385), and how they will be interpreted, thus realizing that the interpretations made by the fiction-or the researcher- must be read with a critical eye.

Critical thinking is exactly what archaeology aims to do; its task is to provide the critical voice in society in order to educate about the past (Holtorf 2010: 390). This, too, is what fiction’s goal is: to urge the reader to think critically about the story presented in order to make connections and realizations about themselves and their society. How, then, is this different from archaeology? Fiction unlocks varied perspectives (Myambo 2016), and when the fiction is about archaeological finds, it unlocks varied perspectives on those finds. Fiction develops the critical mind of both the archeologist and the non-specialist reader: the archeologist must determine whether the presented story is “true”, and if not, if it was written that way because that is how the archaeological rhetoric was interpreted by the author; and the reader must also pay close attention to what may or may not be “true”. There is the real concern that there may be ample confusion on this distinction between where the hard data ends and where the author’s imagination begins (McKee 2000: 14), but this is what enhances the reader’s critical thinking skills and offers opportunity for future research by archaeologists.

Despite the bountiful evidence of the many potential benefits of fiction's marriage with archaeology, there is still much backlash. Especially within academia, the writing for popular audiences is viewed as a disadvantage in hiring, tenure, and merit committees (Mickel 2012:117). It is seen as a hobby for which little effort is needed; all you need is an imagination. But that is not the case. It requires quite a lot of logic to piece together the immense amount of data available into a coherent picture of everyday life. This is where the power of the piece comes from, not the events of the story (Fagan 2010: 14). Critics get too preoccupied with the events not being necessarily true, but that is not the point of having written the fiction in the first place. The point is to get people thinking critically about the data you have presented while at the same time reaping the benefits that any piece of fiction offers (Holtorf 2010: 390). The minute details of fiction must necessarily be fictitious (Holtorf 2010: 390) as there is a lack of data to provide clear events and scenarios, but that does not mean the entirety of it is false or inaccurate. Proper archaeological fiction is a "compelling narrative based on the best scientific data available" (Fagan 2010: 15), so while the scenario may be fictional, it is based firmly on the archaeological evidence available (Fagan 2010: 18). I see no issue with this, especially when it is used to enhance the archaeologists' duty to the public of disseminating their research and to generate interest in the field as a whole.

There is the understandable worry that these archeological facts may get fudged in an attempt to better the plotline. The book and its author are, unfortunately, commodities, that are judged on their contributions to the media conglomerate (Fagan 2010: 50), and nowadays most authors will do whatever it takes to make the most money. If anything, though, this may create such a niche in the literary world in which only the most accurately compelling novels would succeed. This would, of course, depend upon the readers' value of accuracy, but one could

assume that the most accurate details would create the best stories. It is said that one writes what they know, and that is because it is easier to create more engaging and complete worlds if the details are already there, rather than world building from the ground up. Take for example, once again, Auel's series; after the first installment she conducted an incredible amount of research and even did some experimental archaeology and living to create a vivid story. It was this accuracy that shone through her writing and made it popular; the knowledge created a compelling look at life in the Paleolithic. Though she is not an archeologist herself, she still did an excellent job relaying the data available. According to Brian Fagan, an archaeology professor emeritus at UC Santa Barbara, in an ideal world it would be archeologists writing these stories, as their passion and expertise could shine through to create an exceptional piece (Fagan 2010: 21). Unfortunately, only a handful of archeologists have experimented with this type of writing (Fagan 2010: 15) and it is usually as an academic exercise rather than an attempt at reaching a wider audience (Mickel 2012:109).

I argue that non-specialists are capable of writing good archaeological fiction. Elizabeth Marshall Thomas' Paleolithic fiction pieces, *Reindeer Moon* (1987) and *The Animal Wife* (1990), are highly descriptive and convincing, despite the fact that she is an ethologist. She makes the animals of the novel come to life and for this time period the animals would have been a very important part of the humans' lives. They would have examined the animals with the same detail that Marshall Thomas provides, making the aura of this world that much more vivid. She also had the experience of living with the Ju/wa Bushmen of Nyae Nyae in Namibia, a hunter-gatherer group (Fuller 2006). *Reindeer Moon* and *The Animal Wife* are loosely based on this group (Thomas 1990: 287). Due to her personal experience, she is able to go into great depth with the workings of a hunter-gatherer group, though the personalities, culture, material goods,

and religion are fictitious (Thomas 1990: 287). Though she did not have the archaeological background to create these stories, she still used her own observation and research to come up with an incredibly vivid account of the Paleolithic.

A story like Marshall Thomas', which is not based on any particular archaeological findings (unlike Auel's which incorporates various discoveries), runs the risk of discounting a tool that engages the public in the first place: artifacts (McKee 2000: 15). This is unfortunate, considering that one of the benefits of archaeological fiction is to gain interest in the facts of archaeology, which is through the artifacts. This does not mean, however, that fiction like Thomas' is undeserving of attention. Despite the fact that her account may not be based on any one archaeological finding, it is still an interesting and believable look into what life may have been like and does not contain any sensational or fantastical characteristics, aside from the role of spirits. Considering that Thomas' work was based on a documented tribe, her fiction not only increases interest in the study of the Paleolithic, but into the study of different social groups in general. This is incredibly important to the increasing public interest in the field. Since it is a good story, people are more inclined to read her other books on the subject, as I had after reading *Reindeer Moon* (1987), perhaps going beyond fiction. Not only does her literature gain interest in the field of Paleolithic studies, but by portraying lives different from Western culture, fiction can act as a means of gaining admiration for other peoples' ways of life distant in both time and space (Terrell 1990: 7).

Not only would narrative lead readers to gain interest in various societies, both past and present, but readers of a variety of societies would be interested in the fiction as well, widening the scope of the dissemination of the knowledge. Since the beginning of speech, narrative has been utilized by all to pass on beliefs, folklore, and skills from generation to generation (Fagan

2010: 15). How is archeological fiction any different? “Narrative is the process through which humans comprehend and give order and expression to experience through time” (Clark 2005: 81); it is essential to human culture, and for a field that studies human cultures it is appropriate for its information to be disseminated in the same manner. It is a form through which our understanding and structuring of the human past is made possible (Clark 2005: 81). When one studies history in school, it is presented in chronological form with a beginning, middle, and end, all of which are necessities in a story. Whether explicit or not, there are also heroes and foes, conflicts to overcome, conquests and achievements, triumphs and defeats (Terrell 1990: 4), working to create the situation we live in today. The lives of people in the past are important to our own history and can teach us lessons about our situation and ourselves in the present, which is why it is so important to learn these histories. Fiction adds characters to play out the scenarios we have already addressed in our textbook narratives, including embellished scenes along the way to emphasize certain aspects that are glossed over in the typical literature. Fiction, then, enhances the narrative of the past that we already have.

In the quest to enhance the narrative of the Paleolithic through fiction, research on all facets of life is required: subsistence activities, environment, clothing, social relations, ritual, etc. and such research encompasses numerous kinds of evidence, including academic and general works; material obtained from interviews with other researchers and colleagues; insights from visits to museums and sites; and personal experience (Fagan 2010: 97). The creation of such a narrative requires just as much precision and logic as formulating and testing hypotheses does if one is to build a story with a believable plot and dialogue (Gibb 2000 3).

One of the biggest obstacles of creating such an accurate piece is the sources of collected data. Though my goal is to show the importance of fiction to archaeology, much of the available

research is ethnographic work. The archaeological data for subjects such as some aspects of subsistence are incredibly rare, as much of the material is perishable and there has been little focus on activities conducted by certain subsets of the population that are seen as unimportant. While the ethnographic evidence is an excellent way to see how similar groups of people live, it is by no means completely accurate in describing past peoples. Recent hunter-gatherer groups are not living artifacts; their cultures have evolved, too. Depending on the length of the piece, there is also a limit to the research included. For example, a short story cannot expand on too many lines of evidence because of the space constraints, limiting the scope of activities and social relations depicted. This ignorance results in an incomplete view of these peoples' lives. Short stories also required a fast-paced plot, which unfortunately contributes to the popular but unlikely idea that Paleolithic peoples were always facing danger. Yet another setback is that of one's beliefs. They are difficult to stray from and can become unintentional assumptions about these peoples' ways of life. Religion and gender roles are good examples of this, as both can subconsciously be based upon our current society, as it is all one knows.

Despite these setbacks, I believe narrative can breathe life into a site or artifact and all of the data so rigorously collected. Though fiction is often looked down upon by specialists, it in no way dumbs down or vulgarizes the academic research (Holtorf 2010: 383), but presents it in a different manner. It pulls together facts from various sources and fields into a coherent sense of cause and effect when the scientific theory's reported facts and inferences are deficient (Terrell 1990: 7). The goal of using fiction for this purpose "is to get closer to the people in the past who left behind the evidence and to the people in the present interested in what we find" (McKee 2000: 15). Fiction gets us closer to people in the past by highlighting the "subtleties of social relations overlooked in more conventional analyses" (Gibb 2000 5). These social relations are

often the minute details created in the author's mind, but they are based as much as possible on the available research and add to an accurate and truthful representation of the "time and place of cultures and events past" (Gibb 2000 2). I am not calling for the required addition of fiction to archaeological studies, rather I aim to draw attention to the benefits it can provide to the field. Fiction can take research one step further by giving meaning to the observations (Clark 2005: 82) as well as making the necessary move of archaeology beyond the academy and into the broader public (McKee 2000: 15). By including fiction into the discipline of archaeology, the understanding of both the researchers and the public can be enriched through critical thinking while simultaneously enhancing the research, making it an incredibly useful tool for everyone involved.

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Status and Volunteering Policing Through Political Oratory and Social Life Amongst a First Aiders Group in Beckton, East London, UK

By Giuseppe Innamorato

Abstract *“Despite the combination of different factors such as language (medical terminology), training (know-how), and embodiment of the Ethos of the charity constituting the core element of a First Aider, their chauvinistic policing can lead to the increase in status of a member in respect to others. The endorsement of linguistic and non-linguistic traits in the transmission of training and fulfillment of volunteering tasks is a marker of status. As the notion of volunteering varies among volunteers, the granting and acquisition of status unfolds within two opposing notion of values. Therefore, the setting of the social core values and the political core values shapes the boundaries between volunteers within the political and social domain. However, as the notion of volunteering is dictated by political values, it detaches from the social one. Therefore as the political core values can be re-enacted within the organization of particular social events, these are reconstructed within a distinctive form of organizational socialization which in turn increases the status of those volunteers who take on the role of organizational members.”*

Introduction

The First Aiders (FA) are the first qualified persons attending medical casualties during pre-scheduled events and occasionally operating emergency transport to Hospitals. The Beckton⁷ division covers an area of 1 mile within their base and provide services to the community during public and private events of a local and national nature. FA are at the bottom of the ‘life support chain’ and triage, and so operate in conjunction with the Local Ambulance Service (LAS) where and when these would find it hard to reach the casualty area within the legal reasonable time for urban settings. FA are not involved in medical emergency on calls as this is within the competence of the LAS even though the two can work as part of a team during events requiring multi-agency intervention, such as a natural disaster or mass destruction. FAs provide services to local and national public events such as boxing or football matches in order to raise funding to pay for staff training and uniforms. Volunteers receive free training and official certificates of qualifications, as well as a free uniform as long as they keep their membership. In order to retain membership, volunteers are required to participate in a minimum of 50 duty hours per year and attend a yearly competence test. Part of the process of becoming an FAV is setting the boundaries of operational competence, responsibility towards patients, the limits of basic life support techniques, and the importance of Health and Safety regulations. This is achieved through the delivery of training lectures and scenario simulation in order to acquire the right skills to intervene during a casualty on duty, as well as in any other circumstances. FAV members are aware of the delicate role and intimate levels of contact regarding members of the public that volunteers are exposed to. That, in turn, grants them a high level of respect on a national level. In order to provide a safe service within the community, every FAV is required to undergo a Criminal Records Bureau (CRB) check, along with reference checking and attending three full training days at the central division. The full process can take several months.

⁷ All names, locations, times and other identifiers have been changed in order to protect the anonymity of my research informants. as per subsection 2 of the ethical guidelines of the Association of Social Anthropologists of the UK and Commonwealth (ASA)

Between 6 and 9 white young British professionals are sitting on a long rectangular table made of 8 smaller folding units which are set up weekly for the FAV meetings by the concierge of a former historical building whose ground floor had been converted in to a school gym. In less than 10 minutes resuscitation mannequins, automated external defibrillators (AED) and first aid kits are taken from a personal locker and laid down on a gym mattresses, ready to bring to life scenario playing. Occasionally, a sole projector or a laptop is used if the training session focuses on lecturing only. In general, a mixture of theory and practice completes the evening sessions.

THE SETTING

This group of FAs is the Beckton division of a national registered charity of FAV responders. The meeting is usually held on a week day evening, when volunteers usually gather after work from nearby offices, hospitals and universities.

From the outside they are presented by an austere building, which reveals a tacky interior featured by dusty curtains and nicotine stained windows. The darkened door handle rings and the plough at the doorstep of entry shows the longstanding signs of wear and tear, and an overall lack of modernisation. Nevertheless, the place is kept minimally tidy retaining the smells of an enclosed place. People are chattering, filing and discussing in middle class politeness private events amongst weekly duties.

The Beckton division is considered a division *sui generis* as it gathers different types of individuals who add a particular but diverse element to the group, which otherwise would be composed of a consistent number of retired personnel—as happens in most FA divisions across the UK.

Daniela is employed as a broker for an insurance company. She joined the FA because she was looking to meet people and do something good for society; she recently divorced and so decided to take some time off the huge commitment imposed by her former role as a Head of Division. She had been covering this post for 5 years until the New Year, when she decided to step down because of management issues with the central division. She has volunteered as an FA for over 10 years and is occasionally called “*Mum*” by Mike. She is also in charge of welcoming new recruits and introducing them to the joining procedure. She participates in local duties as much as national duties but she would prefer to concentrate on the former because they are very close to her home.

Jack is an American expatriate city worker who enjoys devolving his spare time to the charity with other likeminded professional people. He is also the Radio Officer.

Roger is a young IT professional who decided to join the FA because he was looking for new friends, a relationship and also wanted to get involved in helping people. He has been in the FA for over 4 years where he also found his current partner. He is also the Staff Officer.

Mike is the Nursing Officer; he is also a fully qualified nurse and has over 4 years of experience as an FAV. He became the interim Unit Leader after Daniela stepped down. He refused to become the leader by default and invited anyone else to take this role. He occasionally trains new recruits.

Charlie is the training officer. He joined the FA as a cadet at a young age and then returned again two years ago. He is a successful IT professional with a fast track career within the FA association. He became the training officer in less than 2 years. He remembers every part of the *Oxford Handbook of Accident and Emergency Medicine*, which he calls ‘*bible*’ and his aim is to leave his successful career for the less paid but more emotionally rewarding job as a

paramedic. He is always the first to arrive and the last to leave. Whenever he enters the room, he starts talking about cardiac arrests or epileptic shocks. He was an FA cadet in his teens.

Paul is a medical student in his 30's who volunteers in between exams and during study breaks. He usually aggregates a bulk number of hours to later disappear for a few months.

Maria works as a nursery assistant; she is Roger's partner. She is in charge of allocating duties and general admin. She is also called Duty officer.

Methodology

Participant observation

The fieldwork for the dissertation was conducted over a 5 months period using grounded theory (Emerson, Fretz, & Shaw, 1995) approach along with the theoretical methodological framework of Corbin and Strauss (A.L. Strauss, 1998).

In the making of this project, the method of participant observation has been the most widely used. As a prospective member, I was placed on a 12-week induction program where I was able to participate in local duties only as an observer. In order to facilitate the recognition, I was asked to dress in black trousers, black hard sole shoes and a white t-shirt matching the participants' uniform with the exception of wearing official label badges or charity patches. I soon realised that even though my dress code facilitated me in carrying out participant observation without being disruptive and attracting the attention of onlookers during duties, the opportunity for this never occurred. Therefore, my interest to test and develop my capability to handle stressful situations, in addition to the ability to act and communicate assertively under pressure—and, most importantly, acquire basic first aid skills—never got tested. Conversely to my expectation, my keen interest towards emergency and trauma assessment was defined as '*red mess*' [Maria] and could have prevented me participating to duty.

As a result, this dissertation is based on data gathered mostly from attending training sessions, social events and also twelve local duties. It should be noted that prospective members are not allowed to participate in national duties, this requiring a higher level of competence in terms of multi-agency operational management. Nevertheless, I attended social events, such as the Christmas evening meeting and occasional dining out. This research has been carried out with the aid of neither informers nor a gatekeeper. After few weeks, and in order to establish rapport with my research participants, I decided to volunteer for making coffees and teas, as this gave me an opportunity to greet them while people cracked jokes about what to expect from weekly duties and discussed their perceptions about the different places and people they met.

While the division counts up to 20 members, of these only 10 attend regularly, of which 6 constitute the 'regulars' pool. These 6 are also called 'seniors' as they have volunteered for more than 3 years and have also attended the relative training throughout this period. In this project I will use the term 'member' to indicate senior member while 'new recruit' will define the prospective member.

Following the dismissal of the unit leader in early January, the division suffered the loss of a huge charismatic figure and as a consequence, some members refused to attend a few sessions. It was at this point in time that I was questioned by my research participants regarding the scope and feasibility of a project which I believed was going to be a stepping stone to a career in medical anthropology, and in particular anthropology of the emergency medical services. More specifically, I was warned by Maria that the group wondered if they were an

inappropriate recipient due to the current internal climate of demise. Informed by this event, I managed to carry on my research and attempted to give justice to my data without compromising the role and social responsibility of research participants.

Formal interview

In attempting to establish rapport with research participants, I had the impression that even though I had been allowed to carry out research, this did not result in full collaboration from every single member. In one case, when advancing my requests for a formal interview, I was refused and this was labelled as an attempt to gain “*Anthropological gossiping to be sucked in for your project*” [Mike].

Still, I managed to carry out one semi-structured interview with Daniela. As she had volunteered for the longest period within the group, I believed my findings would inform, at their best, my understanding of the process of transformation happening within the division.

Informal interview

Due to the hardship I experienced in trying to manage a formal interview, I resorted to talking to my research participant before and after training sessions and attending duties. On local duties, the interaction between FAs and members of the public is limited to giving directions to the toilet or the exit. On one occasion, Paul read a 400-page fiction book during a whole afternoon duty. In fact, during a local boxing match there was no work to be done, which allowed me to gain an insight into individual members’ desires, expectations, and personal reasons for joining the FA, as these failed to emerge during the local weekly training sessions due to the intensive training regime. I carried out one semi-structured interview with Roger during the local boxing match. Although I was aware of some of the dynamics of which Roger had been telling me, this informal interview helped to strengthen my understanding of the inner logic and internal dynamics between the different level of hierarchical stratification existent and the way this might eventually shape the attribution of status.

THE JOINING PROCESS

However, the process by which a prospective member comes to receive a uniform is more than just a mere bureaucratic event. Although, I was told that the Beckton division was a quite unique division, with its mixture of different types of volunteers ranging from different ages and professions such as IT technicians, bankers, city workers, medical students and nursery professionals completing the joining process, and it involves the partial standardization of attitudes towards casualty handling and dealing with members of the public.

The charity is hierarchically structured according to appointments, and rank is awarded by the central division to an individual who distinguishes themselves through dedication to the cause of being an FA.

INTRODUCTION TO MY THESIS

Although the group shares a common interest in providing First Aid care to members of the public, there is no single mechanism that underpins the collectivity of the group in toto. I will argue that the process by which new members are introduced to the life of an FA is controversial and affected by a persistent dichotomy between the formal and the informal. These two spheres unfold within the granting and acquisition of status, familiarization and usage of specialised language, construction of the notion of volunteering, and the organization of social events. Firstly, I will prove that language is a marker of the boundary between the FAs and it affects the way status is awarded. In doing so, I will use Bloch's (M. Bloch, 1975) ethnography on Merina Council as an example of political oratory in the negotiation of conscious exercise of power between a given speaker and an audience. In addition, I will inform my findings with Bourdieu's (1991) work on the source of ritual power in speech acts. In this respect, I will show that either formal language or informal language (gossip) play an important part in the elaboration of claims of status.

Secondly, I will elaborate on a pivotal dissimilarity between the constructions of 'political' and 'social' core values of FAs and how this in turn shapes the concept of status.

Thirdly, I will investigate group members' construction of the notion of volunteering and the extent to which this legitimizes their presence within the charity. In doing so, I will draw upon Handy et al (F. Handy, 2000)'s theory of volunteering.

Finally, I will prove in the organization of social events among FAs grants status to those volunteers who take on the role of organizational members according to the findings of Haski-Leventhal and Bargal's (Haski-Leventhal & Bargal, 2008) ethnography.

The conveyance of the ethos of the charity to new members is reached through the organization of specific social events within the construction of a particular form of organizational socialization.

THE LANGUAGES AND POLITICS OF AN ANKLE SPRAIN

This chapter examines the influence that speech patterns have in the construction of boundaries amongst volunteers. Among FAs, the acquisition of medical terminology and the usage of acronyms is part of everyday life. Nevertheless, a distinction can be drawn between the functional usage of acronyms, the acquisition of sufficient medical terminology for operational purposes and their persistent extensive recalling. I found that while the former is opportunistic and is bestowed on every member, the latter is constantly adopted by the emerging Training Officer—namely, Charlie. During training sessions led by Charlie, the use of formal language is extensive. When introducing symptoms, conditions, diagnoses and prognoses, the least known term would always be preferred to its more common equivalent. More specifically: adequate respiratory effort rather than regular breathing, or cyanotic rather than looking pale, or hypovolemic shock rather than shock from severe blood loss. Charlie would also pose random questions to the audience which he wanted to be answered, recalling the most appropriate terminology. Although handouts might be distributed at the beginning of the lecture, the audience is told not to read them because he complains that people would not listen to him. Moreover, he would give a full description of any legislation directly or indirectly affecting the FAV. This is a typical conversation between members:

“The reason for the new procedure regarding the CRB check is the introduction of the I.P.C.⁸ act 2008. This is a new and unfortunately little known procedure which should prevent child abuse and protect minors better” [Charlie]

He then looked at Mike with an expression of reproach mixed at resentfulness.

“I was just explaining the reasons for a better check after Victoria’s⁹ case and the introduction of the I Independent Childcare Prot...” [Mike]

Charlie impetuously interrupted again, this time straightening his back and adopting a sumptuous looking pose before saying:

“It has nothing to do with Victoria’s case...the I.C.A.¹⁰ 2008 list of organizations does not cover the FA but we at the FA decided to adhere to the code of practice as outlined by our in-house new guidelines in regards to improving child abuse prevention to which we subscribe even though we do not have to”.[Charlie]

I infer that the continuous usage of formality in language is a distinguishing feature of the Training Officer’s attitude. This persistent element of formality informed my research regarding other volunteers’ reactions to the Training Officer’s constant recall to legislation and furthered my scope of enquiry. In this respect, I questioned my research participants as to whether the acquisition of medical terminology is imposed for the benefit of possible future communication between FAs and local ambulance crew when confronted with life threatening casualty. The response of senior members was unanimous:

“The LAS people don’t expect us to know all that, they are used to all sorts of things. We need the basics to communicate.” [Roger]

Nevertheless, the recurrence to formality in conversation is not limited to lecturing only, but embraces the whole range of activities of the training session of an FAV to the extent of a full embodiment of displays of status. This event should enlighten the way I was introduced to Charlie. In the middle of the fourth evening a young, white, smartly dressed, skinny male in his 30’s entered the room. He did so whilst jumping on his right leg and holding the left leg in the air, paying close attention to his left foot, covered with bandages.

As he’d been away for a business trip to Japan, he was acclaimed with greetings and a mixture of surprise by everyone.

Mike, laughing, asked Charlie, *“Why haven’t they given you a pair of crutches?”*

⁸ Independent Childcare Protection Act 2008, also known as Children and Young Person Act 2008.

⁹ The Victoria case is often recalled as an example of misconduct operated by the CRB in screening for potential volunteers. The episode became a scandal when it was revealed that the vetted person had been charged for murder without this being disclosed on the CRB certificate.

Charlie, who was about to sit down, leaned with his arms on the table, stood upright and looked around at every single member starting from Mike, to Jack, Loren, Daniela, Miranda, Maria and Roger and with an assertive, clear and slightly louder than usual tone said:

"I am not going to go to hospital for an ankle sprain, I am a member of a Public Safety AgencyYou wouldn't go to a hospital for this, the NHS is too busy" [Charlie]

In this speech act, the character of '*performative utterance*' (Austin, 1978) is outspoken by belonging to a publicly recognized body (charity) defined under its re-elaborated definition of '*Public Safety Agency*' (PSA). In delivering the message that volunteers are part of a PSA, and that as such they should not constitute a burden for the National Health Service (NHS), Charlie broadcasts the message of being above mere volunteering for the sake of goodness, as other volunteers claim to be.

Bloch's (M.Bloch, 1975) ethnography of political oratory in Merina councils suggests that strategic politeness and formalizations of speech have the effect of substantiating what otherwise would be a mere change in the form of communication. Similarly, in Charlie's speech acts, the escalation drives the FA from the volunteer dimension to the charity and finally to the highest institutional medical resource (NHS). The combination of linguistic forms such as vocabulary (medical terminology,) limited sources of illustration (the Oxford A&E or the "Bible"), limited syntactic forms ("we as FA" or "It has been") and non-linguistic forms such as fixed loudness patterns added to synchronised breathing (the ability to hold one's breath between sentences without slipping a word) feature Charlie's repertoire of "impression management skills" (Goffman, 1959).

In Merina, political oratory speech acts invest language of a higher status as merged from the ancestor's will. Similarly, Charlie's language is embedded with a sense of belonging to a formal institution, which invests the volunteer with a genesis (choosing to become a volunteer), formal belonging (charity), up to the highest level of informality, institutional bodies such as the NHS (medical authority). A combined usage of posture, timing and limited grammatical usage, invests speech acts of a character of authority as if guided by a moral imperative code of conduct, with the effect of a huge constraint on the listener's possibility to debate in accordance to this politeness code. Puzzled by his singular behavior, I revolved to the rest of the group to confirm my findings. I found that the physical embodiment of an FA, i.e. the duty to recur to self-medication in order to avoid becoming a burden for the NHS, was not acknowledged by any other members as a standard practice but, conversely, experienced with a mixture of irony and astonishment.

By the middle of my research I noticed that, while prospective members never complained, there were discrepancies in the way senior members saw the idea compared with the Training Officer's stance.

Maria and Roger have commented on the uselessness of extremely complicated words that are hard to remember and misleading for new recruits, even though these instances are never considered by the trainee.

"Oh gosh, why don't you just keep it simple?" [Maria]

I infer that Charlie's attempt to monopolize the audience by means of political oratory fails to succeed. I shall be concerned with proving that during training sessions, senior members

refuse to answer Charlie's most simple questions as an evidence of misrecognition of his authority. Bourdieu (Bourdieu, 1991) argues that the collusion between audience and the speaker is the very source of verbal ritual rather than the words uttered. The source of symbolic power is to be found in the process of recognition and misrecognition in regard to the medium. It follows that for senior FAVs refusal to answer a banal question on basic first aid posed by the Training Officer signifies a denial to function as a medium through which his authority is ultimately enforced with the effect of emptying the verbal ritual of its '*illocutionary force*' (Bourdieu, 1991)(ibid: 107). For FA members, the refusal to collude with the Training Officer has the effect to make his performance untenable while undermining the 'collective representation' of an (Goffman, 1959) setting the first step towards the construction of an alternative of in-group concept.

In opposition to Charlie's public performance and formal language, senior members would gossip about duties and problems encountered whilst volunteering. The notice of a 'job' spotted by a volunteer would be whispered between training session breaks or when setting up the equipment. Although these episodes were emphasized during Charlie's absence, during his lectures they were relegated to take place in sociofugal areas such as the refreshment corner. In this respect I found it very advantageous volunteering to make coffees and teas at the beginning of the training session.

End of training session:

"You know what? Jack spotted a viral infection and when they got to the A&E it was confirmed by the doctors" [Miranda]

For senior members, the mark of prestige is skillfulness in the diagnosis of prospective casualty even though this is never blatantly advertised. This, in turn, awards status.

AN ANTHROPOLOGICAL INSIGHT INTO THE MEANING OF SELF-MEDICATION

I found that the general attitude towards the practice of volunteering reveals a set of practices and a mental disposition that defines also, where possible, the boundaries of symbolic embodiment. In the case of one volunteer, these boundaries are defined according to a strict protocol of rules, which, even though they could be thought of as setting the mere role and function of a first aider, result in a transposition of actions and intent onto a deeper level of engagement. Being a volunteer is therefore not only the result of the acquisition of a set of skills to be applied outside the body (to patients), but a whole set of medical consciousness involving the same First Aider's body. In recurring to self-medication, an FA displays a conception of the body as a '*bounded system*' (Douglas 1966), which is linked to the mission of providing medical care to members of the public as much as refusing to be the recipient of unnecessary medical attention. As a result, the same concept of volunteering is at stake and embeds FAs actions with a deeper and wider range of responsibilities and taboos. It follows that the body of an FA volunteer is in turn reconstructed as the embodiment and "*source of symbol of complex structures*" (Ibid: 142). Far from applying this concept to the rest of the members, I state that for Charlie, being a volunteer represents the setting of an equally interchangeable, compassionate attitude when at the service of patients or when being a patient of another emergency medical care provider, this allowed in extremis. Conversely, I didn't notice any compassion towards other members of the same division, whether they were new or senior in the delivery of a training session.

Nonetheless, I have not witnessed any incident when Charlie had to intervene. However, the embodiment of 'core political values' are in turn forcibly imposed on the rest of the group by a whole set of linguistic attributes culminating in verbal rituals along with the display of extreme devotion such as self-medication.

According to Zahavi's costly signal theory, it is the relationship between a signal and its cost that makes a signal reliable in so far as it handicaps an organism in a way that proves its authenticity (1997). In this respect, the reliability of FAs signalling is proven by the recurrence to self-medication as an example of skills mastering, along with the full moral commitment to the ethos of emergency medical care.

SOCIAL AND POLITICAL STATUS AMONGST FIRST AIDERS

In this section, I will expand on the usage of language proving that even though status can be achieved by means of political oratory, this can also be granted by gossiping. In fact, while the former is formally awarded by central division ranking promotion, the latter is granted by group members only.

I shall now define a distinction between interests and values among FAs. These are on one side, the willingness to contribute to the creation of an unpretentious environment where the transmission of first aid techniques is delivered within the limits of its range of applicability, and on the other side their chauvinistic policing for rank advancing. I will prove that while the former invests the volunteer with a social dimension, the second invests it with a political one. This, in turn, operates a distinction between 'political core values' and 'social core values'.

Ambition for rank is expressed by volunteering extra hours at central division, constant recall and implementation of directives regarding the joining process, promotions of occasional V.I.P¹¹ ceremonies, adjustment to changes in the management of volunteering and legislation regarding police checks on volunteers and persistent updating of training manuals as ordered by the central division. I define the aforementioned as the 'core political values' of an FA. These values are persistently recalled during training lectures run by Charlie and have had the effect of isolating himself and new prospective members from the rest of the senior FAs, who prefer and seek moments of sociality, fun and training within the association. However, all members gain satisfaction from exceeding diagnosis expectation during duty. In fact, although it occurred to me that amongst senior FAs, advancing a higher level of medical diagnosis from the one expected by the degree of competence of an FA, when this is confirmed by the Accident and Emergency department of the hospital, it is an event that grants status, these were never blatantly advertised but internally broadcasted through gossiping rather than speech acts. Even though it has been argued that the "*Display of membership through the telling or keeping of secret 'is both a way to establish mutual interests and a way of advancing in rank and power'*" (B.L.Bellman, 1984; Power, 2000), I infer that, amongst senior FAs, gossiping is limited to sharing mutual interests without the ambition of advance in appointment. Gossiping among senior members is never conspiratorial, but limited to recreating a sense of equalitarian sociality.

Here, gossiping aims to reinforce the in-group informal character in opposition to the homogenous formality of the emerging Training Officer, and it does not result in an attempt to subvert his leadership. While for senior members, language is reconstructed as an informal mechanism (gossiping), awarding in-group social status, for the Training Officer, language is the

⁴ Members who had provided more than 30 years of service

medium through which formal political rank is imposed upon the rest. Moreover, around New Year, the most senior member of the division decided to step down due to a conflict with the central division where she:

““had this image of a Blondie incompetent which I do not share” [Jack]

As she had been a long-standing figure in the charity, her indirect dismissal created a sense of insecurity in other members, whose degree of commitment became questioned by the central division. Subsequently, the whole group became affected by social numbness. I then decided to participate on local duty only where these would have given the opportunity to meet volunteers who were more disaffected by the recent events.

A sense of recreation of identity was sought elsewhere

Jack to Daniela: *“I am very sorry for what happened to you, I will have the pleasure of going on duty with you with some other division. They shouldn’t have done that”*

Daniela: *“Some people think we are a family hmm.. others... well, they don’t. They can suit themselves, I just got divorced. I can’t be arsed.. “*

At this stage of my research, the Beckton division of FA was invested by a crisis of *“dramaturgical loyalty”* (Goffman, 1959) in regards to the Training Officer. Training sessions are now deserted by senior members and attended by prospective members only. Nevertheless, the long speech acts became more and more consistent as more new members turned up at the meetings. I then asked Charlie about the latest development in the management of the division:

“This is a new year, with lots of new people who soon will be in uniform, What a nice day”[Charlie]

Mike replied, *“ You seem like that guy from the TV. The one on the Police Academy. What’s his name...yeah, that one, yeah.”*

Coinciding with the dismissal of the Head of Division, the Beckton Division of FA had a new Training Officer appointed by the central division. As the ever subdued and inconspicuous moments for socialization and self-counseling amongst members became rare, training would increasingly focus on an intensive training regime program. Therefore, I came to the conclusion that this particular gossip was not political in its aims and was designed to strengthen in-group boundaries between senior members rather than challenge the training officer position.

Conversely, Charlie’s formality merges the concept of volunteer in to a political dominion. Although I have not witnessed any event where FA intervened, listening to gossip allowed me to draw a conclusion between the ideology of the ideal FA type propagated by the Training Officer and the reality of having volunteered according to other senior members’ accounts. In his absence, senior members enjoyed shared moments where experiences, drama and contradictory feelings towards patients could be rehearsed far away from the official scene of ‘being at the service of the public.’ These were in turn shared with prospective members. While the training sessions focus on the ideal FA type ability to remain impartial at all times, listening to members

chatting and gossiping revealed a more dynamic and human aspect of being an FA and their relationship with patients.

During these marginal events, interventions were defined as ‘jobs’ and were mentioned according to the interpersonal experience of the FA rather than under their sole medical perspective. Patients were also defined at times as ‘*attention seekers*’ [Jack] if the volunteer came to the conclusion that symptoms were more of an emotional type than medical type.¹² On these occasions, volunteers cracked jokes and demonstrated a sense of conviviality and camaraderie. Recalling events, Jack mentioned his main reason for attending local duties (Boxing) such as watching the pin up girls during the round breaks:

“We should look for the fight club, they have the best girls, ...they are picked up from the Lap Dancing club, a local strip club a few blocks away....we should check her pulse, she looks healthy, just to make sure” [Jack]

I argue that language is the medium by which FAs define the boundaries of access to status whether this is formal hierarchical status such as ranking or equalitarian social status such as belonging to the ‘family’.

BEFORE AND AFTER VOLUNTEERING: THE MYTH OF HEALTH CARE PROFESSIONAL

I joined the FA because of a personal interest in gaining and testing the appropriate skills to face potential life-threatening situations. I questioned myself if I was ready to commit as much as Charlie. It was during the process of conducting this project that I reflected upon the fact that I had no previous experience in medical emergency, as well as having a strong reaction to the sight of blood. Impressed by Charlie’s commitment, I wondered what could have possibly invalidated the following statement: “*the participation that the fieldworker gives is neither as committed nor as constrained as the native’s*” in Emerson *et al* (1995), and if so, what could possibly be demanded from an anthropologist. So what does it mean for the members of the Beckton Division of the FA charity to volunteer?

Although the reasons for joining the charity are very diverse, I have isolated two main categories. City workers who approached the FA to do something fun and helpful and eventually meet a partner, and younger medical students who wanted to do something fun with the idea of enhancing their future career in the field. In general, my research participants mentioned the ‘sense of responsibility and achievement’ [Daniela] gained from acquiring the know-how to deal with situations of distress deriving from a huge sense of hopelessness caused by having witnessed someone suffering from a heart attack and not knowing what to do. Nevertheless, seniors and new volunteers stress the fact that they ‘were looking for something social’ and wanted to eventually meet friends and/or a partner in a safe environment as well as doing something good for society especially after a long day at work.

⁵ I found that, In line with Mondragon et al (L. Mondragon, 2008) fieldwork on an emergency room at the General Hospital in Mexico City, my research participants were reluctant to treat patients under the influence of alcohol if symptoms were deemed to be caused by excessive intoxication. It should be noted that in these discussions never mentioned names and places linked to patients or relatives of patients.

"I told you I was bored of my job and I want to do something fun!" [Ronchy]

A different picture from the Training Officer:

"When you join the FA you are a volunteer because you choose to, when you leave you'll be a volunteer again, but in the middle you are not!"

By means of emptying the concept of volunteering of its character, or hobby, or as a relaxing activity to be pursued after a long day at work, Charlie increases the cost to the volunteer rather than the benefit associated with feeling good about one's self. Therefore, donating extra time to the charity and the adoption of a combination of linguistic and non-linguist attributes proves the trustworthiness (reliability) of his commitment (signals) according to the principle that

"the higher the net costs (costs minus benefit) to the volunteer the more likely the individual will be perceived as a volunteer" (F. Handy, 2000).

It follows that amongst FAs, the difference in the degree of commitment shapes the construction of the notion of volunteering. As an effect, a distinction is made between volunteering within the dominion of social activities and volunteering as according to a moral and political curriculum. While for the first ranking advance is optional, for the second, it is necessary.

*"This is what we do, this is where we stand. My aim is to be an H.C.P."*¹³ [Charlie]

As a result, the combination of a multi-media displays of signals and their propaganda by means of political oratory enhance an FA's profile and invest it with a higher-level representation, such as the ideal Health Care Professional. In this respect, training sessions are more than just the time and place where knowledge is delivered. It follows that training is reconstructed according to its function to educate new members according to the principle dictated by central division whose hierarchical structure is indirectly legitimized by the following ever-present statement:

"whose job is to educate and form the elite member of the FA" [Charlie].

It could be argued that the FA strives for competition, but I soon realised that this was not the case. As the concept of volunteering itself is at stake, I had to further my enquiries with other members. I found that while for some FAs, volunteering for the charity is a life time commitment, for others it is a way to devolve spare time, socialize, and improve their career profile (medical).

⁶ H.P.C. Health Care Professional such as doctors, nurses, paramedics. FAs are not in this category because they have not attended a course that leads to a registration with the Health Care Professional Council.

“ We don’t know why Charlie does all this, but if he likes it why not? In the end we are volunteers but I would like to have more fun.” [Roger]

Commenting on Charlie’s absence from training sessions:

“Last two weeks I gave the lectures...well ...People were laughing, getting together doing the scenario...this is what keeps the unit going: fun” [Mike]

The character of status and its attributes revolve around the management of an evening class, which is seen either as the opportunity for rank advancing or as the opportunity to practice unpretentiously first aid skills after a hard day at work.

I also asked senior members about their participation in duties. I was told:

“Most of the time I just put my uniform on...stick on the old plaster and go home, tell them to drink something hot and if they are really sick I give them Paracetamol” [Mike]

In the case of one volunteer, formal status is acquired within a hierarchical construct of volunteering, where ranks and appointments are symbols of display. The rest of the members did not value the formal recognition of appointment as indication of status, but of conviviality. The acquisition of status unfolds within two opposing notions of volunteering

In general, senior members complain about getting bored during training lectures and that these should have more fun. I shall now analyse the organization of social events among the Beckton division of FA.

BONDING THROUGH CHOCOLATE

In the previous chapters, I have recognised the distinction between social and political core values. I will now give evidence of the process by which these ‘same political core values’ are transmitted to new recruits and consolidated among existing members according to a logic of organizational socialization (Haski-Leventhal & Bargal, 2008) for the purpose of bonding volunteers to the ethos of the FA.

9 members are divided into 3 groups, each composed of at least one ranked officer, and a new member. The groups were told to be in competition with each other and that they had to answer questions related to the charity’s motto, its foundation, ceremonial dates, and major historical events, royal and/or V.I.P. members. The more correct the answer, the more chocolates were distributed to each team. While sweets were given for a right answer, these could not be eaten until the end as in case of a wrong answer they had to be returned according

“to a system in place according to which I will revoke those sweets to punish you for the wrong answers”. [Charlie]

Again, the making of a volunteer requires an effort on the recruit, and sweets (benefits) are not to be given away, but earned throughout active participation in distinctive social events. As handouts are not to be read until the end of training sessions, sweets are not to be eaten until the end of the FA quiz. In fact, the cost of proving loyalty to the charity is not only on participant volunteers, but also on those who chose to organize the events. As a result, those FAs who plan

social events act as organizational members and adopt a set of socialization tactics aimed at blending together the individual aims of prospective and existing members with the charity's goal. In this respect:

"The volunteer organization is also values based, and the emotional identification of the volunteers with these values (and goals) is crucial" (Haski-Leventhal & Bargal, 2008)

Returning to the game, the answers to those questions where, in line with the extensive usage of jargon, unknown to most of volunteers regardless of their rank. A typical question is:

"And to which army belong the Field marshal rank whose uniform has brown marks and grants FA memberships?" [Charlie]

Although members wondered how Charlie managed to find the answer to the bizarre questions, he commented that he had spent all afternoon preparing the FA quiz. The mastering of those organizational tactics is the result of extra time volunteered, which in turn proves the volunteer leader's interest in advancing the core political values of the charity within the social domain of the group. It follows that sociality is here reformulated according to the charity agenda and acts as a social glue for members, especially "newbies". As a consequence, assuming the role of organizational members grants in turn status to the volunteers whose function is not merely to train new members, but to educate them.

"This is for you to have a bit of fun but also with the intention to educate you" [Charlie]

One more time in this event, the discrepancy between the Training Officer and the rest of the group is blatant, and it reflects a difference in depth of commitment. Informal status is also achieved by means of educating new recruits to the insignia of the charity.

LAST DAY OF FIELDWORK

The data had been gathered as I approached the completion of this project. Although I deemed my researched terminated, I still visit my field site due to a personal interest in becoming a First Aider. The following event happened in conjunction with the culmination of 5 months of fieldwork in the realization of this dissertation. Despite the fact that I had stopped gathering data by the time this event took place, I believe it should be mentioned. Mike, Charlie and I were in the pub after the training session. Charlie was talking about the future of the FA charity while I was getting the drinks; I then took the chance to ask Charlie why he left the Cadet:

"I left the Cadet because someone died in the back of the ambulance, as I came to the FA I became an ambulance crew...just like that,.... then I was left on my own, They [other crew FA members] did not speak to me, they did not told me anything, I was on my own...Now we have change the system and we make sure everyone has the right level of training to operate" [Charlie]

As he said so, his eyes became wide, round and slightly wet. His breathing increased slightly. He kept on switching his gaze between me and Mike without keeping eye contact, which I recognized as the prelude for a quote from the *'Bible'* cited with a self-complacent attitude. The small 'bookies pen' I had misappropriated from the betting shop due to its size and versatility bended in my left hand, which had reached my pocket as a reflex after months of jotting in the most improbable places on the way back home.

I recall this event as evidence of my failure in having investigated at a pristine stage of my research the reason why one of the most influential characters of my dissertation had re-joined the FA. However, the implications of such as a fault and interpersonal indelicacy affected the range of analysis achieved so far. Moreover, I have failed to establish a dialogical rapport with one of the foremost ever-present figure with the FA in Beckton.

Having spent three weeks in a refugee camp on the border between Albania and Kosovo during the Serbian-Kosovo war as a volunteer of a humanitarian aid association with no training and very little support, I was left with a huge sense of despair and hopelessness, which invested me with a magnetic feeling of attraction towards emergency-type events.

In this respect, while I approached the FA to further a specific field of enquiry as the result of a dialogic sense-making between the ethnographer and the field site, I failed to overcome my unconscious counter-transferential reactions, which in turn weakened the due strangeness for optimal research. While the 'seduction'¹⁴ (Robben, 1996) of data gathered under the influence of an emotional interplay between researcher and participants might override the professional stance of the ethnographer, in my case I have failed to establish the very first step towards a critical dialogic comprehension of the intimate transferential dynamics of a research participant and mine. Notwithstanding the fact that the establishment of a different rapport could conversely represent the occasion for collaboration with a potential informer whose distinctiveness has been revealed throughout the project.

CONCLUSION

I have provided evidence for my thesis that even though the core element of an FA is a combination of several factors, such as language (medical terminology), training (know-how), and social bonding their chauvinistic policing, which is enforced by imposition through linguistic and non-linguistic form, can lead to the increase in status of a member in respect to others. I have unraveled the logic according to which different group members set the social and political boundaries within the group and proven how these generate different values according to which status is awarded accordingly. I have investigated the different concepts by which different volunteers construct their own notion of what it means to be a First Aider.

Finally, I have analyzed the construction of social events according to the logic of formal social bonding inspired by the ethos of the charity and its link to the acquisition of status.

Acknowledgments

⁷ Defined as "the conscious utilization of the complex of social, emotional, dialogic, and transferential dynamic between ethnographer and informant" (Robben, 1996) (Robben 1996:160 In Robben and Sluka 2007).

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My gratefulness to any other member of the FA.

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Positional and Postural Behavior of Black-handed Spider Monkey, *Ateles geoffroyi*, Osa Peninsula, Costa Rica
By Grace Showalter

Abstract

A quantitative study on the positional and postural behavior of *Ateles geoffroyi* is completed and compared to similar studies on *Ateles paniscus* and other members of the superfamily Hominoidea. The primary goal of this study was to gain greater insight of *Ateles geoffroyi* positional and postural behavior. Specifically, the generality of Hunt's (1992) chimpanzee-based terminal branch feeding hypothesis was tested with regard to New World monkeys. Statistical comparison with data from *Ateles paniscus* and the Hominoidea was completed in an effort to examine convergence. The general profile of *Ateles geoffroyi* was attained, and comparison of internal variables revealed patterns of weight-bearing structure use as well as positional activity budgets. The generality of the terminal-branch feeding hypothesis was confirmed. However, the limited sample size of this study inhibited proper comparison with outside data sets. Consequently, issues of positional behavior studies are addressed. Further study is required to reach reliable conclusions on convergence, and should be completed for greater understanding of the relationship amongst adaptation, behavior, and evolution.

Introduction

In the last twenty-five years, positional behavior data has become increasingly detailed, explicit, and quantitative; consequently, understanding of morphological correlates of positional behaviors has increased (Hunt et al. 1996). Thus, gathered data on positional and postural modes can be compared to evaluate both behavioral and morphological similarities among multiple species (Hunt 1991). Positional behavior has been used to provide qualitative description and subsequent functional interpretation of many species; Johnson and Shapiro (1998) make direct

mention of this in their comparison of Atelines and Cebines. There has been suggestion of convergence of *Ateles* spp. and extant Hominoidea; *Ateles* spp. frequently employ suspensory locomotion and feeding postures that involve the forelimbs, reminiscent of Hominoid behaviors. Further, many skeletal and mycological features of the forelimb, in addition to parts of the axial skeleton, suggest morphological similarities between *Ateles* and extant Hominoidea (Youlatos 2002). Through comparison of positional and postural behavior of *Ateles geoffroyi* and the most suspensory of the Hominoidea, the gibbon (*Hylobates* spp.) and the orangutan (*Pongo* spp.), this proposition can be addressed.

In 1992, Hunt proposed a terminal branch feeding hypothesis. Following the hypothesis, postures used among small weight-bearing structures are different from those used among larger weight-bearing structures and postures used in terminal branches are different from those used in non-terminal branches (Hunt 1992). Hunt (1992) observed this in *Pan troglodytes* in Mahale. Correlative variations in behavior and weight-bearing structure size are one example from the array of morphological and behavioral features that appear to be part of a complex that enables hominoids to exploit ripe fruit (Temerin and Cant 1983). A study performed with *Ateles paniscus* in Guiana also found that locomotion and feeding were confined to small and medium supporting strata (Youlatos 2002). An inference can thus be made that similar patterns appear in the behavior of *Ateles* spp. and *Pan troglodytes*. Could this similarity be an indication of the aforementioned convergence?

The primary goal of this study was to gain greater insight of *Ateles geoffroyi* positional and postural behavior. Four field studies of *Ateles* spp. have been completed, all demonstrating that suspensory locomotion and postures dominate the positional profile of the species (Youlatos 2002; Mittermeier 1978; Cant 1986; Fontaine 1990). Bearing this in mind, the generality of

Hunt's (1992) terminal branch feeding hypothesis was tested. Furthermore, the collected *Ateles geoffroyi* data was compared with that compiled in Hunt's (1991) article, "Positional behavior in the Hominoidea." Through this comparison, the suggestion of convergence with extant Hominoidea was examined. Finally, the behaviors of *Ateles paniscus* and *Ateles geoffroyi* were compared, in an attempt to determine if varying ecological conditions have an affect on exhibited postural and positional modes.

The first question asked was as follows: Does Hunt's (1992) terminal branch feeding hypothesis hold for a suspensory, frugivorous, fission-fusion New World primate? As chimpanzees and spider monkeys have similar feeding ecologies and consequently similar social structures, it was hypothesized that Hunt's hypothesis would hold. Further, it was predicted that suspensory modes would be more frequently associated with small or medium weight-bearing structures.

Next, there was the question of whether these findings would be congruent with those of Youlatos' (2002) study of *Ateles paniscus* positional and postural behavior. It was hypothesized that the findings would indeed be congruent (*Student's T - test, $p < 0.05$*). It was predicted that travel modes of *Ateles geoffroyi* would be confined to the main canopy, while tail-arm brachiation specifically would be confined to small and medium weight-bearing structures.

Finally, the suggestion of convergence with extant Hominoidea was addressed. It was hypothesized that Hunt's (1991) positional and postural frequencies of the Hominoidea would be congruent (*Student's T - test, $p < 0.05$*) with the calculated positional and postural frequencies of *Ateles geoffroyi*. Congruency of data could serve as an indication of convergence, as evolution of superficially similar positional/postural modes may indicate similar environmental conditions, resulting in similar morphology and behavior (Youlatos 2002). It was

predicted that suspensory mode frequencies would be most similar to those of *Hylobates* spp., the greatest brachiators of the Hominoidea.

Materials and Methods

The focal individuals of this study were semi-habituated *Ateles geoffroyi*. Data was collected using instantaneous focal sampling. Each sampling period was two minutes in length, with thirty-second sampling intervals. A new focal was chosen for each sampling period; however, individuals were not identified and the gathered data is highly dependent. Ten categories of data were collected: date, time, behavioral context, positional mode, postural mode, tail use and location, weight-bearing structure size, location in tree, canopy layer, and presence of ripe or unripe fruit.

Definitions for behavioral context, postural modes, and positional modes were taken from Youlatos (2002) and Hunt and colleagues (1996), respectively, and are provided in the attached ethogram (See Appendix II). The “tail use and location” category contained three variables: tail above body, tail below body, or tail free (not in use) (Youlatos 2002). Weight-bearing structures were put into one of four categories: small (≤ 2 cm), medium (> 2 cm, ≤ 10 cm), large (> 10 cm, ≤ 20 cm), or very large (> 20 cm) (Hunt 1992; Youlatos 2002). “Location in tree” was classified as either terminal branches (those within one meter of the tree edge) or non-terminal branches (Hunt 1992). “Forest layer” encompassed three categories, differentiated based on distance from the ground: understory (0-15 m), main canopy (15-30 m), and emergents (> 30 m) (Youlatos 2002). Distance was measured with a Bushnell Yardage Pro Rangefinder. Weight-bearing structure diameter was visually estimated.

Until a knowledge of *Ateles geoffroyi* range and travel pattern was gained, the five trails near Piro Research Station were walked in rotation throughout the day. It took approximately two days to determine this pattern. Once identified,, trail rotation was adapted to fit said pattern. Research was completed from June 28, 2015 to July 6, 2015; all research was completed at Piro Research Station, Osa Peninsula, Costa Rica.

Piro Research Station is a facility of Osa Conservation, located at (8°24'15.1"N, 83°20'11.4"W), on the Pacific side of the Osa Peninsula in an important biological corridor extending southeast from Corcovado National Park towards Cabo Matapalo (Osa Conservation n.d.). Osa Conservation's core 1,700-hectare property contains both primary and secondary forest, a range of soil types, freshwater streams and riparian areas, and covers an elevation gradient extending from the beach to 300 meters above sea level. The property also contains 171 hectares of abandoned pochote (*Bombacopsis quinatum*) and teak (*Tectona grandis*) plantations that are gradually being reforested with native species (Osa Conservation n.d.).

Due to constraints of time and space, the data gathered for this study was non-independent. Consequently, Likelihood Ratio Chi-Squares were used for analysis of raw data. Each variable within all categories was assigned a numeric value to allow for statistical analysis (See Appendix III). The following variables were analyzed to investigate the generality of the terminal-branch feeding hypothesis in the following ways: postures/positions in small/medium vs. large/very large weight-bearing strata, and postures/positions in terminal branches vs. non-terminal branches. The terminal branch-feeding hypothesis primarily concerns behavior during feeding, and the adaptive nature of said behavior. Testing for adaptive nature is accomplished through two categories of variable: terminal/non-terminal branch location and weight-bearing structure size. These variables are related through the fact that terminal (edge) branches are

usually smaller in diameter than branches closer to the trunk of the tree. Most simply, these variables are tested to determine whether the variation in behavior is due to change in weight-bearing structure size, change in location in the tree, or both.

Reported data of positional and postural mode frequencies in extant Hominoidea (Hunt 1991) and *Ateles paniscus* (Youlatos 2002) were compared with that of *Ateles geoffroyi* using Student's T-test to evaluate significant differences for convergence. Additionally, frequencies of travel modes on varying weight-bearing strata were calculated and compared, along with frequencies of use of forest layers in travel locomotor behavior and feeding postural behavior, were compared with those of Youlatos (2002). Excel and SAS were the programs used for data management; a special thanks to Jang Dong Seo of the Indiana Statistical Consulting Center for assistance with data analysis.

Results

_____ All tables and figures referenced in the following results are available in Appendix I.

Terminal Branch Feeding Hypothesis

In order to evaluate the generality of Hunt's (1992) terminal branch feeding hypothesis, total incidence and frequency of all positional and postural behaviors of *Ateles geoffroyi* were calculated. A total of 109 positional behaviors were recorded and analyzed. Approximately 97% of all positional behaviors were performed on small/medium weight-bearing structures; the remaining 2.8% were performed on large/very large structures. Positional behaviors exhibited in small and medium weight-bearing structures were compared with those exhibited in large and very large weight-bearing structures using a Likelihood Ratio Chi-Square. The positional behaviors performed in small/medium structures are significantly different from those performed in large/very large structures (Likelihood Ratio Chi-Square, $p < 0.0001$). Approximately 58% of

all positional behaviors were performed in terminal branches; the remaining 41.3% were performed in non-terminal branches. Positional behaviors exhibited in terminal and non-terminal branches were also compared and found to be significantly different (Likelihood Ratio Chi-Square, $p = 0.0352$).

A total of 265 postural behaviors were recorded and analyzed. Ninety-one percent of all postural behaviors were performed on small/medium weight-bearing structures; 9.0% were performed on large/very large structures. Postural behaviors exhibited in small and medium weight-bearing structures were compared with those exhibited in large and very large weight-bearing structures using a Likelihood Ratio Chi-Square. The postural behaviors performed in small/medium structures are significantly different from those performed in large/very large structures (Likelihood Ratio Chi-Square, $p < 0.0001$). Approximately 57% of all postural behaviors were performed in terminal branches; the remaining 42.6% were performed in non-terminal branches. Postural behaviors exhibited in terminal and non-terminal branches were also compared and found to be significantly different (Likelihood Ratio Chi-Square, $p < 0.0001$).

The frequencies of suspensory modes on varying weight-bearing structure size were also investigated. Approximately 97% of all suspensory modes, positional and postural, occurred on small and medium weight-bearing structures; the remaining 2.5% occurred on large and very large weight-bearing structures.

Comparison with Youlatos (2002)

The raw data of this study was manipulated in several ways to be compared with Youlatos (2002). First and foremost, the frequencies of positional modes of travel were calculated for *Ateles geoffroyi* and compared to those of *Ateles paniscus* using Student's T-test

(Youlatos 2002). This data is available in Table I. The result was not significant ($p = 0.9986$). Frequencies of feeding postural behavior (postural behavior in feed context) were also calculated and compared with Youlatos (2002), available in Table VI. Again, the frequencies were not significantly different ($p = 1.0$).

Next, frequencies of use of forest layers in travel positional behavior and feeding postural behavior were calculated for *Ateles geoffroyi* and compared with those of *Ateles paniscus* (Youlatos 2002). Calculated frequencies for *Ateles geoffroyi* are displayed in Figure I, while the comparison with *Ateles paniscus* is displayed in Table III. The breakdown of forest layer use for positional behaviors is as follows: 63% understory, 33% main canopy, and 4% emergent. The breakdown of forest layer use for postural behaviors is as follows: 63% understory, 32% main canopy, and 5% emergent. These results were compared with those of *Ateles paniscus* using Student's T-test, and neither positional ($p = 0.9813$) nor postural ($p = 1.0$) behaviors offered significant differences.

Finally, weight-bearing structure size use frequencies for tail-arm brachiation were calculated for *Ateles geoffroyi* and compared with data on *Ateles paniscus* from Youlatos (2002) in Table III. Approximately 63% of *Ateles geoffroyi* tail-arm brachiation occurred on small weight-bearing structures and 36.6% occurred on medium structures; no instances of tail-arm brachiation occurred on large or very large weight-bearing structures. When these frequencies were compared with those of Youlatos (2002), the difference was not significant (Student's T-test, $p = 1.0$).

Convergence and Comparison with Hunt (1991)

The calculated frequencies of *Ateles geoffroyi* positional and postural behaviors were compared to those of the Hominoidea presented in Hunt (1991). Tables III and IV present the

results of the comparisons. Each set of frequencies was compared to that of this study, with a significance level of $p < 0.05$. None of the performed Student's T-tests had significant results.

Discussion

Marian Dagosto and Daniel L. Gebo (1998) authored a publication titled "Methodological Issues in Studying Positional Behavior". This chapter, from *Primate Locomotion*, is an excellent window into the task of completing a positional behavior study, offering discourse on the various obstacles one comes across. The methodological issues the authors present and the role these issues intrinsically play in any study will be considered and discussed.

It is worth noting immediately that based on the above results, Hunt's (1992) terminal branch feeding hypothesis does indeed hold for a suspensory, frugivorous, fission-fusion New World primate, *Ateles geoffroyi*. With a significance level of $p < 0.001$ for three of the four variable analyses (the exception being positional terminal vs. non: $p = 0.0352$), it can be safely speculated that both positional and postural behaviors vary significantly between terminal and non-terminal branches; this idea holds as well for small/medium and large/very large weight-bearing structures. Additionally, the predicted association of suspensory modes with small or medium weight-bearing structures was confirmed ($p < 0.0001$).

Following Youlatos (2002), it was also predicted that travel modes would be confined to the main canopy, while tail-arm brachiation specifically would be confined to small and medium weight-bearing structures. In actuality, instances of tail-arm brachiation only occurred on small and medium structures. However, 63.0% of travel modes occurred in the understory of the forest.

Unfortunately, it may be the best decision to deem the results of comparison between this study and the studies of Youlatos (2002) and Hunt (1991) “inconclusive.” Outside comparisons of *Ateles geoffroyi* data with both Youlatos (2002) and Hunt (1991) produced no significant results. True success in establishing differences and correlations between behavior and morphology hinges upon the quality of the morphological and behavioral data sets to be compared (Ripley 1967; Fleagle and Meldrum 1988). There is a fair assumption to be made that this study may have fallen victim to inconsistencies in sample size. Youlatos (2002) recorded 1355 *Ateles paniscus* positional behaviors. Only 109 positional behaviors were recorded for this study, a mere eight percent of Youlatos’ (2002) sample size. Perhaps another statistical test would produce a viable result. However, the variance in sample size would skew any comparison of means. Additionally, the conclusions of any study are fully dependent on the number of categories used and how different subcategories are consolidated (Dagosto and Gebo 1998). As each study collects data based on research objectives, methods of data collection will naturally vary among studies (Rose 1979). For example, inconsistencies in sample types (*n* observations, bouts, hours, etc.) impacted the comparison of this study with the studies presented by Hunt (1991).

However, Dagosto and Gebo (1998) make an assertion that habitat is yet another uncontrollable variable to impose restraints on behavior. Cant (1992) argues that positional behavior studies should aim to control for habitat “in order to avoid the possibility that behavioral differences between species are artifacts of observing them in different structural contexts.” I would like to challenge this and suggest that in controlling for habitat, one is ignoring the response of morphology to environment. The concept of Darwinian adaptation suggests that organisms are functionally fitted to their environments. Consider the following

example: increasing dependence on forelimbs in arboreal primates serves as an arboreal locomotor adaptation (Napier 1967); if one were to control for habitat, would this behavioral and potentially morphological response to habitat be lost as an “artifact”?

The subject of *Ateles geoffroyi* positional and postural behavior requires far more time and attention. A larger sample size would allow for comparison with previously published studies. Greater knowledge of *Ateles* spp. morphology would have allowed for greater speculation into the topic of convergence. The confirmation of generality in the terminal-branch feeding hypothesis speaks volumes on the pressure of feeding ecology, which may act as a driving force for convergence. Ultimately, a similar study in a long-term setting should be completed. Study of positional and postural behavior may reveal a scheme of evolution, set in the framework of ecology and morphology (Napier 1967).

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Appendices

Appendix I

Table I: Frequencies calculated from *Ateles geoffroyi* positional behavior data. In addition, postural behavior activity budget breakdown provided.

Frequencies of Postural Behavior					
Total Recorded Postures 265					
Behavior	Occurrence	Frequency %	Traveling %	Feeding %	Resting %
Squat	0	0	0	0	0
Ischial Sit	75	28.3	0	14.0	14.3
Stand	1	0.4	0	0	0.4
Bipedal Stand	4	1.5	0.4	0.7	0.4
Tripod	5	1.9	0	1.5	0.4
Tail-Only Hang	58	21.9	0.7	18.0	3.0
Tail-Hind Limb Hang	54	20.4	0.72	15.8	3.7
Tail-Forelimb Hang	27	10.2	0	3.7	6.5
Tail-Forelimb-Hind Limb Hang	21	7.9	0	3.3	4.6
Lie	16	6.0%	0	1.1	4.9
Vertical Cling	4	1.5	0.4	0.7	0.4

Table II: Frequencies calculated from *Ateles geoffroyi* postural behavior data. In addition, positional behavior activity budget breakdown provided.

Frequencies of Positional Behavior					
Total Recorded Positions 109					
Behavior	Occurrence	Frequency %	Traveling %	Feeding %	Resting %
Quadrupedal Walk	28	25.7	24	1.7	0
Quadrupedal Run	0	0	0	0	0
Bipedal Walk	0	0	0	0	0
Clamber	12	11	11	0	0
Vertical Climb	4	3.7	2.8	0.92	0
Bridge	4	3.7	1.8	1.8	0
Tail-Arm Brachiation	41	37.6	37		
Forelimb Swing	0	0	0	0	0
Other Suspensory	0	0	0	0	0
Leap	15	13.8	10	3.8	0
Drop	5	4.6	4.6	0	0

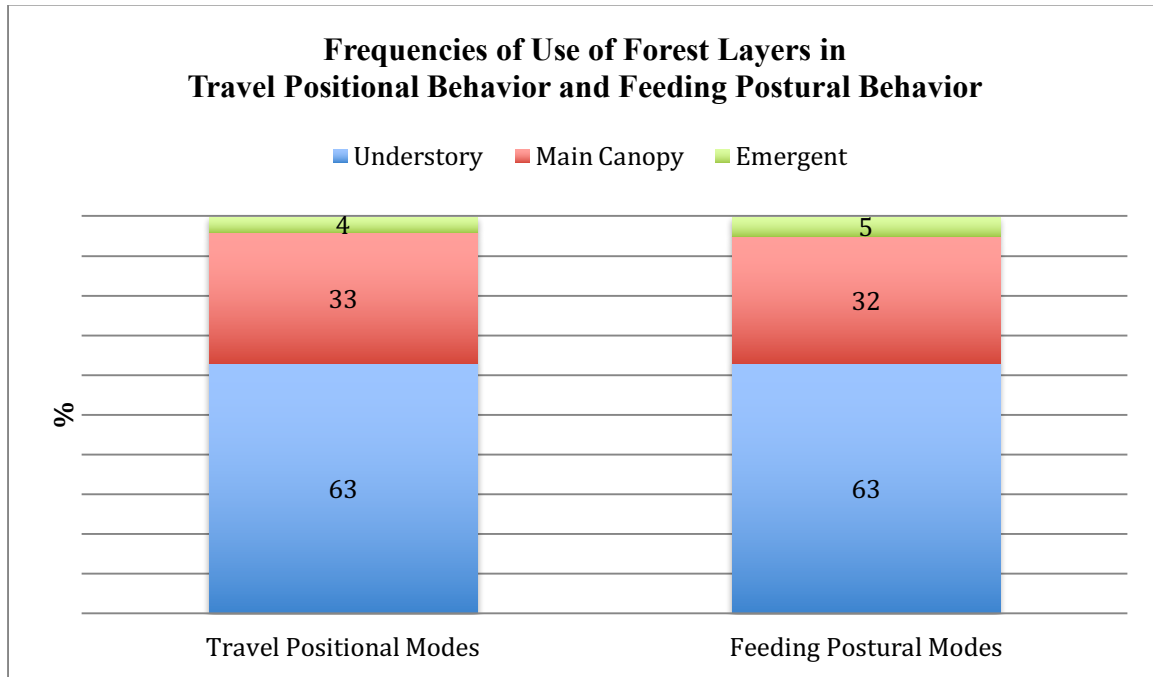
Table III: Results from Unpaired Student's T-test comparing *Ateles geoffroyi* positional behavior frequencies to the compiled data presented in Hunt (1991). Duplicates in list are due to comparison of frequencies with multiple studies of same species. Hunt (1991) behaviors vary from those used in *Ateles geoffroyi* study. Ex: “walk” and “quadrupedal walk” taken as same definition.

Comparison of <i>Ateles geoffroyi</i> Positional Data with Hunt (1991) Compiled Data	
Compared Species	Result: p-value
<i>Hylobates agilis</i>	0.9161
<i>Hylobates lar</i>	0.9052
<i>Hylobates pileatus</i>	0.9299
<i>Hylobates synd.</i>	0.9177
<i>Hylobates synd.</i>	0.9107
<i>Pan paniscus</i> *	0.8788
<i>Pan paniscus</i>	0.8972
<i>Pongo pygmaeus</i>	0.9066
<i>Pongo pygmaeus</i>	0.8867
<i>Pongo pygmaeus</i>	0.9640
<i>Pan troglodytes</i>	0.9385
<i>Pan troglodytes</i> *	0.8931
<i>Papio anubis</i>	0.9399
<i>Papio anubis</i> *	0.9134

Table IV: Results from Unpaired Student's T-test comparing *Ateles geoffroyi* postural behavior frequencies to the compiled data presented in Hunt 1991. Duplicates in list due to comparison of frequencies with multiple studies of same species. Hunt (1991) behaviors vary from those used in *Ateles geoffroyi* study. Ex: “sit” and “ischial sit” taken as same definition.

Comparison of <i>Ateles geoffroyi</i> Postural Data with Hunt (1991) Compiled Data	
Compared Species	Result: p-value
<i>Hylobates agilis</i>	0.5622
<i>Hylobates pileatus</i>	0.5537
<i>Hylobates synd.</i>	0.5537
<i>Hylobates synd.</i>	0.5425
<i>Pan paniscus</i>	0.6406
<i>Pongo pygmaeus</i>	0.4589
<i>Pongo pygmaeus</i>	0.4095
<i>Pongo pygmaeus</i>	0.4779
<i>Pan troglodytes</i>	0.6024
<i>Pan troglodytes</i> *	0.5768
<i>Pan troglodytes</i>	0.6024
<i>Gorilla gorilla</i>	0.5380
<i>Papio anubis</i>	0.5859
<i>Papio anubis</i>	0.5904

Figure I: Calculated frequencies of *Ateles geoffroyi* forest layer use in travel positional behavior and feeding postural behavior. Frequencies (percent) are listed in corresponding color area. Order of layers from bottom to top: understory (0-15 m), main canopy (15-30 m), emergent (>30 m).



Appendix II

Ethogram: all definitions are taken from Hunt et al. 1996 and Youlatos 2002, unless otherwise indicated.

Behavioral Context:

Travel: moving from and to sleeping trees and between feeding trees

Feeding: searching, acquiring, and processing plant food within a single or adjacent feeding

Rest: to cease from action or motion (Oxford Dictionaries 2015)

Positional Modes:

Quadrupedal walk: pronograde horizontal progression above and along single supports using a regular swing and stance phase gait

Quadrupedal run: pronograde horizontal progression above and along single supports using fast symmetrical or irregular gaits

Bipedal walk: progression above and along supports involving only the hind limbs

Clamber: quadrupedal body displacements in various directions on and across multiple, diversely oriented supports with no particular gait, maintaining the body either pronograde or orthograde

Vertical climb: continuous quadrupedal upward or downward movement along a single vertical support

Bridge: gap-crossing mode involving secure retention of the initial supports by both hind limbs and tail and cautiously pulling the body by the abducted forelimbs on the terminal supports across the gap with variable bodily orientation permitting closing of the gap and never involving an airborne phase

Tail-arm brachiation: below and along or across one or multiple supports via orthograde suspensory locomotion involving an alternate gait of the abducted and extended forelimbs and tail with extensive trunk rotation approaching 180°

Forelimb swing: below and along or across one or multiple supports via orthograde suspensory locomotion involving an alternate gait of the forelimbs and occasionally the tail with little trunk rotation

Other suspensory: miscellaneous suspensory modes involving pendular movement of the tail that propels the body forward (tail swing) and quadrupedal suspensory bodily progression below and along or across supports with regular or irregular gaits

Leap: gap crossing mode involving an airborne phase with thrust provided by a simultaneous extension of the hind limbs

Drop: gap crossing mode involving an airborne phase with takeoff initiated usually by falling instead of active propulsion and with bodily displacement mainly vertical

Postural Modes:

Squat: sitting with the bodily mass borne solely by the feet, with hips and knees strongly flexed

Ischial sit: crouched with mass supported mainly by the ischia and less by the feet

Stand: support by either 3 or 4 limbs on a single or multiple supports

Bipedal stand: support by the hind limbs on a single or multiple supports

Tripod: below a branch with the tail and both hind limbs pressing the vertical or steeply inclined branch and the body pronograde or quasipronograde

- Pronograde: walking with the long axis of the body parallel to the ground, as do most quadrupeds (Merriam-Webster)
- Quasipronograde: walking with the long axis of the body nearly parallel to the ground (Merriam-Webster)

Tail-only hang: hanging below branch via the tail

Tail-hind limb hang: hanging below branch via the tail and one or both hind limbs

Tail-forelimb hang: hanging below branch via the tail and one or both forelimbs

Tail-forelimb-hind limb hang: hanging below branch via the tail, one forelimb, and one or both hind limbs

Lie: prone, supine, lateral lie and sprawl on a support

Vertical cling: clinging to a vertical support via strongly flexed forelimbs and hind limbs

Appendix III

Variable Numeric Conversions:

Behavioral Context:

1 = Travel

3 = Rest

2 = Feeding

Positional Modes:

1 = Quadrupedal Walk

7 = Tail-Arm Brachiation

2 = Quadrupedal Run
3 = Bipedal Walk
4 = Clamber
5 = Vertical Climb
6 = Bridge

8 = Forelimb Swing
9 = Other Suspensory
10 = Leap
11 = Drop

Postural Modes:

1 = Squat
2 = Ischial Sit
3 = Stand
4 = Bipedal Stand
5 = Tripod
6 = Tail-Only Hang

7 = Tail-Hind Limb Hang
8 = Tail-Forelimb Hang
9 = Tail-Forelimb-Hind Limb Hang
10 = Lie
11 = Vertical Cling

Tail Use:

1 = Above Body
2 = Below Body

3 = Tail Free

Location in Tree:

1 = Terminal Branches

2 = Non-terminal Branches

Weight-bearing Structure Diameter:

1 = Small (≤ 2 cm)
2 = Medium (> 2 cm ≤ 10 cm)

3 = Large (> 10 cm ≤ 20 cm)
4 = Very Large (> 20 cm)

Forest Layer:

1 = Understory (0-15 m)
2 = Main Canopy (15-30 m)

3 = Emergents (> 30 m)

Fruit:

1 = Ripe

2 = Unripe