Nellie’s green lipped mussels #MeadCompetition

Hadas Ore
February, 2017

One Wednesday afternoon, about four years following my family’s migration from Israel to New Zealand, I was gripped by a sudden urge to bake “challah” (The Friday night Jewish bread for the ritual of welcoming the Shabbat). Longing to return to the warmth and sunshine of Israel on that wintery day, I opened a recipe collection that I had received from my two children’s kindergarten teacher in Israel. Turning to the recipe for challah, I was reminded of the small, almost bite-sized challah sprinkled with sugar that my daughter would share with us every

Friday during her time at kindergarten. Usually we ate it on the trip back home, leaving crumbs on the car seats. There was not much point in saving it for the Friday night meal – since as secular Jews we only observed this practice when we visited my parents or parents-in-law. I realized that the challah my daughter baked in Israel is the last home-baked challah I had eaten.

I rejoiced in my challah that Wednesday, but the smell of the baking bread and its sweet taste evoked my tears. The sweet challah that I was eating became salty and my sobbing made it hard to finish. This experience was intensified as I looked again at the recipe collection, and found the following metaphor for the ideal family under the title ‘Recipe for a Blissful Home’. Ingredients: 2 cups of understanding, 4 cups of love, 3 cups of forgetting, 1 cup of friendship, 2 spoonfuls of hope, 4 pieces of faith, 1 barrel of joy. Method of Preparation: Mix love with understanding and add the pieces of faith wholeheartedly. Knead the kindness and patience with warmth, and sprinkle with friendship and hope. Finally, season to taste with joy and cook with the rays of the sun. Serve plentifully every day (the Hebrew source is unknown).

Photo by Hadas Ore

Reflecting on my emotive reaction precipitated laughter. I felt that I was being ridiculously sentimental as I idealized my Israeli home through the images that were instigated by baking and eating the challah. I could remember our car taking the turns on the infamously winding road at the outskirts of Jerusalem where we lived. My food journey was so powerful it took me back to the physical landscape of Israel. At the same time, despite of my awareness I could not stop my tears. I was also surprised at the intensity and the mixture of my emotions, specifically since I felt strongly toward emigrating; it had been my choice to emigrate and nothing had forced me to leave Israel barring the hope for a better future for my family.

I gathered myself and wrote an entry in my diary, describing the insatiable hunger that had pervaded my life since arriving in New Zealand. This feeling led me to eat, cook and feed others familiar home cooked foods that I had never much cared for. I found myself craving freshly cooked dishes wistfully. I specifically longed for the dishes made by my Polish-Russian family, my Egyptian and Turkish in-laws and many fresh Palestinian dishes I used to be able to buy around

Jerusalem. This event made me ponder if mine was a normal reaction;

> *I asked myself if other Jewish-Israelis begin to bake challah following migration. Did they too increase their home cooking and feel this insatiable hunger? Did they feel flooded by these mixed and contradictory emotions when engaging with the production and consumption of food?*

To answer these questions, I embarked on fieldwork in Auckland, New Zealand (2007-2011) by conducting interviews as long conversations, and participant observation (a method of study in which the researcher participates in the life of a group). I took part in the everyday lives of 25 Jewish-Israeli migrant women from various Jewish ethnicities by shopping, baking and cooking along with them, as well as by participating in many community events and analysing the popular media they used in various ways. Though the resulting ethnography (the systematic study of human culture in descriptive and analytical ways) is dotted with many moments of my self-observation and self-reflection, it is mainly based on the everyday experiences of the women in relation to six domestic food practices. The ethnography follows their logical-practical order, starting with examining the changes in their grocery shopping to cooking and baking, then casual and festive hosting, and finally dieting for weight management. As such, it is the first ethnography that conveys the complexity of women's emotions with regard to home, food and nostalgia, specifically avoiding any further stereotyping of these women as Jewish mothers. My ethnography shows how, in making themselves and mainly family and friends feel 'at home' in New Zealand, the women grapple with three main Jewish-Israeli mythical figures, the popular stereotypes of the "sabra" (the native born Jewish-Israeli male), the "polania" (the Israeli equivalent of the female Yiddish Mama), and the "bashlanit" (the cooking woman who is omnipotent).

Photo by Hadas Ore

Toward the end of my study I realized that in the vast literature that relates to food and nostalgic emotions, an often quoted passage by Marcel Proust (*Ǻ la Recherché du Temps perdu*, 1913) named ‘The Madeleine moment’, epitomises how homemade baking triggers in adults an imagined journey home. More than a century ago, Proust wrote of that journey, lead him to remember his visits to his aunt in the village as a child, who dipped her Madeleine into rose blossom tea and fed it to him. I wondered; if both Proust, who is neither a Jewish woman nor a migrant, and I have had a similar nostalgic food moment, what makes the longing of peoples distinct, and on the other hand, what makes our experiences so similar.

Through reviewing the literature on migrants, food and nostalgia, I understood that what makes Proust’s and my own experience similar is the human ability to materialize through food three important realms in our identity; senses, memories and emotions. Yet by shifting my theoretical focus to question what is home for migrant women, and how they employ their nostalgic memories and emotions in everyday life, I was able to further the understanding of the human desire to belong and feel ‘at home’. I figured that this desire drives women to bring food into the ethereal and manifest their deep longing, pleasure, ambivalence, and much self-irony, as they pass their social critique toward home.

> *Home can be imagined as a house that is divided into different rooms, each room representing a dimension that women realise through their everyday domestic food practices and the memories, senses and emotions that engaging*

with food provokes.

This ‘house’ shifts to a new cultural context after migration. The ‘house’ is obviously not ruined or demolished by international migration, but shifting it leads to transformations both in its exterior and in the interior design of each room. In my study I examined what happens to, and in, each of the ‘rooms’ or dimensions in women’s everyday experiences of reconstituting home. In examining how and why these transformations occur I ended up looking into the ways Jewish-Israeli women negotiate social boundaries with lands and people, realizing five dimensions of home: homelands, ancestral spaces of homes that materialise kinship relationships between four generations (grandmothers, mothers, the women themselves and their children), homes as communal places of belonging, homes as spiritual Jewish and traditional sites, and homes as the personal feminine body.

To illustrate what makes Proust’s and my own account, and those of the women in my study so different, I venture into a short extract from my ethnography based on the experience of Nellie, tracing the reason for the patterned behaviour of women. Nellie is a Jewish-Israeli woman of Moroccan descent married to an Ashkenazi Jewish-Israeli man. During a visit to my house in Auckland, Nellie and I talked about foods that she liked and longed for since arriving in New Zealand. She had begun baking challah regularly similarly a third of the women in the study. In addition as a Moroccan women Nellie also savoured the taste of her mother’s couscous and the manual technique of rolling the damp semolina to make it. Her paternal and maternal grandmothers made couscous distinctly different to her mother’s and her own, and she loved all of their beautiful flavours, textures and aesthetics. When talking about her childhood home in a northern township in Israel, Nellie painted a picture of piety; laying her curls on her mother’s lap and her unwavering devotion. Nellie described her mother’s cooking talent by stating that she was able to sell her baking to supplement the family income. She portrayed her mother with great pride as a triumphant survivor and skilful improviser against poverty who was also renowned for her couscous. Describing her mother’s self-sacrifice in home cooking, Nellie remembered her feeding the family and guests lavish meals from big pots while abstaining in order to ensure that the food would not run out. Nellie also claimed that to remain slim and pretty, her mother smoked, reducing her appetite to avoid eating. She recalled her mother teasing her on her last visit to New Zealand for using ‘Barbie doll pots’, small and elegant in size and shape compared with her own big and generous pots. The cooking pots represented motherly love according to their size; the bigger the pot, the more love was materialized. I asked Nellie about what mystified me; why would she feel nostalgic toward the poverty of her childhood? Nellie explained that her longing is for a time that will never return; the relative simplicity and worry-free life of a child, and the intimacy she shared with her mother, which the making and eating of couscous symbolized.

But her idealization of the past intensified her expression of the social tensions regarding home that materialized through food, mainly in relations to gender, ethnicity and class differences. For example, her mother cooking food without written recipes materialized the fact that she is a “villager” that is less educated than her father who had immigrated to Israel from a large urban centre in Morocco. Nellie remembered her father’s authority as daunting. Moreover, Nellie mocked her Ashkenazi mother-in-law for being a career woman that never had time to learn to cook. She also noted scornfully that her parents-in-law never accepted her on equal terms and always looked down on her. To contest the Zionist hierarchy of ethnicity and class within the family she had set-up, Nellie argued that the infamous Ashkenazi (East and Central Jewish communities) cuisine of gefilte fish is inferior to the Moroccan-Mizrahi (Middle-Eastern and Arab-Jewish communities) cuisine of her home.

Photo by Hadas Ore

Like Nellie and myself, other women in my study began recreating dishes of close female kin, emulating a feeling of being ‘at home’ that materialized the connection with female kin; mainly mothers, mothers-in-law, grandmothers and aunts.

> *Homemade dishes and especially baking turned into metonyms of these female kin.*

Cooking and eating these foods expressed the women’s love and respect toward their kin as they passed on this culinary knowledge to their children; ‘cooking’ their future memories. Again like Nellie, women who formed tense relationships with their mothers or mothers-in-law, regardless of their Jewish ethnicity, often ‘skipped’ a generation and began recreating the dishes of their grandmothers. For example, in Nellie’s food memories familial tensions were commonly manifested through disgust such as toward gefilte fish, thereby expressing critique toward Ashkenazi cooking and defying the dominance of her parents-in-law.

Through cooking iconic foods of the various Jewish ethnicities like gefilte fish and couscou, remembering and eating them nostalgically, the women materialized long-lasting connections with more distant Jewish homelands of previous Jewish generations such as Poland, Morocco and Iraq, depending on the ethnic origins of their close female kin. Similarly, just as my route passed through the landscape of Israel, so did their nostalgic roads, unlike the memories of other Jewish migrants groups around the world. In addition, these imagined routes specifically manifested strong remnants of the Zionist social hierarchy and the Palestinian-Israeli conflict. Thus the nostalgic emotions of Jewish-Israeli women conveyed not only longing and the pleasures of remembering, cooking and eating, but also expressed any tensed political, gendered, ethnic and kinship relationships through deep ambivalence.

For a while I wondered about the place of ambivalence in women’s nostalgia as exemplified here. I knew Nellie was fond of baked foods. On that visit I offered her coffee and Egyptian shortbread cookies called “Menena”, which I had made earlier, following my Egyptian mother-in-law’s recipe. These cookies are usually filled with dates, walnuts and cinnamon, and dusted with icing sugar. I had eaten quite a few Menena earlier, shortly after they came out of the oven. Hence I did not partake in eating the Menena with Nellie. Upon realizing this Nellie smirked and berated me, “you bastard, you just want me to gain weight, luring me with that cinnamon of yours and tempting me to eat”. I laughed at her use of ‘bastard’ as an endearment. However, rather than enjoy the Menena wholeheartedly, my offer evoked a recount of several ambivalences. Nellie said she understood that as children, eating bread was meant to fill them up and this was the main reason for the spicy rich sauce in many of her mother’s dishes; encouraging them to dip in the bread. But as a woman now she regarded bread as “fattening” and threatening with weight gain similarly to other types of baking. Nellie confessed that she avoids looking in the mirror at her naked body, as she hates it, finding only the faults.

As our conversation went on, I asked Nellie of her first encounter with the local green lipped mussels that New Zealand is famous for. Many secular Jewish-Israelis regard the consumption of crustaceans not only as sophisticated by suggesting high class through an association with French cuisine, but also as indication of high economic class. The consumption of crustaceans therefore is embraced as part of their newly found connection with the rich sea waters of New Zealand and becomes a positive marker of this new homeland in their eating. Nevertheless Nellie stated: “I hate these rubbery things; it is enough for me to look at them to see all that disgusting hair sticking out to think of vaginas”. When relating to hairy mussels as analogous to vaginas I felt that Nellie directed her critique toward women and me specifically. She had noted my hairy arms earlier that visit, once we were seated in my living room, and suggested that when I come over to her house she would depilate them. I refused and said: “thank you, but I’m actually attached to my bodily hair; it keeps me warm in the cold New Zealand winters”. Her idea that mussels are like vaginas prompted me to tease her fondly by saying “why don’t you just pluck out the mussels’ hair, and enjoy eating them anyway; after all there are few better mussels than in New Zealand!” Nellie’s instant reaction was “uooo… you’re disgusting!” as she squealed “how can you even suggest this to me?”, smacking my arm jokingly. Nellie’s disgust at eating mussels-vaginas had been instantly transferred to me, who provoked disgust by suggesting proximity to the image and texture that threatened her.

Today, in the anthropology of home, we are greatly aware of the powerful discourses that create analogy between women, the family and the motherland, often demanding singular loyalties. We also know that nostalgic journeys home are inseparable from the human experience and in particular the migrant experience, whereby people taking this route aim at re-establishing a sense of being ‘at home’, rather than blocking their integration into their chosen-new homelands.

> *My central ideas derive from the understanding that women, like other humans, traverse time and space in powerful and sensate ways through their food nostalgia, which triggers and is triggered by their senses, emotions, imagination and memory.*

My new idea is that longing, pleasures and ambivalence are not only integral part of women's nostalgia, but also used to express social critique toward home. What is more, my work establishes the new idea that migrant women live, imagine and return in longing to multiple notions of home, since home is a multidimensional space that they realise through the relationships they negotiate in their food production and consumption. Their ambivalence in particular is a vital means in overcoming the common adversities that migrants face by expressing important social commentary regarding home, which instigates pleasure and evokes humour and self-irony. Self-irony is an enactment of identity (not performance) that is referential and situational, since it is instigated through the life experience of the women in New Zealand. For example in self-irony the women make jokes about hurtful matters normalises, what the women often call their "obsession", "malady", "fault" and "addiction" with regard to cooking and specific home cooked dishes and baking. Their "faults" concerning food production and consumption turn into feminine identity markers that the women recognise as normal cultural differences in New Zealand. This kind of self-irony is raised by discussing for example home cooking and baking, suggesting that the women remember who they are and where they come from. In addition, their self-irony articulates who they do not wish to become, namely what they perceive to be the behaviour of "neglectful" or "over-caring" women, which are common stereotypical attributes for females in the Israeli society.

Anthropological research that focusses on supposedly trivial matters has the potential to raise disregarded but profound questions, such as what is home for women. As a fundamental part of any material culture, researching the changes women engender in their food production and consumption when becoming migrants, opens up new ways of understanding complex questions, such as how and why humans, following their physical mobility, reformulate the relationships with the lands and the people they wish to call ‘home’.

Hadas Ore – 3 Minute Thesis 2013

Full original title of the post: *Nellie’s green lipped mussels and how to revisit the relations between women, home, food and nostalgia*

A Hero of Solitude #MeadCompetition

Henrik Hvenegaard Mikkelsen
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The person I wish to present in the following, a 72-year-old man named Herman, has withdrawn from almost all human contact. But to what extent could we accept the idea that Herman is a singularity? Has Herman, who lives on an island in Southern Sealand, Denmark, achieved what Kierkegaard understands to be a form of “true heroism”: the point where the subject sheds his or her social identity and stands naked (before God)?

Socially isolated people are, perhaps for obvious reasons, difficult to study. While they are, first of all, difficult to find, they may often be reluctant to allow the anthropologist to spend extended periods of time in their vicinity. Only by demanding nothing and by repeatedly pointing out that I will only be in his house for as long he feels comfortable am I able to get to know Herman. Though he in fact never asks me to leave, I often sense that he is in a *solitary mood* – this is the term I use in my field notes – and I will leave after only a few minutes. I always feel as if I am invading Herman's solitude, that I am disrespectful of the fact that he has chosen to establish a boundary between himself and the island community. Most of the time he answers my questions with a shrug or a sigh, but on a few occasions I am able to trigger a response that leaves me breathless: I ask him if his days are long – and rather than the usual shrug, Herman launches into a long, complex rant about how he experiences time itself. I almost drop my pen, as I try to capture how he had come to realize how plastic time really was.

> *Some days went by with the snap of a finger while others – that is, most – almost stood still.*

Such outbursts leave me in a state of perplexity: Am I getting a rare glimpse into the true world of Herman – or is this as much a surprise to Herman as it is to me?

Invading Herman's solitude

The bay offers a dramatic backdrop to Herman's old farmhouse, which looms out of the gloom at the end of the long dirt road. Even in the middle of the day, the house seems too dark inside. The tiny windows in the kitchen once offered a view over the fields and the bay, but are now so dirty that they would let in little light on the brightest of days. As the evening comes, heavy shadows are cast through the open door into the kitchen from where Herman has access to a long, narrow garden. Where the garden reaches the stony beach a tall pine tree is standing sentinel and a few withered bushes cling desperately to the unyielding stones, curved and bent over as though they might be torn away by the wind at any moment. The farmland that surrounds the house was gradually bought up by the neighboring farms between 1990 and 2002 and the only part that remains today is the house and the small garden where I spent the afternoons with Herman. The breeze off the water offers a welcome bit of cool after a muggy day. Herman often seats himself on the garden bench at this time of day, as the black painted wood gives up the last heat of the day. The sun lingers low on the horizon, and Herman attaches the shades to his glasses. We talk about the old crumbling shed. It is gradually turning moss-green like the field on which it stands. Someone should just tear it down. Herman remarks that this has happened to all the wooden structures on the land that once belonged to him. It is no longer safe to cross the small, moldering bridge down by the stream. The wilderness is creeping up on the house from all sides.

Until he turned 68, he had shown none of the infirmities of old age. Life before then had been marked by a distant, continuous flow of motion and events. But things began to disclose themselves in new and more forceful ways to Herman, in tandem with his gradual withdrawal from the island community. He talks about the pain in his right leg at length. In fact, while he cannot recall the experience and sensations involved in walking, running and bicycling in his youth, he has grown fiercely aware of every movement of his body. The waltzing flow of his youth has now given way to a dense, rhythmic stomp; his steps are heavy as he moves through the house or when he walks down to the elderberry bushes at the far end of his garden. He often drops his cane. This forces him to bend over to pick it up – an aching task that requires his full attention for up to a minute. A pause is then introduced into the overall rhythm of walking. Waking up in his bed on the second floor is followed by a ritual: while still lying in bed, Herman counts down from twenty. On the last count he resolutely lifts his right leg out of the bed. A flash of pain immediately extends from the knee to his right foot and darts up through his spine, settling in his shoulders. This leaves him in an uncomfortable position that forces him to push himself out of bed. He then sits there on the edge of his bed for a few minutes until his feet get cold.

The stairs from the bedroom spiral down to the small hallway. There is no handrail, nothing to cling to. When he and his ex-wife, Else, moved into the house in the early 1970s, they had no need for such assistance. In fact, during their first decades in the house he gave no consideration at all to the narrow stairs. If someone had asked him then how many steps there were from his bedroom to the ground floor, he would not have had the faintest idea. But that was then. While the smells – and noises – of the house have long ago regressed into the background, he has come to know everything there was to know about *those damn stairs*. He realizes that while the steps had once been covered by dark green paint, the wood beneath is now exposed. They have become worn toward the center, which make them treacherously slippery.

Over the years, as the sensation in his leg turned from occasional spasms to prolonged pain, Herman gradually developed new ways of descending the stairs; the least painful method involves a form of *crab walk*. Like a crab, he walks sideways, carefully monitoring every joint in his shoulders, spine and legs for discomfort. Cane first, then left foot, and then right, with the agony as his knee takes his weight, joined by a sharp stabbing in the lower spine. He had once asked a home-helper why it always hurt in his back when he went down the stairs, since, he had added, what did his back have to do with his right knee? She had replied sincerely that Herman was no longer a young man. He had known that already and was not really satisfied with her answer. Yet, he explained to me, the home-helper had done her best. And he preferred her feeble answer to those home-helpers who attempted to actually "help" him. Last year, someone from the municipality had come by his house to "talk about his situation". She said that he should come more often to the local activity center. Herman had merely said, "No, that's not for me". When I asked him why he never went to the activity center he repeated the answer: "No, no, that's not for me".

During his daily descent down the stairs in his small house, Herman pauses five steps from the bottom, just before the stairs turn sharply to the right. The next step is particularly tricky. It takes the shape of a small, triangular platform that offers almost no support. Taking a couple of steadying breaths he glares down at the challenge before him with trepidation. He has nearly beaten the steps again. His hand is trembling on the handle of his cane as he draws a final deep breath and steps forward. He lets out a deep groan as his ankle gives way with a horrifying wrench and he plunges into space. His first thought is simply to close his eyes and let himself fall. But his body disagrees; it twists, his right arm is flapping feverishly. His breath is stuck in his throat like a lump of lead. With a foreboding grunt, Herman stumbles onto the next step like a drunkard, the wooden cane clattering to the floor below him, his left hand scratching furiously against the blue tapestry. As he slips down the last stairs, his body still inexplicably perpendicular, the fingers seems to be searching for the absent handrails that Else had asked him to put up decades ago. Herman's ungainly feet wrestle with the floorboards and suddenly, after a series of complex, staccato movements on the last step, Herman's body suddenly stills as the heel of his left foot alights abruptly upon the tiles of the hallway with a sharp sound. Herman finds himself at the bottom of the stairs.

And there it is: that dreadful, yet often comical, suspended moment between stubbing a bodily extremity – most often a toe – and detecting the inescapable pain. The emerging warmth that suddenly flips over you like a tidal wave and reveals itself as an all-consuming agony. *You stupid old bastard! You bastard!* Gasping, slack-jawed at the foot of the steps, Herman feels the tingling of anticipation. *Here it comes!* It is unspeakable, a searing spasm up his right side from foot to jaw. He squeezes his eyes tight shut, clamps his right hand over his mouth as he locks his jaws together. But he still makes a high-pitched, jagged moan, his entire body shaking with the effort of staying upright. Herman staggers sideways and ends up leaning against the wall at an awkward angle while inhaling in brief gasps. He then forces himself to draw a long and heavy breath through his nose. The pain starts to pass. He notices that this breathing produces a slurred whistling sound. Herman moves his limbs cautiously, one by one, assessing the damage. His right leg is on fire, his foot numb; his neck hurts with every movement, sending vicious little stings down his spine. He bends down with some effort, slowly, slowly, snatches his cane with a hooked index finger, draws himself up once more and limps off to the kitchen, relieved. Then he realizes that he is giggling. Warm bubbles of saliva have collected at the corner of his mouth and before entering the kitchen he produces a worn handkerchief from his breast pocket – carefully as if he were a magician about the perform a trick – and wipes his face. After having carefully folded the cloth he turns the corner; the cane is now tapping on the brown kitchen tiles.

Beyond Loneliness

The solitary person is a cause of anxiety for a least two reasons: on the one hand, he or she represents a possibility facing us all; in many Western countries in particular, people are extremely familiar with stories of old people who live out their last years in abject solitude, forgotten and dejected. But at the same time, the solitary person may seem to challenge society as a whole and question the choices of the people who live their lives as socially active individuals. Could this be the reason why we so persistently label solitude as "loneliness"? This term incorporates the hope that the person still has a desire for the social, that, eventually, the lonely person will encounter new, satisfying relationships. Thus, solitude is, ideally, temporary. We may even actively seek out solitude through meditation, walks in the wild and so on. But isn't the purpose of such activities precisely the eventual return to society? This would then imply that the social is an ultimate value, an ultimate *good*. This notion makes the following quote seem strange. The famous anthropologist Claude Leví-Strauss ends one of his early books with this sweeping reflection: "To this very day, mankind has always dreamed of seizing and fixing that fleeting moment when it was permissible to believe that the law of exchange could be evaded, that one could gain without losing, enjoy without sharing." Levi-Straus speculates that drawn from a primitive, mythological core, a dream of solitude saturates all societies.

> *In other words, humans live in hope of an impossible world where one could live apart and keep to oneself.*

That anthropology has contributed minimally to shedding light on the human drive for solitude is, perhaps, of little surprise. Like the social sciences at large, anthropological analysis emerges from the idea that humans are first and foremost socially constituted: the self is a conglomerate of relationships, and these are a fundamental and defining part of human existence. It is a truism in anthropology to say that humans are first and foremost relationally constituted. Yet the line between truism and normativity may be hard to identify when anthropologists allow for the axiomatic understanding of “relations”, as underlying and motivating all human activity, to become not only what is – but also the way it *ought* to be.

The question remains: how can we understand the singularity, the hero of solitude, without ascribing to him or her the urge for social reintegration? While this question may seem overly abstract, the problem has real-life consequences – not least in relation to people who choose to live alone and who thereby do not live up to various ideals of communality and social inclusion.

> *Focusing on the ways in which solitary living is received in many Western countries today – for instance by being talked about in terms of “loneliness”, may offer a way to enrich the tapestry of anthropology and the palettes we choose from when living our lives.*

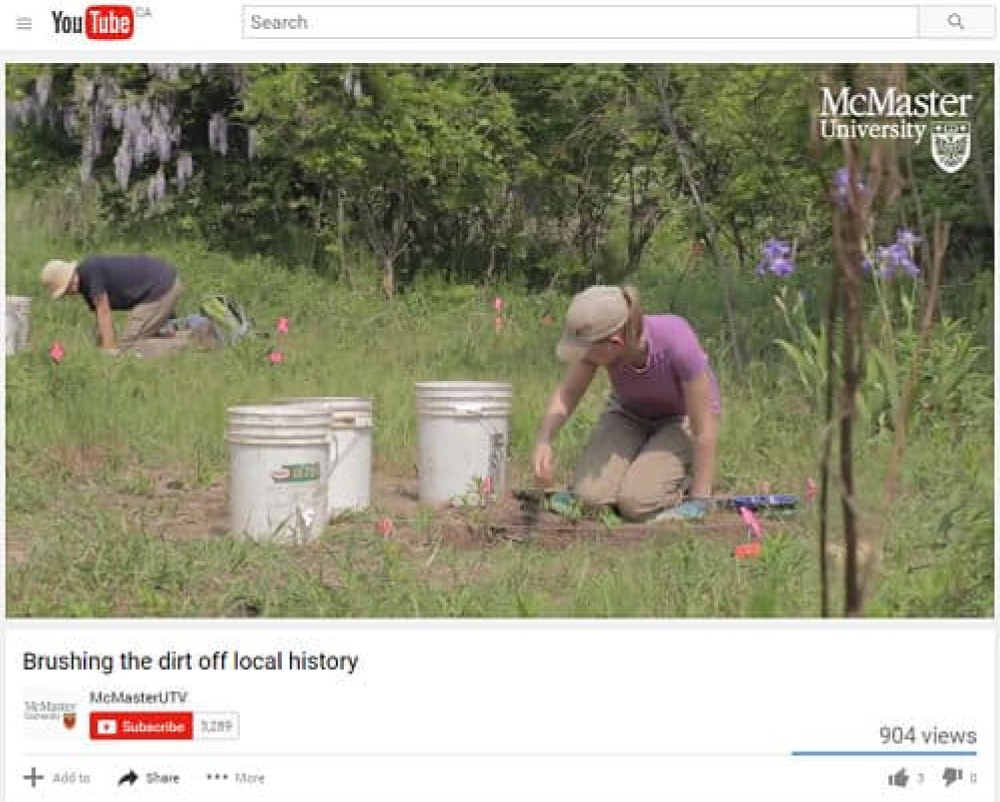
From the Ivory Tower to Open Classrooms to #ModernDayMargaretMeads

Meghan Burchell
February, 2017

Empowering the Next Generation of Digital, Public Anthropologists

In Yorkshire, England with a backdrop of bleating sheep and patchwork fields, archaeologists-in-training investigate, explore, and experience WW1-era military barracks, or what remains of them. They guide school children armed with trowels, who assault the carefully excavated trenches. Grey-haired, wind-weathered residents of nearby hamlets peer over the barbed fence, telling stories that are collected, queried, and valued. Apps are created. Interactive exhibits crafted. Articles written. This is a classroom.

Across the Atlantic Ocean, in Newfoundland, Canada, students work in a bright lab where once clean lab coats are patterned with dust, dirt, sediment and soil that is over 4000 years old. There are no artifacts to be found, but those are not what they are looking for. Their trowel is a microscope and the excavation takes place within a test tube. This is archaeology on a microscale. They are mentored, and they mentor each other; they design research and apply for grants; and they are successful. Sometimes they aren't. Twice a year they trade their lab coats for dress shirts and present their work at conferences. This too, is a classroom.



Elsewhere, in one of the most densely populated regions of Canada, connected to the whole gamut of humanity and simultaneously swallowed up by urban anonymity, there is a classroom in the basement of an industrial park that morphs into a digital framework, a virtual network of knowledge, dialogue, and inspiration. In this basement, over 50 years of archaeological practice resulted in the accumulation of over half a million artifacts, and this number continues to grow. Throughout the summer, students become research assistants who, through meticulous data entry transform forgotten collections by placing them into a digital context that links, sustains and conserves the past and connects communities to their heritage.

Around the world, students Instagram life in the #lab and their daily adventures in #fieldwork. Facebook groups are formed to share their funny pictures, organize #nerdparties, and coffee shop study sessions (#allnighter #studentlife). They blog their assignments, making anthropology visible and accessible in a much wider world. Their ideas are retweeted, commented on, and drawn into increasingly digital formats. The atmosphere is charged with ideas, and sometimes dreams of meeting an anthropologist who has inspired them. Some emerging anthropologists would #fangirl at the chance to get a selfie with Mead, Boaz, Benedict, Goodall, Schepper-Huges, Hodder, Harroway, Parker-Pearson, Joyce. This is a classroom that is unsupervised. It operates 24 hours a day, on phones, tablets and laptops, from bunkbeds, busses, kitchen tables, libraries and anywhere and everywhere with wi-fi and an idea.

> *Students are building a new classroom, one that doesn’t have any desks.*

Together with instructors, teaching assistants and staff, they are part of a movement that is crafting a new student and a new way to learn. These dynamic, open classrooms stand in contrast to the traditionally insulated, static campuses of universities. The seasonal ceremonies of exams, ritual cramming, consumption and re-distribution of high-caffeine, sugar-based feasts, and the sacred arts of writing essays, secreted away to sealed department closets and filing cabinets, or worse, shredders and recycling bins, are entrenched in the timeless traditions that built the monolithic ivory towers of academia.

The obscurity of campuses is complemented by the heavy financial burdens of tuition and textbook costs today that persistently exclude more than they include in the revered process of bestowing degrees, scrolls of success which, in the end, may or may not prove to be fruitful. These ceremonies, regalia, and symbols have lost their meaning for many students. No one cares about who carries the scepter at graduation; #graduation is the new scepter. This is what the public sees. They do not see the honours thesis, printed and bound though it may be, nor do they see the mountains of transcribed interview notes, library books, and archived drafts. The public sees the blogs, the selfies, the tweets. And although social media might not reach everyone (#whatsafacebook #dothetwitter), there's email, and printers. And someone who holds their phone up to show a friend, who tells their neighbour, who discusses it with their community group. And this is how anthropology is 'going viral' today.

#WhatsaPublicAnthropology

For universities to truly move beyond what has been criticised as cultish, or even colonial, to uphold the tenants of diversity, access and impact, the very concept of the classroom needs to be revolutionised. And for anthropology to take the next step to advance the pioneering works of public engagement, which transformed academic research in the twentieth century (#tbt), higher education needs to be designed to empower twenty-first century anthropologists. How can we provide the next generation with the tools, passion, and confidence to have public impact, if their education is, at its core, insular and inward-looking?

> *The answer lies in opening classrooms, physically and virtually, to take students, teachers and research public.*

The generation gap is never clearer in academia than when professors are overheard bemoaning the fact that their students don't do the assigned readings (but 'waste hours' on Reddit), or are consumed with chatting online, when they won't raise their hand in class. There is no end of clunky learning technologies that have been rolled out to engage these 'digital natives' that seem to only result in exacerbating the problem. Video captures of lectures, expensive hand-held devices to quiz and probe students, and private discussion boards on unwieldy web-based services have not produced the creative, engaged, critical thinkers that technology companies sold us on. When a student clicks yes or no to a question, or ‘logs on’ to fill out a multiple choice quiz, it removes their voice. It denies them the fluidity and flexibility to develop ideas and express themselves, work through problems and make connections to a world beyond the ‘digital learning environment’. These are just some of the inherent skills that are learned through anthropology and the foundations required to build strong, thoughtful, public anthropologists.

> *The truth is that these endeavours are still so far removed from the reality of anthropology that they cannot stimulate the public researchers of the future.*

Modernising learning should be about *augmenting reality*, not isolating students from it even further. This doesn’t mean strapping students into virtual reality goggles that bring them three-dimensional lecture experiences from the comfort of home (#ArmchairAnthropology) or writing lectures as BuzzFeed articles, or rather ‘listicles’ that can teach you ‘Ten things you should know about cultural appropriation’. Rather, it should be about giving students the chance to engage with experiences akin to those that are used in the careers they are preparing for.

Dynamic applications of technology have already infiltrated anthropological research – there are tablets for fieldwork, apps for taking ethnographic notes, social media outlets for building community collaborations, and printers that reproduce ancient artifacts in a matter of hours. To address issues of inclusion, access to the equipment necessary to engage in these technologies also needs to be available to all students. Moving away from the outmoded concept of the ‘digital native’, there needs to be recognition of the fact that not all students have smart phones glued to their palms. At the same time, most employers expect a high level of digital literacy, particularly from younger generations. Digital anthropology training is therefore not solely about public engagement, but also ensuring that *all* students have equal opportunity to build the skills necessary for employment.

Memorial Applied Archaeological Sciences Lab added a new photo to the album: MAAS lab.
July 8, 2015 ·

Another day in the lab...

Removing university students from these realities is a disservice to them, to the societies that fund research in the social sciences, and to the future of the discipline. So too is the practice of keeping students out of the public realm until they are 'experienced enough' to handle it. Let's face it – students are really good at public relations. They know how to talk to people, and sometimes they even enjoy it. They do a brilliant job at being real (sometimes too good of a job, but #NoOneIsPerfect). Whether they go out to the community in person, or collaborate with them digitally, they make anthropology accessible, fun, and inspiring. They are enthusiastic, approachable and down-to-earth. Dismantling the public image of anthropology, they also engage youth and secondary school students and inspire the future, future of the discipline. So why not make them more than just #instafamous, but actually active agents in the public anthropology that we strive for?

#StepItUp

It can start small: a blog-based assignment, writing an insightful 140-character tweet that captures an essay or research project's thesis, or crafting a poster or an infographic. Incorporating small changes to course frameworks and classroom dynamics break the ice for students and professors alike, who are often nervous about taking their work public. Teaching and learning are deeply personal, and the shift from the security and insulation of the ivory tower to the unpredictable and exposed open classroom can feel like working in a fishbowl. But progressive and collaborative development of public engagement skills serve to build confidence and competence in anthropologists of all levels.

Recording podcasts or vlogs instead of or alongside of in-class presentations expands audiences and opportunities for feedback. Participating in (or even organizing) museum open days and community walks transforms students into teachers. Storifying events, ethnographies, or anthropological discourse can be used as both an analytical tool and a way of communicating findings. Creating interactive web platforms disseminates research findings written for general audiences. Building digital maps and apps with communities showcases and preserves culture, memories and heritage. As students amass portfolios of projects that demonstrate their skills and qualifications, they also contribute to quality anthropological research that confronts mystery, myth and pseudoscience. If students have already mastered digital platforms by using software like Prezzi to show their results, Qgis to created layered maps and Piktochart to make infographics, the next challenge might be to design their own anthro-technology.

> *Let's be bold – imagine if classes were held in public spaces of campuses, libraries and parks, where any interested community members and students can be invited to join in, earn credit or just enjoy.*

Cyber hangouts and ‘unconferences’ can be used to further break down barriers and build collaborations that spill out of the university and gain momentum with each new connection. These approaches engage students in projects and networks that will provide them with lifelong opportunities, rather than a short semester of focus.

Ultimately, the classroom can be anywhere and anything. Today, whether enrolled at a university or not, we can all carry the classroom of anthropology with us. Instead of waiting for film roles to be developed, in an instant an anthropological moment is captured on a phone, messaged to a friend, emailed to colleague or connected to networks of images in virtual galleries. Anyone with a smart phone or tablet can record an interview or a cultural event at any time. Rather than wait years for a book to be published, data can be shared fresh from the field.

This also means that we need to update how we teach students about the act of doing anthropology, and how we conceptualise it ourselves. Suddenly courses begin with photo release forms and discussions of social media usage alongside the traditional spiel of academic dishonesty. New definitions of academic integrity and research need to be considered.

> *The ethics of digital anthropology are transforming day to day, and we need to collaborate as much on responsible media usage as on the subjects of anthropological research.*

We also need to understand and address boundaries.

#SorryNotSorry

This very process, however, builds accountability into the higher education system, which has been sorely lacking from traditional university programs. Whenever anthropologists write or speak about research, their words, ideas, and conclusions have impact. Sometimes they create positive changes, galvanise communities, advocate for them. But sometimes they can be hurtful, confusing, or even oppressive. Anthropology has a deeply concerning colonial history of disempowering cultural groups, and the legacies from this troublesome past create frequent pitfalls today. Public anthropology is about healing those fissures that have created divides between researchers and communities by building collaborative relationships, recognizing other voices and authorities, and creating space for alternative ways of knowing. However, as soon as we close students off in classrooms and the practice of private essays and exams, the sense of duty and responsibility dissipate.

Opening classrooms does not simply mean setting students loose to wreak havoc on the world. These experiences have to be complemented with frank and insightful discussions of these histories of tension, self-critique and reflection, and structured opportunities to take action. The good thing is that lessons in decolonising language come naturally when students' words are actually going to impact people. Complex issues in ethics, politics and practice are best explored and understood through application.

Modern Day Margaret Mead
@mdmmead

Lights! Camera! Action! Our class vlogs about #anthropology today are coming to a blogisphere near you!

11:48 AM - 25 May 16 - ...

However, there are also broader questions that remain, blurring the lines of the various 'publics' in anthropology. How far do ethical policies stretch? If an anthropologist tweets on their own time, are they obligated to follow the ethical frameworks of universities and professional associations? Does public anthropology mean there is no such thing as 'private' for the anthropologist? Who is responsible for mediating and shaping students' use of social media on anthropological (and non-anthropological) subjects? As digital media advances, and research is crafted to be more and more centred on the public, the visible, and the impactful, the scales of public expand to complicate long-standing ethical and political implications of research.

We are all #ModernDayMargaretMeads

The current challenge, then, is to redefine public anthropology, and who gets to do it. Part of that is weaving students into the process; the other part is developing teaching and research alongside and in combination with modern technologies. Reconceptualising higher education from structured, closed classrooms, to open, accessible and inclusive physical and digital environments for engagement, innovation, and advocacy, is at the core.

> *This isn’t about gimmicks; it isn’t about a publicity stunt, but rather embracing our public responsibility.*

The responsibility doesn’t simply fall to university instructors, either. Opening up classrooms only really works if there are people on the other side to engage with students, share their perspectives and collaborate. If public anthropology is the ideal, then we all need to be part of the discourse, read blogs, listen to podcasts, be an active voice in comments sections. Be critical of information, news headlines, biases and discourse, and demand better. Take opportunities to collaborate on projects, infiltrate classrooms, build bridges between campuses and communities, near and far. We all need to be part of defining and creating what is relevant, in anthropology and beyond.

Margaret Mead, one of the earliest public anthropologists, measured “success in terms of the contributions an individual makes to her or his fellow human beings.” Although she didn’t tweet her vision for anthropology, it embraced open dialogue, impact, and cooperation. Today, what might start with a hashtag, a poster in a coffee shop about a public lecture, a field course with a syllabus defined by community groups, a free, open access book, might achieve the goal of anthropology, as defined by Ruth Benedict: making the world safe for human differences. With new visions of what anthropology could be, how it is taught, and to whom, could we even go one step further than these early public anthropologists imagined, and make the world *thrive* on human difference? #DareToDream

Illogical Objects and What they Tell Us #MeadCompetition

Robyn Eversole
February, 2017

Most objects in our households have a purpose. They clothe, seat, feed or transport us. Some object do extra duty; they communicate something about us that we want to say: that we are wealthy, or on-trend, or knowledgeable in a certain field. You can learn a lot about someone by looking at their objects.

Anthropologists have long experience studying objects. They can pick up a spearhead, or a piece of broken bowl, and tell you a lot about the people who used it: when they lived, what they ate, who they traded with, how they lived, and even some of the things they believed about the world. When the people themselves are no longer here, their objects can still speak for them.

> *Indeed, it is amazing what objects can say.*

As gifts, they can prove we are generous – and how highly we value the recipient. As commodities, they can drive economies, mobilising labor and organisations to produce and distribute them. The anthropologist Arjun Appadurai has described objects as having *social lives*. Life revolves around them – and objects join in. This dress, bought vintage with the beads running round the edges, may have seen more parties than I have.

Some objects, indeed, seem to develop a social presence: something far out of proportion to their size or usefulness. As an example, I once met a teapot with a broken spout. It was made of squat brown glazed clay and sat high on a shelf in the office of a colleague. The community development manual on the desk in front of me had a sketch of a teapot on the cover, as did my colleague's letterhead. Same teapot.

It was, I learned, an *important* teapot. That particularly pot had travelled the district to rural community development meetings for over a decade. It had sat on kitchen tables brewing the tea while women sat around it and talked. The topics changed, the tables changed, but the pot was always there. It was such a central pot that it had become the emblem of the Centre, and of a whole methodology for rural community development work.

In one of countless journeys from car to table, the pot had fallen, and it was no longer used to serve tea. Now it sat amid annual reports and scholarly books in an office full of busy coffee-drinkers: an illogical object, but one with a great deal to say.

Doll Scraps and Unshuttable Cupboards

The teapot was, of course, a one-off: one teapot (now unique thanks to its tumble) that meant something to one particular group of people, who no longer drink tea, but remember when they did. The world is full of objects like that teapot: from lucky socks, to the crown jewels. For someone – whether a person, a group, or a nation – the object means more than it would appear on the surface.

English and Australians enter annually into cricket combat for a small heap of wood ash encased in a trophy cup. Traditional Andeans keep old textiles safe as the most prized community possessions, a woven local history. The Olympic torch is passed from hand to hand, regardless of any requirement for light.

> *Such objects clearly have a social presence: they signify something more than themselves. Like flags or national treasures, they are often a complex mix of history and symbols: of what-we-were and of what-we-aspire-to-be.*

The first car is often hard to sell; the first doll, in rags and tatters, is boxed and stored but never thrown away. And for some of us, its gets worse: the clothes of the person we loved – cupboards full, untouched; the books we might need to speak with again, following us from country to country, heavy and unread; the cupboards overflowing with objects that have had lives and, having lived, cannot be summarily disposed of by any ordinary means.

I have a great admiration for those people who make a business of clearing other people's clutter. *Clutter* is the term that most use: an interesting choice. The word names up the unnecessary and unwanted, with overtones of lightness and insubstantiality: clutter, unlike *mess*, is easily removed.

While I suspect most households have a certain amount of *clutter*, it is dangerous to assume that our cupboards are necessarily filled with insignificant, lightweight objects. I wonder, for instance, how a decluttering professional would manage in the West Virginia closets of my aunt:

'Don't go in there, that's all the kids' stuff.' (The youngest child of the house is fifty).

'No, don't open that box, that was my mother's.'

'No, leave that, we need to hold onto that.'

I wonder how often those who wish to *de-clutter* come face-to-face with socially alive objects. Few of these objects have lived long enough to become family heirlooms, let alone national treasures. Yet they have been amid people's lives long enough to resist easy disposal. It is illogical to keep them, they just take up space; but they mean something that cannot be easily discarded.

In poor countries, where there are fewer objects, these objects are easily seen: pinned to an adobe wall, hung over a nail, tucked onto a shelf for safe-keeping. In wealthy countries, we need cupboards to house them, attics, even *storage rooms*. An enterprising stranger might well call these objects *clutter*, but up close, they have weight. To de-clutter, such illogical objects must be intentionally killed off – *yes, get rid of that old thing!* – severed from their meanings with pure cold rationality. Or, if that is distasteful, a paid professional can quietly make them disappear.

Of course, there is still a problem. The object goes, but the meaning stays. Months, even years later, someone will inevitably ask: *Whatever happened to that?* They look for the missing object, and they feel bereft. Something has been lost.

Yardsticks and Footy Scarves

Some objects, then, have a particular meaning for particular people. This meaning may be shared within a household, family, or a community, but not further afield – one person’s treasures are, to invert the saying, another’s trash. The teddy bear face down in a puddle quickly turns to nothing but litter.

> *Socially alive objects are only alive to whom they matter.*

But there is another category of objects that are, at one level, less ‘significant’, and at another level, much more so. These are the objects that we keep around for no obvious practical or personal reason. They are not useful objects, nor are they objects that we imbue with value through our particular shared history together. Rather, they are objects that we simply *have*: in household after household, without much attention or notice, but consistently, without question. These are the illogical objects that we take for granted.

Practically every household, for instance, has a television. At one level televisions are eminently practical objects: they provide on-tap news and entertainment, and they enable people to feel socially connected by ensuring that they have shared topics to discuss with friends and colleagues. Of course, for the same reasons, televisions are highly illogical: they provide social connectivity by encouraging people to stay alone in their houses.

What sorts of illogical objects do we keep in our households? When I was growing up in the United States in the 1980s, we had yardsticks. For those unfamiliar with the concept, a yardstick is a piece of wood, rather like a ruler, but three times as long: measuring exactly one yard. A yardstick is intended as a measuring device. Nevertheless, it is too long and unwieldy to measure anything small, and too short and inflexible to measure anything large.

> *The yardstick is the classic illogical object: useless for measuring, yet every household had one – at least one.*

It would have been odd not to. When I arrived in Australia and needed to fetch a fallen object from behind the fridge, I asked my Australian husband to hand me a yardstick.

‘*What’s that?’* he asked.

Like iced tea and canned pie filling – both eminently practical objects from my childhood in the States – I could not conceive that yardsticks were simply *not here*. In the past decade, both the iced tea and the pie filling have found their way to Australia, but the yardstick (or its metric equivalent) has not. And why should it? Despite its omnipresence in the kitchens and utility rooms of my childhood, it was an object that never did what it was designed to do.

So how did the yardstick infiltrate American homes? Quite simply, yardsticks were free. Next to ballpoint pens and photo calendars, they were the most popular promotional object distributed by local enterprises. Yardsticks were free; in the words of the capitalists, they could be obtained for zero outlay. Not only that: they *looked* practical. They were *measuring devices*. So, unlike other free things, they stayed. The yardstick came to stay in households across America because it met a need – not for measuring, but for having the capacity to measure, the appearance of the well-measured household.

On the other side of the world, in Australia, there are no yardsticks, but there are certainly illogical objects. In a country where the temperature hovers close to a hundred in summer and rarely drops near freezing in winter, most household cupboards contain long, colorful woolly scarves. These look perfect for winter in Montreal or Vermont; but on a warm day in Australia, people take them out and wear them down the street.

They are *footy scarves*: an item of clothing designed to be worn by fans to show the colors of football teams. These scarves have nothing to do with keeping warm. Yet it is expected that people will likely own such a scarf – or the equivalent woolly hat or ‘beanie’ – to express the identity of their team. And everyone has a football team: indeed, *What team do you go for?* is perhaps the most common conversational question in Australia after ‘what do you do’ and ‘where are you from?’; it is as much a part of an Australian’s identity as their surname or profession.

If Americans in the neoliberal eighties all had a yardstick somewhere in their domestic realm, Australians – a deeply tribal people – are sure to have a footy scarf in theirs. The yardsticks do not measure; the scarves do not keep us warm. They are illogical, but no one cares. Each is a kind of domestic talisman: something that is kept almost unconsciously, unquestioned. Indeed, not to have one would be nearly unthinkable.

And Now About the Guns

In the eighties nearly every household in America had a yardstick. In the 2000s, it seems, nearly every household has a handgun. Things changed that quickly. Yet when I return for a visit, no one seems to notice. The guns are just there, as if they had always been there.

I first sensed something was wrong when I took my family to America a few years back. We were visiting a cousin, and my daughter, then a toddler, wandered about while the grownups talked. At one stage I lost sight of her up a short flight of carpeted stairs that led to the bedrooms.

‘Is there anything she could get into up there?’ I asked: breakables, makeup, possibly medicine?

‘Oh, said my cousin, up there – that’s where we keep the guns.’

I vaulted upstairs. The tone of the conversation had barely shifted; there was certainly no sense that keeping guns (I did not ask how many) in a bedroom was anything but perfectly normal. Indeed, as we moved from relative to relative, from house to house, I was startled to discover that I was the one with odd ideas about bedrooms and guns.

‘What do you want them in your house for?’ I asked. ‘Aren’t they dangerous?’

‘Of course not,’ my relatives told me over and over. ‘Not if you know how to use them.’

‘And what do you use them for, then?’

The answer was always the same: *to protect ourselves*. From the point of view of everyone in my extended family – located along a long socio-economic spectrum – guns had become, in a handful of years, an eminently logical household object. Of course, some of the uncles had always had rifles for hunting. But the new object of choice was the handgun: a small thing, capable of being tucked under a bed or into a drawer, pretty enough for a handbag, always nearby.

I disliked the thought of sleeping in houses with guns and relatives who *knew how to use them*. But this was just a vague concern, a philosophical position, really, so long as they all guaranteed to me that the guns were away out of the reach of my curious child. Until the day my mother commented casually,

‘Yes, your brother came home late one night, and I nearly shot him.’

They laughed: a moment of mistaken identity at midnight, the sort of thing that could happen to anyone. Like when my daughter pointed out the heavy holster slung over the arm of a cousin’s La-Z-Boy:

‘Look, you left your gun out! I’m telling Mommy!’

My cousin hadn’t lied; he had simply forgotten it was there. The show guns, the nice guns, were safely in their cases locked away as promised, but this one was just part of the furniture. I am unsurprised when I read the statistics on America’s killer children – many of them toddlers. I’m sure parent *mean* to put the guns away. But handguns are illogical objects. They are objects designed to kill, kept in intimate domestic spaces in order to keep people safe. Even when all the data tell us they do exactly the opposite.

A few months back, my brother attended the funeral of a family friend, a girl who returned home from a party after dark and was shot dead by her own mother. Such impossible things seem increasingly frequent in a country that seems more foreign at every visit. From across the water I can see that the domestic handgun is anything but logical. But logic is not the point. The handgun is emotionally powerful: it is a modern talisman. People *believe* this object will keep them safe, that it will place them in control in a dangerous world. The fact that this does not work is surprisingly easy to ignore.

> *The power is not in facts but symbols: the gun is kept close, not because of what it does, but because of what it means.*

Illogical objects always have a deeper reason for being in our cupboards, in our homes, and entangled in our intimate domestic lives. Anthropologists can show us how to look at objects and hear what they are telling us: about others, and about ourselves. Once we understand this, we can clear the clutter without disposing of things that make us mourn. We can question the objects we take for granted, and unwrap their real purpose. And we can choose: what to keep close, and what has to go.

The Biological Fallacy of American's Race Problem

#MeadCompetition

Hannah E. Marsh
February, 2017

I love my hometown of Baltimore, Maryland. I'm sure you've heard about Baltimore lately, with its sagging school system, serving a mainly African-American population; its yet again exploding minority murder rate; and the big one, the non-guilty verdicts for police officers involved in Freddie Gray's fatal arrest in April 2014. After Freddie Gray's death, Baltimore's long-brewing racial tension exploded in street protests (deemed riots by the media), where mainly African-American Baltimoreans called for respect, and greater equality. Through these events, cable news media dramatically portrayed a seemingly insurmountable tragedy: Baltimore has a Race Problem.

As a Baltimorean, I crinkled my brow and thought “what is a Race Problem?” It sounds harder to climb than Mount Everest, and harder to solve than any theoretical math equation. As a physical anthropologist, I answered my own question with “actually, race doesn’t exist.” If you said “Huh?” right there, let’s do what America has been avoiding lately; let’s talk about race.

> *Biologically, race doesn’t exist. Socially, we have a real problem with this ugly race thing that we think is biological.*

When I say this, here is the big question that runs through the mind: I can see that people look different; aren’t those different races? Great question! Let’s start by analyzing what “a race” is, and what biological traits are wrapped into “a race.” The main race categories in America are White, Black, Asian, Native American, and Other: two opposite colors; one continent; an ethnic group; and a catch-all category including billions of people and Chewbacca. These are not biologically defined groups. No human is biologically white or black. These are social terms; they have a social existence, and they have social power. Let’s look at race in America to separate out this false thought that race is biological, first by taking a walk through our history, and then looking at our biology. For Baltimore.

Let us start by recognizing that America has a Race Problem. Here we are at the Race Problems Anonymous meeting: “Hi, my name’s America, and I have a Race Problem.” “Hi America,” say the rest of the countries on Earth. In the spirit of these meetings, let’s focus on our own problems, starting with the first time America took a drink of its race classification system. The United States was born with racial divisions in its blood, because we inherited it from our parents: European exploitation of Africans through slavery. Europeans brought their addiction for owning people to North America, and the colonies thrived on it. Simultaneously, the American colonies agitated for freedom from Great Britain’s oppression, culminating in the Declaration of Independence that stated “…all men are created equal, …with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness.” Well done, America; rights for everyone. Wait a minute: what did the word “men” mean when the Declaration’s authors and signers owned slaves at the same time?! The word “men” actually meant White, land-owning, wealthy males. Women, poor people, and non-White people were not protected, as seen in the birth of the United States, where these people were not allowed to vote, and White people could continue to own African and Native American descent people. For the next 87 years, the US continued slaving, denying those “truths” for many people in our country.

Now, how does one celebrate their own unalienable rights while concurrently taking those same rights away from their neighbors? Create a social system by which people are dehumanized. This is where our racial classification system came in.

> *Race was used to judge the value of a human being. If someone was African, or of African descent, they had no rights, and could be sold for a negotiable price.*

If someone was of European descent, they were considered priceless, unable to be owned because they had unalienable rights. This social value system was easy and fast to judge from a distance because it used physical traits to mark group membership. Dark, kinky hair; dark skin; wide nose; these physical traits were said to be the hallmarks of beastliness, making ownership of people with said traits acceptable. The traits are biological; the idea that these traits mark someone as property is not biological – it’s social injustice.

Finally, the United States abolished slavery, but couldn’t fix the *social* stigma that it had ingrained into people’s psyche. The racial categorization system was no longer used to officially and monetarily value people, but it was still used to judge their *social* value. Bank loans are a great way to think about your social value. If you request a loan for a house purchase, the bank then searches vast amounts of records to determine if you are worthy, or valuable, enough for that loan. This information should only involve your financial history and practices. The bank doesn’t need to know anything about your biology; timely loan payments are not coded for in DNA. However, frequently in America, people who can be visually classified as Black based on biological traits, have been considered not valuable enough to invest in by loan officers who were White.

This is why America stands at the Race Problem Anonymous podium. We have an active problem with judging people that started with slavery. Even 151 years later, we are not sober at this meeting. We are, in fact, terribly hungover from slavery.

> *We know judging people is wrong, but this racial classification system is deeply ingrained.*

We have tried to stop, to get clean with phrases like “we don’t see race,” and “post-racial America.” But America finds itself back at the same Race Problem Anonymous meeting year after year, because we keep doing things like locking the car doors only when young African American men walk by, and harshly judging Black women for being Black, and women. We’ve tried not talking about race, but it’s not working. So let’s dive into the biological markers we are hung up, and hungover, on.

This social race system uses biological traits to determine your membership in a particular group. Those traits do vary around the world. They do not, however, give you any information about the *value* of a human being. Take hair shape for example. Hair shaft cross-section dictates the overall behavior of your hair, from puffy to totally flat. Oval hair shafts create hair that is silky and wavy. Flat and ribbon-like hair shafts result in a kinking behavior. Perfectly round shafts are associated with straight and course hair. Many individuals have more than one shaft type growing on their head at once. Do any of these hair types predict how many advanced degrees a person will achieve in their lifetime? No; having oval hair shafts does not, for instance, inhibit or enhance your ability to write a Master’s thesis. Does an oval shaft mean the hair will be wavy? Yes. Biologically, there is no *value* inherent in that hair shaft morphology; it’s just part of normal human hair variation.

Another biological trait the race system has hijacked is nose shape. In America, thinner noses are included in the physical traits of the “White” race, and wider noses are included in the traits for the “Black” race. Let’s look at the biology of noses. Noses are actually one situation where, on average, we do see different shapes between some populations. For this trait, I’m going to focus on the average skeletal nose width (the boney part, not the nostril part) in European descent people, and in African descent people. What we find in studies of human variation is that African decent people frequently have rounded and wide anterior nasal apertures (opening for the nose in the skull), and European decent people tend to have narrow and tall anterior nasal apertures.

> *What does this trend, wide in African descent and narrow in European descent, mean? If we use the thinking of America’s race system, wide means unworthy and narrow means priceless. Does a nose shape biologically show that? No. Biologically, we see something that tells a story of human survival in extreme environments.*

Humans have lived in a multitude of extreme climates around the world: hot and humid, hot and dry, cold and wet, and cold and dry. Extreme climates present physical challenges to human populations, and, over time, we see that human groups physically change, or adapt, to their environment. Nose shape is an excellent example. What does the nose do? It’s most important function is to deliver warm, moist air to the lungs; the lungs are made of warm, moist, and incredibly sensitive tissue. Have you ever taken a huge breath through your mouth on a cold, clear, crisp winter day? Straight away, you’re coughing, your chest is burning, and you’re thinking about moving to Key West. That burning results from the damage done by the cold, dry air to the sensitive lung tissue. The nose protects the lungs by slowing down air movement, warming and moisturizing it inside the head before entering the lungs. In fact, we find that the thinner a nose is, the more the air bumps around inside the face, warming and moisturize it more completely. If we look at noses around the world, we see that people who live in cold and dry climates have thinner noses; these groups have adapted through time to better protect their lungs. Northern European populations survived Ice Age Europe for 20,000 years, and many European descent Americans have inherited their narrow nose shape. For people living in Africa, we see that the air is already warm, and frequently humid; there is no survival benefit to having a specific nose shape, and therefore nose width is not restricted to a narrow size. We find average nose width is larger in African humans than in European humans. African descent Americans have inherited these wider noses.

These are nifty clues to our ancestors' survival around the world. Vladimir Putin? Descended from cold-adapted ancestors. Viola Davis? Descended from warm-adapted ancestors. One of these people speaks out for the respect of women and African Americans, and wins awards for her great work. The other is a former KGB agent, invades neighboring countries, and rides bears while shirtless, according to the internet. Does nose width have anything to do with the trustworthiness of either person? No.I'd trust one with my wallet, and I assume the other has already stolen my wallet, based on their activities and habits.

> *That is how we should determine the value of a person, based on their personal activities and habits, not on their biological traits.*

I'd like to delve into one more biological trait America is obsessed with: skin color. It is the easiest trait to "diagnose" from a distance, so it's everywhere: #OscarsSoWhite, and #BlackLivesMatter are a couple recent uses of these "race trait" terms. Let's dig into the biology of coloration. Skin, in humans and other animals, creates little molecules of pigment, called melanin, which are then stored in the skin's upper layer. Melanin is brown. Here's a major point I'd like to make: we are brown. We are not biologically white or black. We are various shades of brown. Aloe Blacc and Barry White are darker shades of brown than Shaun White and Jack Black, but they are all brown. Humans present a vast range of melanin production. Where does this variation come from?

Let's take a walk through our evolutionary past. *Homo sapiens*, the species we all belong to, evolved and originated in Africa, the oldest member of our species having been identified at the site of Omo Kibish, Ethiopia, aged 195,000 years old. Humans continued to live in Eastern Africa while endeavoring parts of the population spread around the continent, with groups living on the coast of South Africa, 3,881 miles away, by 120,000 years ago. Eventually, groups from Eastern Africa began moving into the Middle East around 70,000 years ago. Humans then spread to Southern Asia and Australia by 50,000 years ago, then to Europe and Northern Asia about 40,000 years ago, and lastly into North and South America about 15,000 years ago.

What we realize from this is that A) we are all African, and B) we were all darkly pigmented when we lived in Africa and when some ancestors left Africa.

> *That's right, until recently (and I mean within the last 7,000 years or so), we were all Black.*

When people walked out of Africa and into places like Europe and Asia, those ancestors were Black. Actually, they were all very dark brown, as melanin is brown, but we should question what modern color labels mean to ourselves today, and how those labels would be applied to our ancestors.

Now, we see today that there is variation in melanin production by people around the world. Generally, we see that humans who live closer to the North Pole produce less melanin, while people who live near the equator produce much more melanin. This suggests a trend in relation to environmental factors, similar to that of nose width. Now melanin doesn't cool the body, but it does protect from something else that increases in intensity closer to the equator: ultraviolet radiation (UVR). UVR can penetrate the skin and do damage in two deadly ways. The first danger is that UVR can mutate skin cell DNA, causing deadly skin cancer at a very young age. The second danger is that UVR can enter the blood stream and destroy folic acid, a B vitamin vitally important for proper growth of a fetus's nervous system during pregnancy. Intense exposure to UVR can result in early death in the first case, and a reduced ability to create healthy babies in the second case. Therefore, what we see in areas of high UVR is skin that produces a lot of melanin, which absorbs UVR before it can get to DNA or the blood stream. Near the equator, melanin saves our lives.

When people left Africa, they continued to produce large amounts of melanin while living in Northern Asia and Europe. Eventually, northern people started producing much less melanin. What triggered this change? We do find that UVR is not all bad, and that humans need to absorb some UVR to produce vitamin D. We make our own vitamin D when UVR passes by the melanin and creates a positive chemical change in the skin’s middle layer. One of the most important vitamin D jobs is to initiate calcium absorption from food. Calcium builds healthy bones, among other things. For the survival of populations over thousands of years, the most important boney structure is the pelvis, because to keep a population going, there need to be babies. Babies need to pass through a well-shaped pelvis, or they can get stuck in the birth canal, resulting in the death of both mother and child. Too much melanin in the skin blocks vitamin D production in low UVR locations, such as Northern Asia and Europe, resulting in malformed bones.

Interestingly, early humans in Northern Eurasia consumed enough vitamin D in their diets to off-set their high melanin production, until they started farming between 10,000 and 5,000 years ago. Farming restricted the range of nutrients people ate, and all of a sudden, people needed their skin to make more vitamin D in these low UVR intensity areas. Northern groups no longer needed UVR protection; they needed to birth babies. Therefore, we see two recent mutation events, one in Asia and one in Europe, where people with new gene variants for low melanin production became the most common lineages in the north, able to absorb what little UVR shined on them.

> *Biologically, what we see in people’s skin color is a great story of survival and change. As humans have moved around the world, we adapted to environmental challenges.*

Darkly pigmented people survive and have healthy babies in the face of high intensity UVR. Lightly pigmented people survive and have healthy babies in the face of low intensity UVR. That’s what skin color actually means. Biologically, we are all survivors. Jack Black’s northern ancestors ate less vitamin D at some point, and then produced less melanin, surviving for thousands of years and genetically contributing to a very funny person. Black’s pigmentation doesn’t make him better than Barry White, whose ancestors warded off the effects of high intensity UVR for thousands and thousands of years and genetically contributed to a fantastic singer.

> *These biological traits tell fantastic stories of our species. In the end, we are all priceless. This is how race doesn’t actually exist.*

If we think back to standing at the podium of the Race Problem Anonymous meeting, America needs to talk about race, not ignore it. When we recognize that race classification is falsely based on biology, we can separate our judgements from our genes. The differences between White and Black are not coded in our DNA; our judgements are falsely dictated by an ugly and oppressive social system.

> *The great thing about social systems is that we make them, and we can break them. We broke the social system and legal oppression of women.*

Votes; land ownership; pants! Yes, America abolished slavery, but we haven’t yet abolished this social hangover of judging people based on their looks. Our race problem *is* surmountable when we recognize that we are biologically diverse, and socially the same.

As America speaks at the podium, our country should finish with, “Next time I see a person who looks differently from me, I’m going to think of our differences not in terms of an ugly value judgement, but as evidence for our shared chapters in the story of human survival. We may be physically different, but we’re all just struggling humans, surviving the best we can.” Let’s embrace our differences. For America’s future. For Baltimore.

Featured image (cropped) by Ketut Subiyanto (Courtesy of Pexels.com)

The Transformation of One of New York City's Most Famous Squats #MeadCompetition

Amy Starecheski
February, 2017

The notorious C-Squat has become a kind of “house society” in which people are tied together by their connection to shared property and communal history. But can it survive going legit?

I was surprised when I first met the man nicknamed Bald Mike. I was told I should approach him with caution: He had a temper and could be paranoid. And so I did a double take when I was introduced to a tidy, older, white-haired man walking a sweet hound dog toward the basement of C-Squat, a famous house I was studying as an anthropologist in New York City from 2010 onward. I was expecting someone dirty, who maybe had face tattoos, a pit bull, and a nasty attitude. But Mike seemed truly happy to meet me, perhaps in part because he wanted my help with his project.

In the world of squatters, it matters a lot who “opens” a building.

There is a whole lingo around it: In Amsterdam they call it “cracking” a new squat, and squatters are called “krakers.” Taking the first audacious step to break into an abandoned building and claim it provides not only a much-needed roof over one’s head—it gives a person bragging rights. In the complex networks of family-like social ties that bind squatters together, the person who opens a building is like a founding ancestor. People who open squats can become mythic figures.

Mike was one of them—and not just for any squat. Residents of C-Squat are known worldwide as being among the hardiest of Lower East Side squatters. After he opened the place in 1989, C-Squat became a punk rock mecca: an incubator of influential anarcho-punk bands and home to truly legendary and wild basement punk shows.

Mike lived there through the early years of C-Squat but left in protest shortly after 2002 when the house members, along with those of 10 other Lower East Side squats, decided to undertake the lengthy and turbulent task of bringing the building up to code and making the residents legal homeowners. He said he wanted no part of this massive change to the building's culture. But by 2010 Mike was back, and he was trying to preserve some of the squat's history before it was lost for good.

The five-story tenement at 155 Avenue C is one of the most famous squats in an area with a rich history. In the city's Lower East Side, just a few miles from Wall Street, squatters claimed and held city-owned abandoned tenement buildings in the 1980s and '90s in a city where private property rights are tightly enforced. The structures they made into homes were barely fit to be called buildings. Built before the start of the 20th century, run down by over a century of heavy use, neglected by landlords, then burned, abandoned, stripped by scavengers, used by junkies, and damaged by a city government trying to discourage squatters, they were more like shells. New York City squatters had to create electrical and plumbing systems from scratch, replace giant structural beams, and rebuild brick walls.

When C-Squat was opened in the summer of 1989, there were no stairs and no landings; apartment doorways faced into a void, with only a network of ladders to connect them. "It was like a stage set," remembers Popeye, a longtime C-Squat resident who still lives there today. "There was much drama of getting dogs up and down, and drunks up and down."

C-Squat's basement underwent a transformation from a near disaster a few years into the squatters' occupation. "That big open space [in the back] was not planned," recalls Tauno Biltsted, another early C-Squat resident. "Essentially, the whole ground floor back of the building, those joists, collapsed. They just collapsed one night. And I was in the building when it happened. … And it sounded like, it was like a ship or something. … It was like creaking, … and then it just, like, the whole freaking thing, … it just all collapsed."

Rather than rebuild it, residents decided to work with an architect ally to brace the walls and ceiling, and keep the open area as a two-story event space. At first, it got kind of gross, residents remember: With no glass in the windows on the back wall, the space filled up with water when it rained and was a catchall for human and animal waste. “Every dog turd, because the dogs would shit down there, or cat turd, or human turd on the basement floor one summer blossomed into this amazing fungus … it sprouted, like, fur, like Gremlins,” Popeye says. “Iridescently, pearlescent, blue-gray silver fur. … We should have taken a sample to the Smithsonian or something.” Hepatitis started to spread through the filthy water, he recalls. “The place smelled awful,” he adds.

But it was also a phenomenon. The walls were layered with graffiti. Residents’ bikes dangled from every available surface. Later they built a legendary indoor skate ramp. The basement was where the famous punk shows were held. There was a balcony from which the timid could watch the swirling pit and onlookers could throw beer onto the revelers. The basement was also where travelers stayed: young punks—often runaways—in some cases with drug problems, who circled the country hopping trains, finding food in dumpsters, and weaving the networks that kept punk rock culture alive.

So it was a big change when, in 2002, C-Squat residents agreed to join a loose network of Lower East Side squats in a deal they had negotiated with the city to go legal. Each building would be sold to a nonprofit intermediary for US$1. The nonprofit would take out loans on the squatters’ behalf to renovate the buildings and bring them up to code. (Such moves are aimed at preventing horrible tragedies like the Oakland warehouse fire in December 2016 that started in an unpermitted artists’ collective, but they also present huge logistical and financial challenges.) Once each building was legally inhabitable, it would be transferred to its residents, along with the accumulated renovation debt. The squats would become low-income, limited equity co-ops—and the squatters, indebted homeowners.

> *Somehow, everyone involved imagined that this would be relatively easy. It wasn’t.*

There were countless complications, hang-ups, and disputes. In 2007, C-Squat closed their basement to the free flow of travelers: With the nonprofit and the bank scrutinizing their governance, police noticing drug activity in the building, and building inspectors poking into every corner, they could no longer accommodate a large, transient population. This outraged many and brought on accusations that the squat had "sold out." The residents of C-Squat's 16 apartments, who made decisions using a mix of consensus and voting, were torn between their tradition of welcoming anyone who needed a place to crash and the pressures of impending homeownership.

When Mike returned in 2010, he argued that he deserved one of C-Squat's much-coveted apartments since he had opened the building. There was some dispute about this. Another old-school squatter, a fire-dancing performance artist who went by the name Vlad, claimed that he'd been the one to first cut the lock and enter C-Squat. Horrified at the disgusting and dilapidated state of the building, he'd fled in search of someplace better, he said. Before he left, he put on his own lock. And then, in his version of the story, he gave the key to Bald Mike. So perhaps Bald Mike did something less adventurous than cracking the building: Maybe he simply turned the key and walked in.

Either way, most residents accepted that Bald Mike deserved recognition. The important thing was that, unlike Vlad, he'd stayed. He had worked incredibly hard, rallied others, and anchored the growing community through the difficult early years of hauling rubble, peeing in buckets, being half-frozen in winter, and hauling more rubble. Some C-Squat residents thought that this entitled him to a permanent, unrestricted right to a home in the building. Others argued that, since he did not intend to pay for his space, as others would have to do once the squat legalized, the collective could not afford to house him. As a compromise, they gave him a private, windowless space in the famous basement, where he shared a small room with the newly installed electrical panels and the boiler.

I first came to C-Squat in the spring of 2010, wondering how this group of longtime squatters was handling the transition to collective homeownership. After

I was introduced to Bald Mike in 2012, it took a few weeks of knocking on his basement door before I finally caught him at home.

When Mike let me in, I found his space clean, quiet, and dry. He had a cot, with his hound dog Stella's smaller cot beside it, and his stuff was piled up in boxes around them. By sitting at the foot of the cot, Mike could access his workstation: a scanner hooked up to a dirty white MacBook with tape over the built-in video camera. Piled high in all directions were boxes of negatives. He had not only participated in the earliest days of C-Squat's occupation, he had documented them. His large-format negatives managed to capture the beauty of the raw spaces and of the era's young people without romanticizing them.

> *The images were extraordinary, magical, and gritty, and we looked at them together for hours.*

Mike knew his time in the basement was limited. The residents of C-Squat had made a hard decision to rent the storefront space in order to earn rent and keep their monthly payments affordable once they finally became a co-op. Giving up the storefront meant losing what had been C-Squat's living room—and evicting Bald Mike from the basement below.

The decision came after much debate about what to do with the space. If they rented it at market rates, which were high on bustling and heavily gentrified Avenue C, they could cut their payments significantly. Residents had joked uncomfortably about what it would look like to have a Starbucks in the storefront of C-Squat. Some wanted an art gallery; others lobbied for a needle exchange. They finally decided to go with a nonprofit tenant who fit with their shared values and to charge them below-market rent. The Museum of Reclaimed Urban Space (MoRUS) was just getting going and seemed like a perfect fit. Founded by a former squatter from a building a few blocks south on Avenue C, the museum would feature squat history, among other exhibits. At C-Squat, the museum could build out the space to suit its needs, and it planned to preserve one of the room's graffiti walls.

While waiting to be evicted, another basement dweller passed the time writing an *Onion*-style satirical newspaper article with the headline: “Last Squatters Kicked Out of C-Squat to Make Way for Squatting Museum.” The squat was in an ironic dilemma.

Mike was rushing to scan his negatives—a laborious process that could conceivably take months—before he was kicked out. He feared that his belongings might be scattered to the winds and that he might die when he was evicted. He wanted my help. We talked about archives, file management systems, digital preservation, and enlisting an intern. He even considered inviting me to interview him, so his stories could be included alongside those of other C-Squat residents whose oral histories I was recording.

While we were talking, soapy water started pouring down the front wall of the building; soon after, volunteers from the new museum knocked on the door. They had been washing the floors and came down to check and see if the water was draining into the basement, which it was. The volunteers had never been in his room before and were pretty excited when they saw Mike’s pictures. But these images were one of his few valuable possessions, and he was not keen to share them, especially with the museum to which he was losing his home. Once they had confirmed where their soapy water was disappearing to (and caught a glimpse of the pictures), the volunteers left me and Mike alone. All of their subsequent attempts to get him to share his images failed.

Before the legalization process began, C-Squat residents had considered themselves to be like a family. They had not chosen each other, but they stuck together through thick and thin. Many were runaways and/or were formerly homeless, and they turned to each other for food, friendship, and shelter. Their tasks required teamwork, from rebuilding the stairwell to controlling access to the building.

> *The usual notion of American kinship suggests that families are built through blood and marriage. But sustained eating, working, and living together can also*

> *produce kinship ties.*

Many longtime C-Squat residents, and residents of other buildings, told me that the squats were like families. And all squatters called their collectives “the house.”

“House societies,” a concept first described by the famous anthropologist Claude Lévi-Strauss, have been found everywhere from medieval Europe to the Pacific Northwest, specifically with the Kwakwaka’wakw. In house societies, people are tied together by their connection to shared property—usually including an actual large house—and communal history, often including a lineage of ancestors. In order to survive as a group, they must protect the property and the history that defines them. As C-Squat’s legal status shifted, this is what the squatters, a house society of sorts, were struggling to do.

“You wouldn’t necessarily kick your brother out of the house because he wasn’t paying you rent,” says Erin Williams, who came of age in the building. “[But] at a certain point, you have a bank loan to pay, and if you don’t pay it, then the bank doesn’t fucking care that these are your friends, they just want their money. … Too bad, so sad, you’ve lost the building. … I don’t want to lose my home.”

When MoRUS finally claimed the basement space in 2012, Mike temporarily moved into a corner of the balcony, and then, just before the museum opened, he disappeared, taking all of his photographs with him. He had never sat for an oral history with me. No one I’ve talked to has heard from him. No one seems to know where he went or what happened to his records.

By 2015, C-Squat finally assembled a collection of rent-paying members and passed the final hurdle to become a co-op. But they did it without Bald Mike and without many of the people captured in Mike’s photos who had opened the building. Their tangible property—the house that sheltered them—was intact. But some of the intangible property that bound them together—their history—was gone.

> *The building will probably survive as a low-income co-op for decades to come. What is less clear is whether it will survive as C-Squat: a "house" and family.*

This essay won the 2016 SAPIENS-Allegra Margaret Mead writing competition.

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Featured image (cropped) by Konstantin Sergeyev. Follow Konstantin on Twitter (@konstphoto) and Instagram.

An Option with no Choice? The Role of Preventive Technologies in (Dis-)Locating a Malaria Epidemic

René Umlauf
February, 2017

In August 2016, during a science-meets-policy summit in Kampala's famous Serena Hotel, a presentation on the (in-)effectiveness of so-called long-lasting insecticide-treated nets against malaria sparked a heated debate. The presentation was given by an infectious disease specialist from Makerere University and provided evidence that six months after the distribution of free-of-charge bed nets, only 50% of the studied households were actually using this preventive technology. To calm the discussion down, one of Uganda's leading malariologists offered the following statement:

"Don't go away with the impression that the nets are useless. Instead, we need to find out what caused their modest effectiveness. You know it is not like the spraying [indoor residual spraying], where it doesn't matter how one behaves … this [the chemical] is just there! But still, we have to find out what makes the nets disappear after only 6 months …"

In the course of the meeting, other participants made their concerns about the study results even more explicit by indicating that donors and policy makers would not be amused to hear about them. One of the main reasons for their worries was that the Global Fund and other donors had just approved the funding of another 25 million bed nets for a second universal coverage campaign. However, a more implicit unease might have been caused by the fact that the study had been carried out in some of the country's northern districts, which were and are directly affected by an unprecedented malaria epidemic. Since May 2015, the number of people seeking treatment for malaria has remained steadily and exceptionally high,[1] leading to severe stock-outs of antimalarial medications, diagnostic tests and blood reserves in most public health facilities.[2] Apart from mass drug administration and the deployment of some 300 additional health workers, mainly in remote facilities, the core focus of the government's emergency interventions was on behavioral change campaigns (BCC), which were expected to help address the problem of low or inappropriate utilization of bed nets (MoH/NMCP 2015b).

The above-cited statement of the malariologist at the summit meeting directs our attention to some fundamental differences between indoor residual spraying and the distribution of insecticide-treated bed nets, two of the most prominent and strongly financed preventive technologies in current malaria control programs, and used in almost all endemic countries. While indoor spraying is implemented in a top-down manner, turning people into docile recipients of a Global Health intervention, bed nets re-configure individuals into responsibilized users. What the above statement is silent about, however, is whether and how the deployment of one technology (bed nets) can substitute for another (indoor spraying)?

> *Given the different 'nature' of the technologies, my argument is that the grounds on which indoor spraying and bed nets could be connected to one another are also changing and are strongly affected by the actual use of both technologies.*

What I term *ecological grounds* refer to the highly dynamic relationships between mosquitoes, parasites and humans, which not only cause infections but also provide for people's (partial) immunity against malaria.[3] I treat immunity here as an effect of what it means to live and work in malaria endemic settings, where constant exposure to infectious mosquito bites has long been the sole mode of protection.

In this post, I critically explore the relationship between the two technologies as one of a problem of connectability. Which conflicting demands, expectations and burdens are engendered both by locating the prevention/infection of malaria preeminently inside households and through the use of different technologies? I argue that the ecological grounds on which people are able to receive and use these technologies are also shifting and changing in unaccounted ways. I will show that whether and how the two technologies can actually be connected as part of a comprehensive malaria control scheme does not depend on people's 'behavior' alone. Instead, I argue that it is a question of how to account for the less visible disconnections that take place simultaneously. This is because the aim of disconnecting humans and mosquitoes both rests on, as well as enacts, another less visible disconnection between humans and parasites. The case study is mainly situated in the northern districts of Uganda, where I conducted research as part of a recent seven-week fieldtrip.

Malaria and its Prevention in (Northern) Uganda

Malaria constitutes a major public health concern in Uganda, with some of the northern districts displaying the highest transmission rates in Africa (MoH/DIFD 2013). Given its high prevalence rates of malaria, Uganda became one of the major beneficiaries of Global Health programs on the continent, receiving most of its funding from the *Global Fund to Fight AIDS, Tuberculosis & Malaria* and the *President's Malaria Initiative* (PMI). While the Global Fund in general mainly finances bed nets, diagnostic tools and antimalarial drugs, the largest share of the annual budget for USAID’s PMI is allocated to indoor spraying (approximately US$20 million, see USAID/PMI 2008-2015).

Beginning in 2008 with some pilot districts, the recorded impact, together with the available financial resources, led to a scaling up of indoor spraying to about 10 districts in Northern Uganda (USAID/PMI 2009). It is known from entomological experiments that mosquitoes rest on walls before or after blood meals. Coating the walls or ceilings of houses with a chemical pesticide therefore forms the central element of indoor spraying. Mosquitoes and other insects that come into contact with or close to these surfaces are either killed or repelled. According to the revised guidelines of the WHO (WHO 2007), indoor spraying involves the sprayer conducting himself in an almost Tayloristic manner, applying the insecticide to the interior walls of a house/hut while practicing meticulous bodily control and a sound choreography of the pump and nozzle.[4] To get an impression of the techniques involved, I quote from an official WHO manual:

“Apply spray in vertical swathes 75 cm wide, with an overlap of 5 cm. Spray from roof to floor, using a downward motion, to complete one swathe. Step sideways and spray upwards from floor to roof. (…) Time your spray speed to cover one meter every 2.2 seconds, i.e. 4.5 seconds for a 2 m high wall. Timing may be aided by mentally counting ‘one thousand and one – one thousand and two – one thousand and three’ (…) Adjust the mental counting procedure according to the local language (WHO 2007).”

More important for the case presented here is that prior to the spraying, the dwellings must be cleared completely of furniture, food and livestock.

> *The massive mobilization and coordination of people, equipment, furniture and livestock often results in tense encounters between spraying teams and communities.*

In some districts, it was frequently reported that people were threatened or harassed if they refused to get their homes sprayed (ABT/PMI 2011). A central condition for sustaining the efficacy of indoor spraying is that at least 80% of the habitations of a specified terrain need to be sprayed. Thus in cases where this is not achieved, the hired companies will face pressure from or even the dissolution of contracts with USAID. For all involved parties, it is clear that indoor spraying in its top-down manner constitutes a harsh intervention. Carried out at least twice annually or every six months, indoor spraying invokes the image of an intrusive bio-political tool of archaic provenance. However, on the representational (political) level it can easily be translated into ‘protected populations’ (PMI/USAID 2014). The logic behind ‘protected populations’ that are ‘shielded indoors’ rests on a notion of a holistic intervention with almost hermetical qualities, disconnecting both humans from mosquitoes, as well as environments from the toxicities of chemicals.

Given the complex relationship between the various environments and different species involved, it has been suggested that malaria is best conceived of as a disease or something that circulates between humans, mosquitoes and parasites (Turnbull 1989, Kelly & Beisel 2011). One effect of this complex interspecies interaction is that people develop some degree of ‘naturally’ acquired immunity (Langhorne et al. 2008). A crucial driver of this immunity is the *yearlong* and *constant* exposure of people to infectious mosquito bites (estimation of at least five infective bites per person per year, Doolan et al. 2009). While immunity does bear some relationship to non-adherence and the risk of drug resistance (Umlauf 2015) – i.e. because weak symptoms in adults tend to disappear after taking half a dosage of antimalarial medications, although no full clearance of parasites has occurred – more importantly, it is also assumed that immunity has provided the foundations for populations’ survival/co-existence with mosquitoes and malarial parasites for many centuries, since long before colonialism.

> *My emphasis on the role that immunity might have played in human survival in endemic regions should not, however, downplay the precariousness, suffering and risks inscribed in acquiring malaria.*

This is particularly the case for children under five, who are not only the most vulnerable but need to be steered trough life-threatening episodes of the disease.

Locating the Epidemic

Without having any reliable scientific evidence (to date), the current national crisis narrative in Uganda pinpoints the onset of the epidemic outbreak of malaria in the ten northern districts to more or less six months after the last spraying episode was carried out in October 2014. No further sprayings had been planned thereafter. The anecdotal evidence I was able to collect from USAID as well as from Ministry of Health officials legitimated this termination of indoor spraying, both in relation to the significant decline in prevalence rates as well as the roll-out of the universal bed net campaign. Between August 2013 and October 2014, over 22 million bed nets were distributed throughout the entire country (GoU 2014). On the basis of the low prevalence rates for malaria cited in health statistics, it was concluded that bed nets could now substitute for the costly spraying as a more cost-effective intervention that would ultimately help to sustain the public health gains (USAID/PMI 2015).

> *At that very moment, nobody was aware or wanted to acknowledge that this assessment was based on a gross underestimation of the grounds on which these 'gains' had been achieved through people's immunity.*[5]

Before I turn to the mutations and transformations in the role of bed nets following the suggested disconnection of humans and parasites, I want to briefly outline the relationship between preventive technologies and mosquitoes. I suggest that there is an often little considered side effect of this relationship that is related to the adaptive capacities of *Anopheles gambiae*, the most prevalent vector of malaria in Northern Uganda (personal conversation with entomologist in Gulu). Locating and concentrating almost all efforts in domestic spaces exercised considerable pressure on the mosquitoes' behavior, as well as on their biology

(Russel et al. 2011). While it is likely that the number of mosquitoes are reduced on treated interior walls, it has also been observed that this pressure triggers resistance to the applied pesticides. In addition to acquiring resistance, mosquitoes also adapt their biting behavior and change both their preferred time and place of feeding, resulting in new and unexpected configurations of where and when infections take place (Beisel 2015).

Bed Nets: An Option with no Choice…

Given the preeminently private nature of the everyday use of bed nets, only a few (ethnographic) studies have so far been carried out on the issue (Winch 1999, Panter-Brick et al. 2006). While bed nets are commonly claimed to be a simple and highly effective solution within Global Health circuits, people more often than not tend to treat them as an option but not a necessity. A popular and often raised concern against more frequent use is the discomfort people experience when sleeping under a net. In such cases, bed nets are perceived to further reduce air-circulation in already humid and sticky places (Wanzira et al. 2014). On a more technical or practical level, the fragile materiality of bed nets regularly renders them a rather inappropriate technology. It seems that the script of the nets anticipates more ‘modern’ living conditions, where there is a stronger division between sleeping and living areas than is realistic in many African settings. Many rural households are not divided along these lines and lack a designated sleeping room. Consequently, mattresses and other sleeping equipment need to be (re)moved on a daily basis to transform the bedroom into a daytime living space. The embroiling of bed nets into these activities adds another layer of laborious tasks and also increases the risk of tears, thus rendering the technology nearly ineffective. In addition, mosquitoes can develop resistance to the bed net insecticide (N’Guessan et al. 2007). While this latter issue has not actually been reported for Northern Uganda, it was the relative lack of mosquitoes – and the reduction of the nuisance – that made people perceive the nets as an impractical and unnecessary option.[6]

> *As was indicated in the quote cited at the beginning of this post, the difference between indoor spraying and bed nets is that the effectiveness of the latter depends on people's behavior and living conditions.*

Bed nets shift responsibility, from a person being a passive recipient to becoming a subject whose behavior has to be changed and who cares about the use and utility of the technology. In light of the described potential interference with people's immunity through the continuous use of indoor spraying, however, I argue that the epidemic crisis reveals a more fundamental transformation, whereby an 'impractical' technology is silently turned into the only viable option to prevent malaria. The main problem in this regard is that most people are unaware of this transformation, particularly because they are unaware of their disconnection from their own immunity. Although at the height of the epidemic people were constantly complaining to nurses that *this* malaria was more severe or of a different origin than former episodes, most of them were not aware of the connection between indoor spraying and their reduction in acquired immunity. When I asked the District Health Officer of Gulu District if it would have been better to make the conflicting relationship between indoor spraying and people's immunity part of risk communication, he laughed nervously and explained:

"You see, that would be even more complicated. The situation is similar to HIV; we don't tell the people that it is actually pretty hard to contract the virus… instead we tell them a single unprotected contact is enough…"

The subtext to the statement is that publicly announcing a connection between indoor spraying and people's reduced immunity (e.g. as part of a behavior change campaign for bed nets) would potentially increase the reservations that people already had to getting their homes sprayed twice a year. In turn, refraining from including this information in behavior change campaigns excludes a vital point for communicating the utilization of bed nets as a necessity with existential implications.

> *It is clear that the changing ecological grounds on which the transformation of*

> *bed nets is taking shape – from an impractical option to an option without choice – are not being openly communicated, and given the accompanying complexities most likely never will be.*

The mentioned impracticalities of bed net utilization, together with the non-communicated side effects of indoor spraying, contribute to a dislocation of the origins of the malaria epidemic. The epidemic is now treated as a problem of behavior change rather than a problem of changing ecological grounds.

Disconnecting humans from mosquitoes within households through the use of indoor spraying is likely to have affected another vital connection between humans and parasites. The current focus on 'behavior' and 'behavior change' instantiates a prominent framing of the (side) effects that Global Health technologies produce for and within the intervention contexts. In the presented case, behavior change refers to the expectations that public health experts have of how people should determine or negotiate the utility of bed nets in light of changes in both mosquitoes' behavior as well as in immunity levels. However, as I have shown, behavior can neither account for the demonstrated impracticalities nor for the fact that infections are occurring outside of bed nets and posing an increased risk of suffering more severe and potentially life threatening episodes of malaria. We could equally say that the changes in the relationship between mosquitoes, parasites and humans have rendered bed nets an even more impractical option, with no other choice for many people than to face new precarious levels of exposure in order to acquire fresh immunity.

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[1] The number of diagnosed malaria cases (lab confirmed and clinical) per month rapidly doubled in the quarter from April to June 2015, from the lowest (829,548 cases) recorded in over two years to the highest (1,629,237) since July 2013 (MoH/NMCP 2015a). While the numbers represent cases throughout the entire country (111 districts), the rise in numbers took place predominantly in the 10 epidemic districts. Between May and September 2015, Gulu district, for instance, registered over 140,000 cases in their public health facilities, indicating a tenfold increase compared to the years before (see also http://www.newvision.co.ug/new_vision/news/1409038/gulu-start-mass-anti-malaria-treatment).

[2] One of the crisis meeting reports put together by a national task force team

stated: “It is likely that the poor district data is masking (under-estimating) the magnitude of the epidemic in the affected districts. From the field observations and interviews, it can be concluded that the national response is too little and too late to cope with the magnitude of the current epidemic which is affecting large segments of the population in such a short time” (WHO/NMCP 2015).

[3] For the use and understanding of the conceptual underpinnings of ecology in this paper, see Isabelle Stengers ‘Introductory Notes on an Ecology of Practices’ (Stengers 2005).

[4] In older versions, ‘indoor’ also included so-called ‘ingress surfaces’, i.e. those surfaces on the exterior of dwellings that the mosquito might come into contact with when gaining access to the interior (DeZuleta et al. 1961). However, increased environmental concerns over pesticides migrating to the outside led to the adaptation of the new version.

[5] Ceasing indoor spraying without any sustainable ‘exit strategy’ in place also hints to a degree of collective oblivion in Global Health interventions with regard to its own history. What has been called the ‘Garki Project’ was one of the largest and best documented epidemiological experiments on the African continent regarding the use of indoor residual spraying, and provides (historical) evidence for how long-term spraying (between 1969-75) affects parasitemia levels and thus people’s immunity (Molinaux & Gramiccia 1980).

[6] See also http://www.mghcgh.org/stories-from-the-field/studying-the-barriers-to-antimalarial-bednet-use-in-uganda/.

Locating Care within the Nascent Infrastructure: Renal Dialysis in Thailand

Bo Kyeong Seo

February, 2017

When new epidemics hit us, calls for infrastructural development are renewed. More investment in hospital facilities, medical staff and the development of effective protocols for disease control is clearly advisable as seen with the recent end of the Ebola outbreak in West Africa. On the other side of the globe, South Korea’s sudden MERS (Middle East Respiratory Syndrome) epidemic in 2015 provides a different picture. What terrified people in South Korea during the seven-month long outbreak was not only the rapid spread of an unfamiliar virus but also the unexpected inability of one of the most high-tech hospitals in Seoul to isolate potentially infected individuals. The country's most lavish medical establishment, Samsung Medical Center, had spent 10 billion won ($8.9 million) for the renovation of its mega-size emergency room just two years before the MERS outbreak (The Wall Street Journal, 2015/06/18), but it was not prepared to prevent intra-hospital transmission (Ki 2015). The South Korean experience presents an alarming scenario, one in which technical advancement does not guarantee efficient control and prevention. Strengthening infrastructural capacities continues to be the dominant response to various health risks, yet such attempt often underestimates the very important fact that health infrastructures are not the stable material base on which biomedical superstructures rest.

> *Health infrastructures, rather, are dynamic but fragile networks requiring efficacious connections between human and material resources.*

The proliferation of anthropological explorations on various forms of sociomaterial infrastructures, such as electricity, financial mechanisms, power plants, water delivery, roads and media, has vigorously shown the relational and ontological complexity of these established networks (Anand 2011; De Boeck 2011; Larkin 2008;Von Schnitzler 2013). Infrastructure has "effects and affects far beyond their technical functioning" (Fortun and Fortun 2015: 365) and operates "on multiple levels concurrently" (Larkin 2013: 335). Several hospital ethnographies also directly and indirectly affirm these insights, as they unravel how laboratories (Street 2014a), oncology wards (Livingston 2012) and diagnostic procedures (Mol 2002) draw on multiple modes of knowledge and operate through the "relationships between people, stuff, and space" (Street 2014b).

In this short essay, I propose approaching infrastructure from the standpoint of care in order to discern how an assemblage of human bodies and things is made through everyday practice. Our basic experience of health care intuitively suggests a web of complex relations that sustains and intervenes in our bodies. However, an issue less explored is what makes such infrastructural connections reliable and durable. If infrastructures are indeed fragile, unruly and unpredictable assemblages of people and things (Bennett, 2010), what makes such association and alignment possible?

> *Expanding the notion of care from interpersonal morality to an integrating force might enable better understanding of how to fix infrastructural relations.*

In the following, I trace the recent development of dialysis infrastructure in Thailand and explore various attempts to make this new system work for poor patients. Dialysis is by no means a novel technology, but emplacing it as a part of universal health care provision requires a new set of infrastructural connections, an entwinement of political rationality, administrative techniques, material distributions and human resources. By tracing flows and congestions in this nascent network, I focus on the work of care that makes this entanglement happen. In order to replace one's failing kidney function by an external filtering system, treatment protocols, membranes, catheters, dialysis fluids, and the insurance schemes have to be interlinked and aligned. Then, what is care in this messy network?

Conjuring Dialysis Infrastructure: Peritoneal Dialysis (PD) First Policy in Thailand

Thailand is one of the few developing countries to have a relatively well developed public health care infrastructure, which ensures universal health coverage for all citizens, besides a thriving private health market for global medical tourists. Renal replacement therapy (RRT) for end-stage renal disease is a key policy which demonstrates the comprehensiveness of the Thai universal health coverage scheme, yet it took several years to be incorporated into the insurance package.

While antiretroviral treatment for HIV/AIDS patients was introduced in 2004, chronic renal failure patients had to wait four more years to receive free RRT. Unlike HIV/AIDS, kidney diseases have never reached the global or national health agenda, as they are non-communicable, chronic and degenerative. Continuous RRT is life-preserving yet is resource intensive and expensive.

To ensure universal access to RRT, in 2008 the Thai government introduced peritoneal dialysis (PD) as a primary treatment option. While there are two types of dialysis treatment—PD and hemodialysis—used to redress the ongoing effects of kidney failure, the government choice for the adoption of PD first policy was made on the grounds of infrastructural reason. Demand for RRT has rapidly increased in Thailand, yet most of the available hemodialysis machines and trained medical staff were concentrated in urban areas. Without a large amount of investment in rural health care facilities, it was impossible to make hospital-based hemodialysis widely available. For many nephrologists and kidney patients, the PD first policy was debatable because PD, although its long-term cost would not be significantly cheaper than hemodialysis, is more likely to create a higher risk of complication and failure (Pantipa Sakthong and Vijj Kasemsup 2011; Sripen Tantivess et al. 2013; Viroj Tangcharoensathien et al. 2013). Yet, the PD first policy was eventually chosen because it was deemed an easier way for poor patients to obtain dialysis. PD allows patients to conduct self-care in their homes thereby saving on travel costs.

In designing and implementing the PD first policy in Thailand, the guiding principle for the Ministry of Public Health (MOPH) and the National Health Security Office (NHSO) was the cost-effectiveness of the program. Here, two points are crucial to understand this policy agenda. First, the primary aim of universal health coverage is to prevent catastrophic health expenditures among poorer households. In this principle, the accessibility of treatment needs to be more emphasized than the long-term survival of patients. Second, there is an expectation that the pre-existing health infrastructure can facilitate and incorporate this new policy. The MOPH and NHSO encouraged district hospitals to install a PD clinic with the consideration that district hospitals would utilize “comprehensive primary care networks at the subdistrict and community levels” (Sripen Tantivess et al. 2013). District hospitals are expected to create “treatment partnerships with private facilities” (ibid) to deal with patients who are not suitable to receive PD. In an ideal design, there would be a working and well-connected network between district dialysis clinics, upper-level hospitals, private facilities, subdistrict health workers, village health volunteers, and individual patients and their family members. This network is designed to cover patients with various needs, to provide information and education, and to make home care possible.

Missing Link

Ruen, a 38-year-old single Thai man and an end-stage renal failure patient, was desperately waiting for his turn to get dialysis. He was waiting for an appointment with a nephrologist in the provincial hospital to undergo a simple surgery to insert a Tenckhoff catheter in his abdomen. This soft rubber tube is essential to start PD. Through this tube, a cleansing liquid flows into the abdominal cavity, where it is allowed to circulate for several hours collecting waste products from the blood, and is drained off. Ruen was one of the frequent flyers to Ban Phaet Hospital where I conducted dissertation research on universal health coverage between 2010 and 2012, and we spent many hours together during his hospitalization.

Nurse Mim was quite sure that Ruen was eligible to start PD according to the national protocol, but was unable to tell him an exact date. Nurse Mim was the only dialysis nurse in Ban Phaet Hospital. Although the PD first policy was launched in 2008, in Chiang Mai province only a few district hospitals had opened the dialysis clinic, and Ban Phaet Hospital was one pioneering place. Of the 12 patients who Nurse Mim had been treating, Ruen spent the longest time in the ward. Nurse Mim explained to me: “I can manage his case here, if he received catheter insertion. Then, I can teach him how to do dialysis at home and how to take care of himself. But before that, there is nothing I can do for him.”

Under the current PD first policy, patients who seek hemodialysis as first line treatment had to shoulder the costs burden themselves, and Ruen became trapped within this regulation. Without catheter insertion, Ruen could not start his PD. During this prolonged waiting time, his condition worsened, and hemodialysis became the only viable option for him. Ruen received 14 sessions of hemodialysis in the provincial hospital making out-of-pocket payments and reached the point that his family could no longer help him. He had to return to Ban Phaet Hospital where again he was made to wait. Nurse Mim arranged several referrals to the provincial hospital for Ruen, but his case was one of several in a long waiting list.

As it became impossible to predict when Ruen’s turn would come, Nurse Mim found another chance to refer Ruen when she met a nephrologist in a university hospital and learned that he might be able to provide surgery for PD therapy. As a professor in the medical school, he seemed to have more autonomy to choose patients. This time, Nurse Mim contacted the head nurse in the kidney clinic in the university and arranged the referral. With a detailed explanation of the guidelines for end-stage kidney patients, Nurse Mim remarked: “Ruen might get free hemodialysis. If someone is scheduled to receive surgery for peritoneal dialysis, they can have free dialysis for ninety days before the surgery.”

> *Through Nurse Mim’s meticulous study of rules and investigation of local resources, it seemed that Ruen now had a glimpse of hope.*

On the morning of the referral day, Ruen was extremely anxious. He had stopped dialysis for several weeks and his shortness of breath had become much more severe. After we were dropped at the front gate of the university hospital, Ruen’s aunt asked a nurse for a portable oxygen cylinder, and the nurse then sent Ruen to the emergency room. Nurse Mim had told us to go to the kidney clinic directly, yet Ruen was suddenly stuck in the crowded emergency room (ER). In the ER, a group of doctors, medical students and nurses gathered around Ruen and checked his vital signs and started an abdominal ultrasound. After an hour and a half in the ER, a doctor said that Ruen could not go to the kidney clinic that day. The reason provided by this doctor was that Ruen's condition was too weak to start PD, and it was recommended that he should go to the private clinic first for hemodialysis instead. Ruen's aunt gently told the ER nurse that she had no money left for hemodialysis. The ER nurse replied in a sympathetic tone: "The patient should have no other symptoms except kidney failure. He needs to be healthy enough to wait a whole day in the clinic."

This was a deeply frustrating moment for all involved in Ruen's pursuit of life-saving care. The PD first policy had been of some use to Ruen but at this crucial point the system failed to provide the very treatment that he had desperately waited for. The district hospital nurse followed the treatment guideline, arranged several referrals for further care, sought collaboration with upper level hospitals and consulted with family members. Here, the basic limitation was that medical staff in the district hospital were incapable of providing dialysis treatment by themselves.

> *In its original design, the district hospital was supposed to work only as a node within the bigger dialysis network, yet without the basic link, the inserted catheter, the circuit of care could not be fully established.*

Suturing and Caring

Fortunately, this is not the end of the story. Nurse Mim continued to pursue Ruen's case, and the provincial hospital finally accepted the referral. To stabilize his condition, several hemodialysis sessions were offered free of charge. Finally, the catheter was inserted, so he could start PD. When Ruen returned to the district hospital ward for further observation and extra training for home dialysis, I was struck by how thin he was. With all excess water gone, Ruen had lost a significant amount of weight and appeared dangerously frail.

The whole system had been deeply troublesome for Ruen but finally it had delivered a tangible result when the catheter was inserted. Boxes of dialysis solutions manufactured from Baxter’s brand new factory in Bangkok were delivered to the ward straight away, and costs were eventually covered by universal health coverage. The inserted catheter finally allowed Nurse Mim to deliver appropriate care. She taught Ruen the basic procedure and skills for home care including sanitizing the devices, changing syringes, measuring the fluid and detecting problems. After all, it was essential that Ruen would be able to carry out PD at home.

The promise of free access to dialysis was eventually realized, but the journey to get there had been absolutely exhausting. Ruen’s experience signifies both the successes and failures of the universal dialysis policy. PD first policy was designed for patients who could not afford privatized hemodialysis treatment, and Ruen was part of the target group for this newly established program. Here, the problem was not the absence or breakdown of the treatment infrastructure. Instead, it was a matter of adjusting. In this already overburdened system, the medical staff had to constantly tussle with unpredictable and restrictive bureaucratic and institutional conditions of dialysis to make efficacious connections between the patient and the upper-level medical institutions. Without this basic suturing, life-sustaining care would not have been possible.

In Ruen’s irksome pursuit of treatment, care was dispensed at multiple levels. It is important to note that Ruen’s patience and endurance drove others to care for him and drew ethical responses (Seo 2016). Yet, Nurse Mim’s administering of care was not without obstacles. As a node within the larger dialysis infrastructure, the crucial role given to Nurse Mim was to probe fragile institutional networks. Here, the efficacy of dialysis infrastructure largely relies on human effort. As the regular filtering finally becomes possible through the connection between the catheter inside Ruen’s abdomen and the Y-shape transfusion syringe attached to dialysis solution and drainage bags, Nurse Mim’s presence may become less prominent. Yet, this whole set of technical connections is an accomplishment of care.

> *To initiate, repair and sustain this life-sustaining association, caregiving has to be infrastructural in a sense that it requires an assemblage of ethical, technological, institutional and bureaucratic practices.*

If we approach health infrastructure as a generative ingredient of caregiving, it also changes how we approach forms of care. Infrastructural relations are "lines not of flight, but of interaction" (Ingold 2011:63), and the ongoing task is how to suture and interweave various materialities and uncertainties. In this dynamic, the form of care is not bound to the division between the macro and the micro, the moral and technical, or between the medical and familial, but has to be open to all possible associations and convocations. Health infrastructure is both an object of inquiry and an ontological vantage point from which to explore the assembled nature of care.

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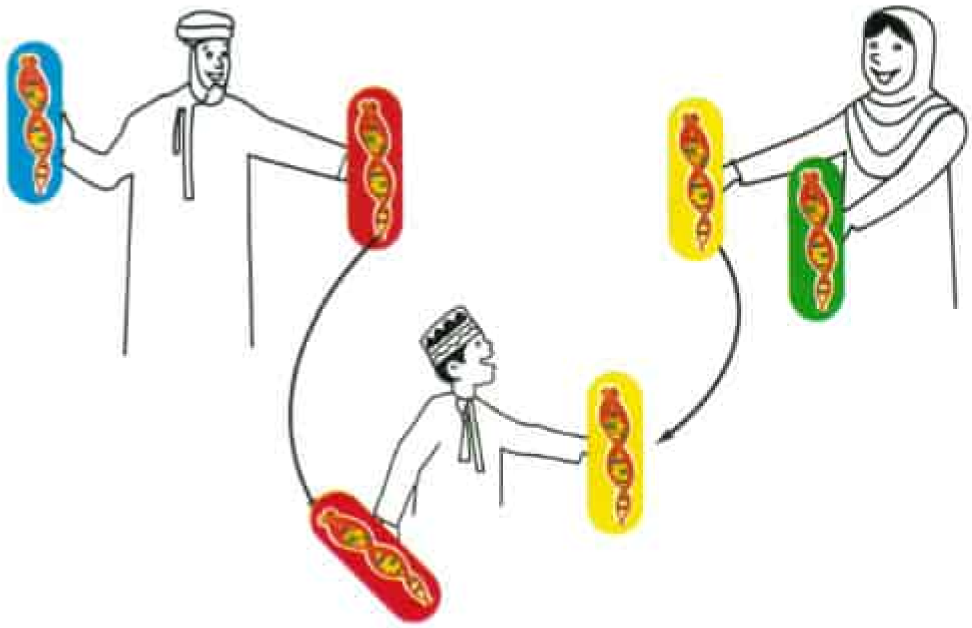
Arabian Medical Genetics: Of Rare Disorders and Decreasing Oil Rent

Claire Beaudevin
February, 2017



Medical genetics has long gone global. From WHO recommendations and travelling bioethics experts and DNA samples, to disease-related Facebook groups and national genome projects, its circulation routes and shades of glocalization are numerous. Among these manifold forms of connectivity, the following – deceptively anecdotal – example is telling: the US actress Angelina Jolie, as a carrier of a pathogenic mutation of the BRCA1 gene, decided to undergo risk-reducing surgery, publically announcing it in 2013 (Jolie 2013). The news swiftly spread throughout the world and doctors soon coined the phrase 'Angelina Jolie effect' to describe the sharp increase in BRCA screening requests that they observed (Evans et al. 2014).

> *This transnational effect of an individual medical choice has been observed in genetics clinics worldwide, showing once again how hyper-connectivity and*

> *globalization impact individual health decisions.*

However, the presence and actual manifestation of a genetic disease are also components of a 'local biology' (Lock and Nguyen 2010) shaped by numerous factors, including environment, marriage patterns, as well as health policies and infrastructures (e.g. about cancer in Botswana, see Livingston, 2012). The social meaning of genetic knowledge is framed by dimensions such as local understandings of consanguinity (Beaudevin 2015), 'colonial histories of migration, the embodied effects of dietary habits, or [even] the moral failings of near and distant ancestors', as shown by Sahra Gibbon (2013) in Brazil.

In this contribution, I trace the shifts in medical genetics as it circulates within, to and from the Arabian Peninsula, more specifically the Sultanate of Oman. In doing so, I draw on my previous fieldwork in Oman looking at obstetrical ultrasound and haemoglobinopathies, as well as on my ongoing anthropological research focused on medical genetics, genomics and public health in the Sultanate. I recently began to conduct ethnographic research at the country's two genetic medicine centres, observing everyday clinical work and interviewing patients, families and staff. I aim to explore a field that is attempting to thrive despite the high costs induced by training specialists and paying for the machines.

> *Documenting the manifestations of medical genetics in Oman therefore means exploring the manifold ways of caring, diagnosing, treating, coping with and understanding genetic disorders, while navigating a highly specialized scientific and medical field, and an ongoing process of resource limitation.*

I intend to use the opportunity of this publication to embark on an exploration of my current work with an approach I have not used so far: I will examine several recent examples from my fieldwork as part of a 'landscape of rarity', through the combined lenses of *exceptionality* [1] and *scarcity*. I aim to shed light on the importance of adaptation and tinkering practices in the everyday work of medical genetics. I also emphasize the ways in which genetics circulates to, in and from

Oman, and explore some of the connections and mobilities that appear when exceptionality or scarcity characterize tools, people, funds or knowledge in the field of medical genetics.

Of Oil and Health

In the Sultanate of Oman, genetic medicine has been part of the healthcare system for many years. It partly began with the diagnosis and community genetics management of haemoglobinopathies, especially sickle-cell anaemia and beta-thalassaemia. This pattern is shared with other countries (Modell and Kuliev 1998 and Modell, 2016, interview) and is unsurprising given both the relative affordability and technical ease of diagnosis conducted on haemoglobin itself (i.e. genetic analysis *per se* is not required) and the high incidence of haemoglobinopathies in the region. In recent years, under the umbrellas of the Ministry of Health and the Sultan Qaboos University Hospital, two public genetic medicine centres have been created in Muscat, the Omani capital, each providing an on-site combination of genetic expertise, diagnostic facilities and genetic counselling.

These two centres operate in the context of an authoritarian monarchy with a population of 3.5 million inhabitants, which has seen extensive economic and social changes since the current Sultan's accession to the throne in 1970. At that time, the country was deprived of almost all infrastructure. This scarcity applied to healthcare as well: a small American missionary hospital located in Muscat was the country's sole biomedical health facility (see picture 2).

The oil-financed modernization plan that was launched in the 1970s, which addressed administration, health, education, industry, etc., transformed Oman into a relatively wealthy country that enjoys a somewhat unusual degree of stability in the region.

In contemporary Oman, most public funds still originate in oil rent, and

> *therefore constitute shared benefits from oil extraction rather than the shared redistribution of taxes paid by citizens.*

Regarding the scientific scene, Oman’s remoteness from the main historical scientific centres of the former Arab and Ottoman empires led to a sparse landscape of local research institutions. This situation persists today, despite the creation of the Sultan Qaboos University in the capital in the 1980s. In this specific social and political context, and following the implementation of an efficient countrywide primary healthcare network, the government is currently facing new challenges, especially related to chronic and non-communicable disorders. Among them, genetic diseases are considered a major public health problem and are thus being targeted by new policies.

Reading Medical Genetics through Rarity

When writing this contribution, and still under the impression of my recent fieldwork, I struggled to make sense of the richness of the encounters I had. I eventually realized that while researching medical genetics and analysing my fieldwork data, again and again I have found myself roaming in the semantic and conceptual field of *rarity*. More specifically, I see manifestations of both of rarity’s dimensions, namely *exceptionality* and *scarcity*.

> *I met people affected by rare disorders due to uncommon genetic mutations. These disorders are diagnosed and investigated by the handful of trained specialists working in the country in the two dedicated centres.*

The options offered to patients or to couples at risk of having an affected child are *limited* by factors including the *rareness* of institutions designed to help individuals with disabilities, the growing but still *limited* number of local testing and prenatal diagnosis facilities (see about this: Bruwer et al. 2014, Bruwer, Al-

Foori, and Al-Kharousi 2014), and the *absence* of pre-implantation genetic diagnosis in the country.

On a macro scale, the backdrop to the current expansion of medical genetics in Oman also involves *limitations*: the aftermath of the 2008 global financial crisis, combined with the current drop in oil prices, has led the Omani government into *unfamiliar* territory. Deficits usually absorbed by state finances were in 2016 managed for the first time partly through massive public budget cuts and *shortages* (Valeri forthcoming, 2017, Reuters 2016, Oman News Agency 2015, 2016). This has begun to affect health-related expenditures in the public sector. This situation is not unique to Oman, however: cuts in resources allocated to health (related to financial crises and structural adjustments) are having major impacts on healthcare systems and individual health decision-making worldwide, the most recent European examples being Greece and Spain (Brand et al. 2013, Karanikolos et al. 2013, Kehr 2014, Pfeiffer and Chapman 2010).

When Rarity Begets Value and Suffering

Medical genetics in the Gulf encompasses a dialectic of *abundance and singularity*: the field targets both a myriad of rare disorders and more common inherited conditions, whose aggregate constitutes a massive clinical field. This ensemble is considered a relevant target for public health, which justified the creation of the two genetic medicine centres. Another dialectic deals with the impact of specific genetic profiles, and articulates *value and suffering*. Partly because of the widespread practice of consanguineous marriage (about 25-35 per cent of married couples in the region are first cousins, and Oman is no exception), the genetic profile of Gulf populations is quite specific.

> *This exceptionality shapes the composite ontology of the gene pool: on the one hand, it is a desirable object of scientific enquiry; on the other, it is a heavy burden for patients, families and healthcare systems that must face poorly*

> *investigated disorders or conditions with no available treatment (for anthropological work about consanguinity in Oman, see Beaudevin 2015; in Qatar, see Kilshaw, Al Raisi, and Alshaban 2015).*

Scientific desirability shapes multiple mobilities, primarily of researchers and DNA samples that travel between Oman and various international research institutions in Europe and North America. Many affected individuals are aware of this entanglement of scientific value and their own experience. One Omani man I met, whose family is affected by a severe, lethal and incurable neurological disorder, for instance, told me about a foreign clinician's 'excitement' upon realizing that about 20 members of his family showed symptoms (interview, Muscat, 2016). Nonetheless, this man has also made use of the intense connectivity characterizing such research: he was the one who originally looked up the clinician online on the basis of his research interests.

Scientific events where clinicians and scientists gather illuminate the dialectical pairs mentioned above: first, the presentations tackle manifold disorders that sometimes impact only a very small number of families; second, the papers deal both with the daily issues faced by affected individuals and with the pride of describing new syndromes and mapping new genes. A biennial gathering of genetics experts from the Arab world (with guest speakers from Europe and North America), the Pan-Arab Human Genetics Conference held in Dubai, offers an example of such an event.

During its 6th edition organized in January 2016, a keynote speaker candidly asserted that consanguinity is both 'an important problem and an opportunity to identify pathogenic variants' (Antonarakis 2016). Another speaker concluded in a more subtle way that 'investment in genomics in this part of the world [the Middle East] will be highly valuable' (McCarthy 2016). Slides and posters display the emblematic visual representations that encompass the ambiguous status of medical genetics research. The 'family pedigree', for instance, a biomedical species of family tree, is a scientific tool that helps materialize the singularity of an individual’s/family’s genetic profile. Picture 3 shows such a ‘research pedigree’, taken from a scientific poster presented in an earlier edition of the Pan-Arab Human Genetics Conference (Al-Mejni et al. 2007).

Circles represent female family members, squares represent males, hexagons show individuals of unknown gender; they are struck through if the individual is deceased and coloured when s/he is affected by the studied condition. Marriages are noted with horizontal lines, descent by vertical lines. The original caption of picture 4 read ‘Informative pedigrees showing the complexity of family structure’. This complexity matters because it is implicitly defined in contrast to ‘Western’ family patterns. It includes: number of children (up to nine here), successive first cousin marriages (double horizontal lines), and polygamy (a square linked by horizontal lines to two different circles, none of them struck through, i.e. all individuals are alive). Picture 5 below shows an example of the ‘clinical pedigree’ that is drawn in front of a patient by a clinician or a genetic counsellor, who asks numerous questions about the patient’s family history and structure in order to fill it out.

This example displays consanguineous marriage and polygamy and bears traces of the conversation between the patient and the medical genetics professional: corrections, ages, causes of death, clinical information about a child’s development, etc. This handwritten version bears more evidence of the family’s suffering than the research pedigree showed above. Just like DNA samples themselves, these peculiar pedigrees embody the value of the Omani gene pool for genetic research purposes: picture 5 displays four generations and shows families of four to six children, two consanguinity links and a probably polygamous great-grandfather, as well as several affected family members — including the one who came to the consultation, pointed at by an arrow.

When Exceptionality Leads to 'Infrastructural Disconnectivity' and Necessary Mobilities

In Oman as elsewhere, medical hierarchy impacts therapeutic itineraries. The novelty of the profession of genetic counselling in the country and the very small number of formally trained practitioners deprive this activity of a clear status in the medical hierarchy. Genetic counsellors are mostly locally trained as nurses or biologists before travelling abroad for specialization in countries where genetic counselling is an established activity. They study in places such as the UK, USA and South Africa, depending on their personal networks as well as Oman's historical connections. In their everyday practice of counselling, they are sometimes limited to the 'box' of their original education. For example, the various software used for managing patient information (picture 6 shows one such interface) allow data access and entry on the basis of professional status. Nurses may thus not be 'allowed' to request further tests — or rather, they may be technically prevented from doing so — just as biologists may not be granted access to add remarks in the 'medical' fields of a patient file, even if their genetics-related activities require them to do so. For all of the genetics counsellors, negotiating their new status in the healthcare system is directly related to fixing what one could call *infrastructural disconnectivity* between various parts of the system: the medical results they can access onscreen, the referrals they are allowed to arrange, and the field dedicated to their remarks in the patient file are all crucial matters for them to control, since they determine the smoothness of a patient's therapeutic itinerary.

There are also other kinds of infrastructural disconnectivities at play. One can almost count the number of trained clinical geneticists and genetic counsellors working in the country on two hands. This creates a strong centralization of expertise in the capital area, in the two centres already mentioned, which are considered tertiary healthcare facilities. In an attempt to spread expertise outside of the capital, an 18-month training program in genetic counselling was initiated in 2014 at the National Genetic Centre, and has been attended by nurses from different governorates. Nevertheless, the current state of centralization begets numerous necessary mobilities: most patients and families searching for a diagnosis or expecting test results have to travel from all over the Sultanate to attend the clinics in the capital. For those affected by disorders requiring follow-up, these travels become part of a routine (Beaudevin 2013a, b).

> *Travelling abroad for tests or treatment is also very common, in order to seek a second opinion or a treatment that is locally unavailable.*

In the latter case, these mobilities are partially institutionalized: there exists a regulatory framework that involves a ‘recommendation for treatment overseas’, which can be filed by a specialized doctor following the patient. For Omani nationals, such a referral can lead to the cost of travel and treatment being covered by public funds.

Of Financial Scarcity Management

The current development of the medical genetics field follows a path marked out by the WHO: the organization, through its dedicated programs (Hereditary Diseases until 1995, Human Genetics until 2016, and now Human Genomics and Public Health), has repeatedly advocated for community genetics interventions aimed at organizing testing and genetic counselling for common hereditary disorders: first in the world’s wealthiest countries in the 1980s, then in ‘developing’ countries in the 1990s (World Health Organization 1999). As diagnostic tools became more affordable, the WHO recommended in 2010 that preventing congenital disorders within primary healthcare would imply developing ‘pre-conception care, population screening, genetic counselling, and the availability of diagnostic services’ (World Health Organization 2010). Against this backdrop, and facing both epidemiological transition and notable rates of consanguinity, in the last decade Oman and other Gulf countries have started to implement relevant policies.

The context and possibility of such decisions, however, changed very recently. The current drop in oil prices had a strong impact on the economies of countries considered solidly wealthy — Saudi Arabia is archetypal of this; for Oman, see for instance Oman News Agency (2016). Economic uncertainty is admittedly not unknown in Oman and many Omanis have long been concerned about the future. Nonetheless, as mentioned above, it was only as recently as 2016 that they saw the first occurrence of official public funding cuts.

> *Readers may wonder how dropping oil prices are relevant to a medical anthropologist researching genetics.*

Aside from the general impact on healthcare systems, part of the answer actually lies in the encounter between shortage and newly-introduced biomedical technologies that involve heavy investments (for machines, as well as in training) and high functioning costs. Some interventions – chiefly the tests necessary for pre-implantation genetic diagnosis performed abroad – are, since the beginning of 2016, no longer government funded. This change in funding will probably not stop the flow of patients travelling for genetic testing purposes, but it will definitely increase inequalities in access, adding money to the list of requirements that determine a person’s ability to travel.

The combination of specific requests from clinicians and the economic situation creates necessities for trade-offs in medical genetics and genomics laboratories: about implementing a specific test onsite or rather requesting it from foreign companies; about selecting these companies; about the frequency at which one runs a machine (and thus uses consumables); etc. The intense connectivity of the global medical genetics milieu plays a major role in these arbitrations: the availability of reliable companies able to perform specific tests or the choice criteria used for buying a sequencing machine, for instance, are matters discussed over international networks of shared expertise.

Conclusion

Exploring medical genetics in Oman through rarity allows for an emphasis on the local biological, social and political specificities that shape both medical genetics as a research field as well as genomes *per se*. The Omani tribal system, part of what Fredrik Barth (1983) called the Omani 'social diversity system', is an organizing force in the Omani *rare* gene pool, since the maintenance of this system requires endogamy, and even consanguinity. Furthermore, this approach leaves space for an emphasis on the creativity of professionals and patients who must navigate a shifting field with flexibility. In addition, exceptionality and scarcity represent much more than the two sides of the rarity coin: they are closely entangled in the everyday impact of the small number of trained professionals in the country, as well as in the often 'guilty fascination' characterizing many foreign scientists' approach to Arabian DNA. Rarity, in all of its shades, triggers intense connections between researchers, between Omani patients and foreign clinicians, etc. It also fuels the transnational mobility of DNA, patients, experts and technologies.

Finally, this note is but preliminary and much remains to be explored in terms of medical genetics as it is practiced in Oman, especially in clinical activities. In fact, even if the discipline of bioethics is being spread as a global framework and has been described by numerous social scientists as 'unaware of its own socio-cultural context' (Rapp 2000, 44), its implementation in everyday medical practices is shaped by local moral worlds. The exploration of this, including the *fragmentary* regulatory frameworks prevalent in genetics and the resulting impact on clinical situations, is therefore crucial.

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[1] Throughout the text, I draw attention to particular analytical categories using italics.

Embryos on the Move: Transnational Networks of

Surrogacy

Anika König
February, 2017

Gestational surrogacy is a reproductive technology where embryos are produced ‘in-vitro’ in a laboratory and subsequently implanted into the uterus of a woman – the gestational surrogate or surrogate mother – who has agreed to carry the child to term and hand it over to the commissioning ‘intended parents’ after its birth. This is in contrast to so-called ‘traditional surrogacy’ which does not necessarily require the use of reproductive technologies because it uses the surrogate’s own egg cells that are fertilized through sexual intercourse or medically performed insemination.

While traditional surrogacy has a long history (examples can already be found in the Bible (Genesis 10 and 16), gestational surrogacy has only become possible with the development of in-vitro fertilization technology where egg cells are fertilized and incubated outside the body in a laboratory and the embryos subsequently implanted into a woman’s uterus. What makes commercial (that is, paid) gestational surrogacy so special and also subject to wide criticism is that the surrogate mother is neither related to the embryo, since the egg cell comes from the future social mother or a donor, nor intends to keep the baby but agrees to give it away in exchange for money.

On local and many national levels, surrogacy is a highly contested reproductive technology regarding moral regimes, political contexts and legal conditions. At the same time, it is also dependent on and takes place in transnational networks within which technologies, gametes, people, money, knowledge, and information circulate. Both local conditions and transnational networks of surrogacy influence and in some respects also generate one another. However, while connectivity between different locations and people is created through mobility and the travel of things, knowledge and persons – ideally resulting in the birth of a child – the very same process is also marked by friction and discrepancies: some countries’ legal restrictions are capitalized on by other countries’ support or acceptance of the surrogacy industry; the wealth of intended parents intersects with the poverty of the surrogate mothers in certain other countries (such as India); what is medically possible (especially in the field of preimplantation genetic diagnosis) may be antithetical to ethical concerns and public discourses in the intended parents’ home country, etc. The intersection of the local and global conditions of surrogacy and the connections and frictions that emerge in this context are the subject of this blog piece. But in contrast to many critics of surrogacy, I argue that a legal permission of surrogacy would contribute to the protection of surrogates and a better quality of medical and other services.

> *In my opinion, it is the ban of surrogacy that opens a space for unethical practices and the incapacitation of surrogates.*

Local Discourses and Legal Conditions in Germany and Switzerland

In both countries, the public is highly critical of surrogacy and the practice is regarded in primarily negative ways. Critics refer to the dangers and effects of the technologies involved, especially when it comes to the use of donor gametes and preimplantation genetic diagnosis (PGD) both of which are suspected to contribute to the creation of so-called ‘designer babies’ – babies that in every respect are artificially designed according to their parents’ wishes. Another camp of critics focuses on the exploitation of women, particularly surrogates and egg donors, who are understood as compelled to sell their bodies and reproductive capacities due to financial distress. There are also critics who see a surrogate pregnancy as something ‘unnatural’ and problematize the separation of the bond between the surrogate and the child after it has been handed over to the intended parents. In their opinion, people who suffer from infertility (or constellations of intended parents such as gay couples or single parents) should accept their fate and either adopt a child or remain childless. And finally, surrogacy is often presented as a form of ‘baby-selling’. It is argued that surrogacy poses a great threat to the idea that children are “precious yet priceless” (Berend 2015). There are many more points of criticism, but these four issues are at the center of public discourses and frequently overlap. Moreover, these criticisms have a strong moral connotation: Parallels are drawn with the Nazi era (euthanasia and the creation of a ‘superrace’), colonialism and (sex) slavery.

> *Surrogacy is perceived as a threat to traditional family values and institutions, and as immeasurably capitalistic.*

This moral regime is mirrored in the respective political approaches to surrogacy and the legal regulations that are derived from them. It is true that some individual politicians argue in favour of the practice. For example, Ulrike Flach from the Liberal Democratic Party in Germany has suggested that surrogacy should be legally permitted, albeit only in its unpaid, ‘altruistic’ form (Bubrowski 2013). However, the majority of politicians from all party backgrounds in both Germany and Switzerland strongly reject the practice. One example from Germany is Hubert Hüppe, a Member of Parliament from the conservative Christian Democratic Party whose work focuses on bioethics and disability. He argues that surrogacy is a form of human trafficking, criticizes the commodification of children, and maintains that due to the medical procedures that are often involved (e.g., Preimplantation Genetic Diagnosis, abortions in case of disability, etc.) it also discriminates against people with disabilities (Hüppe 2014). Interestingly, at the other end of the political spectrum, the Left Party equally condemns surrogacy. For example, the queer working group of the Left Party rejects surrogacy on the basis that it is against the Embryo Protection Act (Die Linke queer Hamburg 2012). All in all, there is a clear consensus among the majority of politicians in both countries not to abolish the current prohibition of surrogacy.

Consequently, both the moral regimes and political conditions in these two countries inform their laws on reproductive technologies which are amongst the most restrictive worldwide. They do not permit ova donation, the creation and subsequent implantation of an embryo into a woman who is genetically not related to the embryo[1] (i.e. who is not the person from whom the egg cell has been taken), or the initiation of a pregnancy in a woman who does not intend to keep the baby but carries it for others. Moreover, the brokering of surrogacy by agencies is equally prohibited. Medical professionals risk losing their licences if they perform these procedures and, like agencies, may be subjected to high monetary fines and possibly even imprisonment. Since many gestational surrogacies involve ova donations and all require in-vitro fertilization with the goal of implanting the embryo into another woman, and since advertising or using an agency to find a surrogate is a necessary step in the process of commissioning a surrogacy, the procedure is not performed in Germany and Switzerland. However, neither commissioning a surrogacy, nor acting as a gestational surrogate, are punishable. Many of my German informants used the word ‘schizophrenic’ when referring to the prohibition of surrogacy since the country suffers from very low birth rates and the current political approach to reproduction is generally pronatalist.

Transnational Reproductive Travel and Segregation on the Basis of Financial Resources

Both in Germany and Switzerland the legal restrictions regarding assisted reproductive technologies have led many people to travel abroad for reproductive treatment. In medical anthropology and neighbouring disciplines there has been some discussion about the terminology describing this process. While ‘reproductive tourism’ is a term that is still commonly used (e.g., Bergmann 2011, Deomampo 2013, Pennings 2004), it has been increasingly criticized for its negative connotations and insinuation of pleasure. Some researchers have suggested using ‘cross-border reproductive travel’, ‘reproductive travel’ or ‘cross-border reproductive care’ (e.g., Inhorn and Gürtin 2011, Shenfield et al. 2010, Whittaker and Speier 2010) instead. I have chosen to use the term ‘reproductive travel’ as it does not imply the enjoyment that is connoted by ‘tourism’.

> *However, in contrast to ‘cross-border reproductive care’, it emphasizes the mobility – the topic of this thematic week – that characterizes transnational surrogacy.*

Against the background of transnationally diverging legal and ethical-moral frameworks as well as greatly differing costs, certain geographic places tend to become the locations of certain medical specialties (Andrade Neves 2016; Kangas 2002). This can also be said about surrogacy. Countries such as Ukraine, India (although this is currently changing)[2], and some US-American states not only permit surrogacy but in some ways facilitate the performance of this practice, which has led to the emergence of an industry sector generating billions of dollars every year (Spar estimates the amount of money paid for surrogacy in the United States in 2004 at approximately US$ 27.400.000 (2006: 3), a number which, due to the expansion of the surrogacy industry in the last few years, is likely to be even higher today). In these specialized locations, agencies, clinics, and related businesses thrive and advertise widely to attract more prospective customers. Medical specialization, related services (such as agencies lawyers), and the geographic location of the surrogacy business sector thus merge at these 'reproductive hubs'.

However, traveling to these hubs is not open to everyone and financial resources further determine which destinations are affordable to whom (Roberts 2011). While a surrogacy in the United States is likely to cost around US$ 150.000, in countries such as India, Ukraine or Mexico it can be commissioned for a fraction of that amount (e.g., an aggressively advertising fertility clinic in Ukraine – BioTexCom – offers an 'Economy Package' for surrogacy for € 29.900). But these differences in pricing also mirror differences in many other aspects, ranging from the quality of medical services to the quality of agency services, the reasons why surrogates decide to carry a child for someone else, anonymity versus so-called open programmes, where surrogates and intended parents meet and get to know one another, and so on. All intended parents I spoke to in my project showed great interest in these issues, and especially the wellbeing of the surrogate. However, especially when financial constraints play a role, financial considerations may prevail at the expense of considerations concerning issues of quality and care.

But perhaps the most important factor for many intended parents is how easily they will be able to take the child home with them. This depends on the country's laws concerning the definition of parenthood and the acquisition of citizenship which determine how easily a child can receive a birth certificate, visa, and passport which are necessary for cross-border travel back to the intended parents' home country. While it is fairly easy to obtain the necessary documents for a child born through surrogacy in the United States, this is not always the case in India or Ukraine. One of the participants in my research had to remain in India for one and a half years due to the fact that the German consulate refused to provide him with the necessary documents for his child born through surrogacy in India. According to him, there is an entire community of foreign intended parents in India who face the same problem. While usually one of the parents returns home to keep earning money, the other looks after the child in India and tries to get hold of the appropriate documents for cross-border travel. In contrast to this situation, every person born on US territory automatically receives US citizenship (*jus soli*) and with a US passport can travel to Europe without a visa. The segregation of intended parents based on financial resources thus not only has effects on where they can commission a surrogacy, but it also influences how easily they can return home with their child.

Transnational Networks of Persons, Things, Knowledge, and Communication

These reproductive hubs are the sites where all the actors involved in a surrogacy come together: the intended parents who in the case of this research have travelled there from abroad, the surrogates, who carry their babies, the agencies and their personnel, many of whom have in the past either been intended parents or surrogates themselves. Moreover, many surrogacies involve egg and sperm donors and their gametes that, in cryopreserved form, may have travelled across the country or even across national borders. The whole process is usually regulated in a contract that is prepared and written out by lawyers. The medical procedures such as health check-ups, hormonal treatment, the surgical removal of ova, and the implantation of embryos into the surrogate's uterus are performed by doctors and supported by nurses. In addition, lab personnel and embryologists prepare sperm, perform in-vitro fertilization or intracytoplasmic sperm injection, breed embryos in incubators, and carry out preimplantation genetic diagnosis. Also, gametes and embryos are cryopreserved in cryobanks. Moreover, knowledge concentrates at and travels to and from these reproductive hubs, for example when new procedures with higher success rates are developed. Finally, fertility clinics make important investments in technological equipment, medical and otherwise (such as high-end air filter system for laboratories and operating theaters).

> *In addition to these networks of persons, things, and knowledge, the internet, too, is an integral element of surrogacy.*

Without the internet, surrogacy would not exist in its current form. Interestingly, for different surrogacy actors it serves quite different purposes. For agencies and clinics, it is first and foremost a medium through which they can advertise their services worldwide. For intended parents, especially at the beginning of the usually long process that finally leads them to decide to commission a surrogacy, it is mainly a place where they can find out about surrogacy – both from the official websites of agencies providing surrogacy services and in online discussion forums where information is exchanged between people who are in a similar situation.

As my research showed, these online discussion forums are the most important source of information for intended parents from countries that prohibit surrogacy. As they cannot seek advice in family planning clinics because even the reference to clinics providing egg donations and surrogacy may cause legal problems for German or Swiss doctors, intended parents are strongly dependent on the advice of others who have already undergone the procedure – both medically and legally (e.g., with regard to documents and citizenship). In these forums, which are usually closed to outsiders and have very strict membership rules in order to prevent journalists or possibly also officials from exploring who is involved and what is discussed, information is exchanged concerning good doctors, clinics, and agencies (some of which explicitly cater to German-speaking customers by employing German-speaking staff), which lawyers specialize in surrogacy contracts, which pharmacies from abroad send hormone injections and other medications necessary for preparing the retrieval of egg cells, etc. Many intended parents acquire almost all their information from such fora, and a number of long-term members, whose surrogacy dates several years back, volunteer not just information but also emotional support in a situation many intended parents experience as very straining.

Similarly, gamete donors and surrogates in many cases find out about the options of donating or becoming a surrogate on the internet (Almeling 2011), although this does not necessarily apply to women in countries like India where illiteracy is widespread. But those who use the internet access information on websites operated by agencies or sperm and egg banks, and in addition also often become members of online discussion forums and support groups (Berend 2016). In some places, such as Israel, where surrogacy is legal, some support groups cater to the needs of intended parents and surrogates together (Teman 2010). Finally, gamete donors and surrogates may also use the internet to introduce themselves. Many agencies and sperm and egg banks provide online catalogues of donors with photos, sometimes sound samples of their voice, and information about their private and professional background. These catalogues, however, are usually only accessible to registered users who receive the access data from their agency or sperm/egg bank.

When a surrogate is pregnant, most of the communication between intended parents, the surrogate, agency personnel, and sometimes doctors, also takes place on the internet. In contrast to surrogacies where the different actors live in geographical proximity to one another and can regularly meet in person (as Teman (2010) describes for the case of Israel), cross-border reproductive travel is characterized by geographical distance between the different actors. Intended parents and surrogates seem to often use forms of communication such as Skype or Facetime as a way to meet ‘face-to-face’ in addition to regular email contact. Research participants recounted that they were able to join important doctor’s appointments with their surrogate via Skype or Facetime.

Interestingly, although place can be overcome in a certain sense via the

> *internet, time continues to pose a problem in these transnational encounters.*

Research participants complained that they had to get up in the middle of the night in order to be able to skype with their surrogate or be present via Skype at one of her appointments, or that there were regular misunderstandings regarding the time difference so that a Skype conversation could not take place as planned, and so on.

The Transnational Embryo

As I have shown, the local conditions in Germany and Switzerland make it impossible for intended parents from these countries to commission a surrogacy at home. As a result, they go abroad in order to gain access to medical services they would not be able to access otherwise. Typically, they travel to what I have called ‘reproductive hubs’ of surrogacy – places where persons, technology, knowledge, communication, and money concentrate in order to create babies.

> *The embryo that comes into being in this way is transnational itself and embedded into global networks of reproduction.*

However, these global networks are double-faced – they have a strongly connecting quality, but they also emerge as a result of global inequalities and power differences. The strict ban on surrogacy in some countries seems to enforce rather than mitigate these global inequalities by outsourcing the practice into other (especially low-cost) countries where legal protection of neither surrogates nor intended parents is granted. I suggest that these inequalities and power differences are enforced rather than mitigated by strict bans of surrogacy. Legal regulations permitting surrogacy are likely to empower surrogates by giving them a legal basis and ways to enforce their rights, while intended parents would be able to find legitimate clinics and agencies.

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[1] However, embryo donation is not covered by the German Embryo Protection Act (*Embryonenschutzgesetz*) and thus not strictly prohibited.

[2] The Indian government is currently planning to enforce a complete ban of

surrogacy for foreigners.

Medical Technologies and Infrastructure: Exploring Im/Mobility and Dis/Connectivity in “Global Health”

Hansjörg Dilger
February, 2017

There are numerous approaches to defining “Global Health” (Brown, Cueto, and Fee 2006; Farmer et al. 2013; Fassin 2012; Janes and Corbett 2009), a phenomenon that Arthur Kleinman (2010: 1518) considered to be “more a bunch of problems than a discipline.” Nevertheless, a common thread in different conceptions of the field suggests that it is constituted by – and has emerged as a reaction to – an increasingly multi-layered connectivity of all parts of the world and the pervasive global and/or transnational mobility of people, pathogens, medicines, technologies, institutional arrangements, finances, ideologies, knowledge, and moralities (cf. Koplan et al. 2009). The varying connections and flows engendered by processes of globalization shape not only the health of entire populations and produce novel medical conditions that engender a sense of global urgency. They also mold the ways in which technologies, discourses, infrastructure, health conditions, people, and resources converge into specific medical “assemblages” (Collier and Ong 2008) or “medicoscapes” (Hörbst and Wolf 2014), which are configured on a local, global, or transnational scale.

Anthropologists and other social scientists have begun to expose how profoundly the im/mobilities and dis/connectivities constituting the landscape of Global Health are shaped by transnational power relations, as well as by the agendas and interests of particular actors (Brada 2011; Crane 2013; Kenworthy 2014; Okwaro and Geissler 2015), which often manifest in patterns of highly fragmented “networks of enclaves” (Geissler 2015: 14) of professional expertise, abundant financial resources, and well-functioning infrastructure (Sullivan 2011). Inspired by these works,

> *this thematic thread explores how various instances of Global Health are coming into being – not in the sense of a political, institutional, or disciplinary category, but rather as a highly inclusive reference for diverse processes of medical globalization in an increasingly interconnected world (Dilger and Hadolt 2015).*

In recent years, medical anthropologists have provided ample evidence that processes of medical globalization are shaped by the manifold mobilities of human and non-human actors. In doing so, they have pointed out that even though movement can be a “disruptive social experience,” it most notably constitutes the ground for dynamics of connectivity and multidirectional linkages in transnational settings that may be highly unexpected but nonetheless productive (Langwick, Dilger, and Kane 2012: 9). Taking this insight into account, we concur with de Bruijn and van Dijk (2012: 4), who understand connectivity as the “process of linking and making new connections,” which leads to the formation of “new social constellations” as well as the transformation of existing ones. It is therefore crucial to explore the nature of and preconditions for such connections and “*the way* people come to embrace” them (ibid., our emphasis), in order to better understand the quality and effects of the novel social formations they engender. In this thematic thread, we attend closely to the role of mobility and connectivity in bringing about specific instances of medical globalization by asking how certain mobilities, flows, or connections come into existence, but also how they are *blocked* and do *not* occur under specific social, cultural, politico-legal, and economic conditions, resulting in equally distinct medical assemblages.

> *That is to say, we assume that both the presence as well as the absence of certain mobilities and connectivities constitute productive forces in medical globalization and that they both decisively contribute to the fact that medical technological and infrastructural landscapes come into being in often highly fragmented, unequal, and partially elusive ways.*

This thematic thread was curated by the collaborative blog Medizinethnologie: Body, Health and Healing in an Interconnected World, which was established by the working group Medical Anthropology within the German Anthropological Association in 2014, and has since published pieces on a wide range of topics related to the field of medical globalization. Throughout the coming week, the authors will present different angles of how the dynamics of im/mobility and dis/connectivity shape configurations of medicine, health, technology, and infrastructure in their respective field sites, both with regard to local processes and their global and/or transnational entanglements.

The thematic week is opened by the contribution of Anika König, who explores how the technology of gestational surrogacy has given rise to transnational networks of reproductive travel that are channeled by, and simultaneously trigger changes in, national ethical and legal frameworks and the corresponding opening up and closing down of commercial opportunities and specific "reproductive hubs." Furthermore, these networks of reproductive mobility – which connect bodies, gametes, and financial resources across countries like Germany, Switzerland, India, the USA, and the Ukraine – are sustained by a growing landscape of online communication in which the desires and dependencies of both intended parents and surrogate mothers are exposed and negotiated.

Claire Beaudevin focuses on the way in which medical genetics has become an object of public health services in Oman. She shows that the growing attention of the state to hereditary disorders is linked not only to the recent availability of diagnostic technologies and the World Health Organization’s growing prioritization of the prevention of congenital diseases in primary healthcare, but also to the Sultanate’s ability to afford to care for the rare genetic conditions of its citizens due to its long-term (though currently regressing) revenues from oil rent. In this context, the establishment of two public genetic medicine centers over the last couple of years has given rise to a dense web of health experts, technological infrastructure, and patients who produce, appropriate, and circulate knowledge about rare genetic disorders and “Arabian DNA”, both locally and beyond the national borders of Oman.

In the third contribution, Bo Kyeong Seo explores the socio-material infrastructure of Renal Replacement Therapy in Thailand, a medical technology that, according to the country’s universal health coverage scheme, should be freely provided to all citizens in need. Drawing on the example of a particular patient’s struggle to receive peritoneal dialysis treatment in a district hospital in Chian Mai, Kyeong Seo demonstrates that the successful provision of care is not only contingent on the connectivity between patients and health institutions at several structural layers of the Thai health care system. It can also only be realized if productive connections are established between political rationalities, administrative techniques, material distributions, and human resources. Care itself becomes an act of effectively ‘suturing’ such heterogeneous elements together.

In the final contribution of the thematic thread, René Umlauf draws attention to the implications of the use of two technologies for the prevention of malaria in Northern Uganda. He explores the differences in how human behavior, malaria vectors, ecological environments, and political discourse are (dis)connected in the context of residual indoor spraying of chemicals as compared to the increasing propagation of insecticide-treated bed nets. In so doing, Umlauf argues that health planners deliberately conceal the causal relationship between indoor spraying and the diminished malarial immunity of those who have been subject to such costly interventions over the course of many years. The resulting risk of people's lack of understanding and acceptance of bed nets as an "option with no choice," given the intended cessation of indoor spraying programs, presumably leads to the increasing occurrence of ever more severe malaria epidemics.

As the contributions of this thematic week show, an analytic focus on the specific conditions, effects, and strategic implications of the im/mobilities of and dis/connectivities between the numerous elements constituting medical assemblages can be helpful in illuminating the particular power dynamics involved in their coming into being. In this way, the pieces expand our perspectives on the *patternedness* of flows and blockages in medical globalization and help us to understand the ways in which highly diversified – and partially non-occurring – modes of mobility and connectivity constitute bodies, health, care, and healing in an interconnected world.

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Reviewing the Review Process

Judith Beyer
February, 2017

As Allegra's reviews editor, I am not only dealing with awesome new publications every week, but also get to think and talk a lot with authors and editors about open access policies, the reviewing process and whether or under what conditions academics should be financially rewarded for their expertise which they are often expected to provide for free. I received an email the other day which I thought was interesting. It went as follows:

> *“Dear Colleague,*
> *All of us who publish in scientific journals know the frustrations of the peer review process: endlessly waiting for an uncertain outcome.*
> *We have built a website aimed at changing this situation. At https://www.SciRev.sc researchers can share their experience about the review process and select an efficient journal for submitting their work. We already have received over 3000 review experiences, an overview of which can be found at https://www.scirev.sc/reviews/. At the website you can make comparisons by scientific field, or look at the ratings of specific journals. Many researchers supplement their ratings with a motivation which are very interesting to read. These provide a recognizable and sometimes revealing picture of what researchers experience in their attempts to publish their work.*
> *Given the large number of scientific journals, more reviews are needed to make good comparisons possible. We therefore invite you to come to our website and fill in the short questionnaire to share your experiences with your colleagues. SciRev also offers you the possibility to create a free account where you can administer your manuscripts under review and create a personal journal list.*
> *Thanks on behalf of the research community,*
> *Janine Huisman & Jeroen Smits”*

I am personally regularly torn between seeing the beauty in “sharing” our knowledge via the peer review process and criticizing what is increasingly an exploitative system run by corporations on the back of mostly untenured, precarious scholars. Anna Tsing, in her recent book (2015), puts the finger in the wound when she depicts the commoditization of scholarship as being “[o]ne of the strangest projects of privatization and commodification in the early twentieth-first [sic!] century” (p.285). SciRev as a database might help its users to calculate costs and benefits and it promises to ease frustration rather than adding yet another sterile way to measure creativity. I wanted to know more about this project and contacted the people who run it. Janine Huisman was so kind to answer my questions.

Judith: Thank you for agreeing to answer my questions, Janine. You have a background in anthropology and economics; what were your personal experiences with peer review, given the fact that you are covering two very different disciplines? What led you into developing SciRev?

Janine: Jeroen Smits, my colleague and co-founder of SciRev, and I both have a background in Social Sciences. Jeroen studied psychology and sociology in which he also has a PhD. I studied economics and anthropology and have a PhD in Management Sciences on an interdisciplinary topic (education in developing countries). Some bad experiences with the peer review process (the usual ones, waiting very long for a rejection based on weak review reports) led us to the decision to start this website.

Judith: On your website you argue that the peer review process "is one of the weakest links in the process of scientific knowledge production" – could you elaborate and explain how SciRev makes things better?

Janine: Whereas other phases of the scientific process have become much more efficient in the last decades, the duration of the peer review process has only increased. Review reports have become more detailed and the number of review rounds have increased. Writing a review report has become more work and intellectually more challenging, but the peer review process is still largely reliant on invisible, voluntary work by researchers. At the same time, publication pressure, teaching load and bureaucracy has increased tremendously. On the one hand, this has led to more submissions, which have to be reviewed. On the other hand, this also means less time to spend on reviewing. For editors it is becoming more and more difficult to find reviewers who are willing and able to send in review reports in time. Researchers on the other hand, complain that the peer review process is too slow and review reports often are of substandard quality.

Writing a review report has become more work and intellectually more

> *challenging, but the peer review process is still largely reliant on invisible, voluntary work by researchers.*

Judith: There is so far little coverage of anthropological journals in SciRev. How can this be changed?

Janine: There already are quite a number of anthropological journals which have been reviewed on SciRev (you can see these by typing in ‘anthropology’ in the right, green search engine on the SciRev-website). However, of course it would be wonderful to cover many more anthropological journals.

> *We hope that anthropologists who read your blog will visit our website and report their experiences with the submission process of their papers. The more anthropologists do so, the more useful SciRev will become to all of them.*

Judith: Why should journal editors be interested in submitting information to SciRev?

Janine: The most important aim of SciRev is of course to give authors the possibility to share their experience regarding the peer review process with their colleagues. With this information it will be easier for authors to choose the right journal in which to publish their work. Editors can supplement the information available at SciRev with other useful information that helps authors to select a journal to publish their work. We have obtained very positive feedback of editors who use the information posted on SciRev by their authors to improve the quality of their editorial processes.

Judith: Last year you wrote on your homepage about setting up a paid review system in which referees get a fair payment for their work (around 100$ per review) if they manage to complete their review on time. What has come out of this idea and how do you intend to realize it?

Janine: We think that a major weakness of the peer review system is that it is based on charity. You cannot say to volunteers that their reports came in too late or are of low quality. If reviewers are paid for their work, it is possible to set quality standards and requirements for a speedy return. We therefore think that it is unavoidable to make this step, although the change probably will go slow as it is quite a different way of approaching the peer review process than people are used to.

> *We think that a major weakness of the peer review system is that it is based on charity.*

Our initiative has led to a large database with researchers prepared to review for pay and we are now discussing the system with publishers. We hope within not too long a time to start some pilots, but given that it involves a complete new way of peer reviewing it may take years before this transition is completed. Changing a system that has existed for such a long time is not easy.

Judith: Thank you very much!

Please check out SciRev's website! You can also follow them on Twitter for regular updates.

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