Engaging cultural humility diffractively

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Abstract

Rationale: Conventional models of cultural humility - even those extending analysis beyond the dyad of healthcare provider-patient to include concentric social influences such as families, communities and institutions that make the clinical relationship possible - aren't conceptually or methodologically calibrated to accommodate shifts occurring in contemporary biomedical cultures. More complex models are required that are attuned to how advances in biomedical, communications and information technologies are increasingly transforming the very cultural and material conditions of health care and its delivery structures, and thus how power manifests in clinical encounters. Methodological Intervention: In this paper, we offer a two-pronged intervention in the cultural humility literature. At a first level of analysis, we suggest the need to broaden understandings of culture and associated workings of power to accommodate the effects of biomedicine's technologising turn. A second level of intervention invites experimentation to broaden the availability of methodological tools to analyse and assess the multidimensionality of technologies and their agentic effects in healthcare encounters. Drawing from new materialism theories, practices of care are approached "diffractively" as contingent and dynamic material-discursive events. Our neo-materialist framework for cultural humility expands analytical sight-lines beyond hierarchical relationships and dichotomies privileging humans (practitioner and/or patient) as sole actants in the clinical exchange. Attended to are the ongoing dynamics of practices entangling big-data driven knowledges and interventions, pharmacological technologies and material instruments and devices, diseases, and the bodies/subjectivities of health care providers and patients. We investigate the implications for clinical assessment if a cultural humility framework is methodologically attuned to the clinical encounter as a discontinuous, discursive-material process producing multiple, contextually emergent data moments and objects for analysis. Engaging evaluative inquiry diffractively allows for a different ethical practice of care, one that attends to the forms of patient and health provider accountability and responsibility emerging in the clinical encounter.

Main Text

Introduction:

Cultural humility has emerged as a complex, politically attuned branch of culturally informed practices[1] that foreground diversity or multiculturalism - broadly defined - as a core value of contemporary health care delivery and education[2]. Understandings of cultural humility vary across context and authors, although a constellation of key attributes have emerged since its conceptualization by Melanie Trevalon and Jann Murray Garcia in the late 1990's[2]. Cultural humility has been described as an ethically engaged, context specific[3], and dynamic set of professional practices attuned to the impact of social and cultural determinants of health on marginalised populations' health outcomes and associated social and economic opportunities and capacities[4,3]. Critical reflection on the health care provider's own socially situated personal and professional self-identities and knowledges[5,2] is understood as a core means of assessing the myriad ways in which structural relations of power manifest in the clinical encounter, including prejudices and stereotypes held by clinician and patient alike[6,3]. Attention has been variously focused on the health practitioner's investments in "egoless practice"[1] and "not knowing"[2]. These practices, in turn, are understood to be essential compo-

nents of an epistemological stance in the face of the patient's situated knowledges about their own embodied and culturally informed health experiences[6].

These definitions weight on different aspects of professionalism, and perhaps more specifically, on professional values[7]. Authors variously emphasize the need for an ongoing learning and refinement of skills, such as respect for cultural difference and decentring Eurocentric normative values[1], openness to new ideas[1] and interrogation of personal biases and assumptions[5]. In speaking to the need for cultural humility in health professions' education, Chang, Simon, and Dong[8] propose a comprehensive framework that extends beyond the dyad of healthcare provider-patient. By drawing attention to concentric social influences such as families, communities and institutions that make the clinical relationship both possible and effective, their expanded definition advances a call for a complex understanding of culture and a call for the integration of a spectrum of situated knowledges in clinical practices. In this re-articulated calculous, effective healthcare is seen as the product of an assemblage of social interactions, social contexts, and differentially held ways of knowing and being.

To be sure, cultural humility, understood as a social process conducive to the radical rethinking of power relations[1] and vulnerabilities inhering in the professional spaces of health practices is a needed and welcomed advance. And yet, despite these refinements, current frameworks of cultural humility, including Chang et al's model, lack capacity to accommodate shifts that have been occurring in contemporary biomedical cultures. More complex models are required that are attuned to how advances in biomedical, communications and information technologies are increasingly transforming the very material and cultural conditions of health care delivery, and thus how power manifests in clinical encounters. Attention, in other words, needs to be broadened beyond a structural accounting of the experiences of those with marginalised social identities to encompass a less straightforward, and yet potentially richer investigation into the workings of power activated in the wake of shifts towards highly technologised biomedical practices. A case in point, is conceiving of a cultural humility framework that is able to grapple with how health care providers conceive of, and manage decision making in the face of two incommensurate knowledge systems that present in the clinical encounter. On the one hand, practitioners are mandated to consistently apply Evidence Based Medicine models of clinical care. These models are facilitated and supported by a suite of decision-making technologies and data management systems; computer technologies such as Electronic Health Records (EHRs) facilitate flows of what has been deemed essential information directly into the space of the clinic. In this sense, their presence is both material and discursive, effecting new means of decision making and new levels of professional accountability. On the other, health practitioners are expected to perform culturally sensitive, value-driven and patient-centered practice. Under this model, clinicians are expected to engage with the patient as a unique social and biological individual[9]. While the former focuses on population-level logics, the later focuses on clinicians' ability to comprehend and adjust according to patients' experiential knowledges, socio-cultural contexts and investments in self-care that too have become technologically mediated[10]. The complexity of knowing demanded by the emergence of contemporary technologies-driven health decision making and care delivery systems requires new methods of observation, new ways of analysing health phenomena and health bodies and new ways of examining our place as practitioners, researchers and educators in practices of health care delivery.

In this paper, we offer a two-pronged intervention in the cultural humility literature. At a first level of analysis, we suggest the need to broaden understandings of culture and associated workings of power to accommodate the effects of biomedicine's technologising turn[11].A second level of intervention suggests the need to broaden the availability of methodological tools to analyse and evaluate the multidimensionality of technologies[12,13]and their agentic effects in healthcare encounters. Through a selective reading of feminist neo-materialism theories, we introduce a framework for cultural humility expanding analytical sight-lines beyond hierarchical relationships and dichotomies that privilege the human (practitioner or patient) as sole actants in the clinical exchange. Rather, in our reformulation, practices of care are approached as dynamic material-discursive events entangling big-data driven knowledges and interventions, pharmacological technologies and technologised material instruments and devices, diseases, and the bodies/subjectivities of health care providers and patients.

We first examine the social-material circumstances that have given rise to a need for new approaches to doing culturally humble, power-attuned health care work. We then introduce what we propose is a more "diffractive "[14] reformulation of cultural humility detailing the framework's key working assumptions and propositions. We then extract lessons learned from piloting a visual, neomaterialist methodology in New York and adapt these learnings to the context of technologised practices of clinical care. Drawing from a case illustration grounded in our visual data, we consider the implications for assessment if a cultural humility framework is methodologically attuned to the clinical encounter as a discontinuous, discursive-material process producing multiple, contingent data moments and objects for analysis. We conclude the paper by highlighting the framework's capacity for critically engaging evaluative inquiry as an ethical practice that attends to the forms of patient and clinician accountability and responsibility emerging in the clinical encounter.

Contextualising the need for a different approach to cultural humility:

Since the 1980s, social scientists have tracked the increasing democratization and technologising of medical knowledges, and the consequent ethical-political transformations that have been brought to research and medical practices[15,16]. As these authors differently suggest, current socio-cultural practices of health care systems have been reconstituted in several interconnected ways. Medical guidelines for assessment and intervention, together with the authority of practitioners have become organized epistemologically (and increasingly, legally) in line with mathematically driven evidence about population health and pharmacological treatment efficacy[10]. As previously mentioned, computer stations housed in the different spaces of clinical engagement (eg., examination room) feed a constant flow of health information to health care providers. The screen together with its informational flows demand material-discursive attention, and yet, the care provider is compelled to simultaneously stay near to the patient as an embodied physical presence and as a differently attuned source of knowledge[17,18].

This felt tension between often incommensurate epistemologies - evidenciary truths revealed by computational, big-data analytics, and everyday patient and professional situated knowledges derived from the contingencies inhering in clinical based interactions[10] - is reflective of the entwining of what[19] and Rose and Novas[20] have differently labeled bio-citizenship and the technologising of medical knowledges. The rise of grass-roots medical activism over the past four decades by those most affected by different diseases has been a central catalyst in a shift towards a consideration of the epistemologies of the patient in medical decision making and formation of health policy (including the rise of more culturally attuned models of care)[21,22]. Concomitantly, advances in technologies assisted storage and dissemination of information have allowed for the democratisation of access to a host of health knowledges, including those generated by corporate sponsors or patient-based social movements outside or alongside the knowledge producing apparatus of biomedicine[15]. From self-help strategies, to vaccination scepticism, to evidence generated via random control trials or social media reporting, distributed forms of knowledge are widely transmitted via the internet to a host of health consumer publics[20], and are significant actants in the clinical exchange[11].

Regulatory mechanisms of medical care systems have also been transformed. Governance structures have steered away from a "government by command" model that imbued physicians with decision making authority, towards an "uncoupled system of self-steering"[10]. This is a system of diffused management and "distributed accountability"[10] where not only health care providers but patients - at least those represented by powerful lobby groups in advanced democracies - have become equally implicated in effecting positive health outcomes[23,24]. In this shifting, governmental, technologically mediated calculous, the very conceptualisation and (embodied) practices of patienthood have been rearticulated[20]. Patienthood is no longer being conceptualised as a site of localised pathogen, but as a site of agentic decision making, health/wellness/illness management and (moralized) accountability[16,22].

In the wake of these transformations, the social-health experiencing body has become a site of technologised hybridization entangling the somatic body, social identity and technologies. Pharmacological prophylaxis, the growth of communications and new "smart" technologies are facilitating the intensification of physician guided and patient administered health surveillance and diagnostic capabilities. Boundaries between the previously conceptualized "natural" body, and the technologies understood to be integral to its existence

and correct functioning have become confounded. So much so, in fact, that today's "techno-scientific" bodies are comprehended as bodies in a continuous process of becoming 'healthier' – always in a state of 'recovery' from but also in avoidance of biological vulnerabilities[9].

Methodological Intervention: Attuning Cultural Humility to the social-material contingencies of the clinical encounter:

The complexity of knowing demanded by the emergence of a technologies driven and supported, distributed, and information fueled health decision making system requires a renewed sensibility towards cultural humility. The methodological framework for cultural humility that we propose below to address these challenges repurposes the methodology of "diffraction" introduced by feminist, neo-materialist scholar Karen Barad. We also draw insights from education, science and technology and social science researchers who have adapted a diffractive analysis to expand understandings of their own research and educational contexts[25,26,27]. We suggest that a neo-materialist diffractive approach re-orients the practices of cultural humility away from reflexive modalities of evaluation and assessment towards a more relational and implicated way of engaging the material and cultural (discursive) contingencies of contemporary clinical care.

Departures:

The optical metaphor of "reflexivity" or critical reflection is held centric in most conventional cultural humility frameworks as an essential approach to knowing about the social and researchers/practitioners' own embeddedness and the social embeddedness of their patients in social-health worlds[5]. As an approach to knowing, reflexivity suggests the inquiring subject's capacity to mirror back to themselves the social or physical realities of a context, bodies or objects under consideration. Reflexivity, in other words is ultimately concerned with an analysis that has a fidelity to, or searches for a more authentic engagement with the truth about natural or social phenomena, such as social determinants of health impacting the differential health experiences of patients who hold marginalised social identities[28]. In this sense, conventional models of cultural humility engage the use of the critically reflexive professional self as a powerful tool for both diagnosing the social-physical truths about the patient's body and assessing structural expressions of power manifesting in the clinical encounter[5]. Specifically, critical reflexivity, in this calculous, permits a certain epistemological window into the materiality of the patient's body and embodied experiences of health/illness as social artifacts produced in and through cultural and social forces, or as natural entities over-layed with cultural, psychical and social interpretation. In both of these senses, reflexivity tends to assume an a priori fixity of the observed phenomena under examination in relation to the socially situated reflexive self[29].

Several other ontological - epistemological assumptions about the bodies, subjects and objects encountered in clinical space ground critical reflexivity's logics: There is an objective status ascribed to the patient's body and to other non-human material objects. As example, medical instruments, viruses, diagnosing technologies, pharmacological treatments, and various relevant social/cultural factors are understood to be determining of - and thus ontologically separable from - the socio-materiality of the patient's body and presenting health issues. As consequence, each of these elements are treated analytically and in practice, as knowable (or to be known), stable objects. Epistemologically stabilising the heterogeneous, constitutive elements in a patient's embodied and psychical life-worlds into recognisable social identity/morphological categories (eg virus, social determinants of health, social categories of race, gender, sexual preference, age, etc), allows for an ease of translation of the differentiated body - scaled at the level of the individual patient - into an evidence based medical knowledge calculus, formulated at the scale of the population. It is in the wake of translation across two different ontological expressions of health subjects/bodies where intervention and treatment plans are articulated with technologically driven governance models of care[9].

Critical reflexivity is at the crux of this epistemological operation. And yet, as we have explored, reflexivity as a culturally humble standpoint - because of its human-centricity and its predisposition to invoke binaristic separations between human and non-human elements - isn't nimble enough to inquire into and assess the emerging problematics of technologised practices of care. The possibility that patient's knowledges, together with the epidemiological-social categories of risk upon which diagnoses and treatment plans hinge are con-

stituted materially and discursively through the techno-scientific practices of contemporary biomedicine[29] is unthinkable in this model of clinical assessment and evaluation. In other words, reflexivity in a cultural humility framework lacks an epistemological interest in looking otherwise at differences. There is a contemporary need to evaluate differences not as "homologies and analogies between separate entities"[29] but as the effects of complex entanglements of discursive and material elements brought into play in the clinical encounter. In addition, a reliance on reflexivity analytically keeps manifestations of technologised health-care knowledge and decision making at a distance from its object of study. Methodologically foreclosed in this analytic is the possibility of considering in what ways practices of reflexivity might themselves be productive of the health phenomenon being observed and evaluated[29].

Assessing/engaging differently:

Barad's conceptualisations of diffraction provide an alternative, and we would argue a welcomed methodological intervention for engaging in contemporary culturally humble healthcare work. Diffraction as a scientific phenomenon is conventionally understood as the patterns resulting when any type of wave (as example water, sound or light) encounters an obstacle. The patterns result as wave components combine or cancel one another out as a result of the interference[29]. Repurposed as a metaphor, diffraction is about the breaking apart and re-assemblage of physical properties in new configurations and their iterative movements in alternative directions[14].

Several working points from Barad's "turning over"[14]the metaphor of diffraction as a strategy for ethically encountering and investigating the social-material world making of scientific (health) engagements inform our renewed cultural humility framework. A diffractive analysis allows for a troubling and rethinking of conventional culturally humble approaches to assessing social and material difference articulating in healthcare encounters[14]. Here, we can think of the types of social differences or divisions that are normatively held and demarcated in health care practices, such as clinician//patient; communications and biomedical technologies// human bodies; the reflexive practitioner//objects and subjects to be attuned to; big data driven knowledge//patient self-knowledge. As a methodological standpoint, diffraction attends to the "relational nature of difference"[29]. The clinician is afforded an opportunity to "record the heterogeneous histories"[29]- the patterns and effects of interferences, disruptions, and reconfigurations that are agentially emerging in the technologised and knowledge distributed space of the clinic. In other words, a diffractive analysis "highlight[s], exhibit[s], and make[s] evident the entangled structure of the changing and contingent onto-epistemologies" of the clinic[29] including the embodiment and materiality of knowing. Through a diffractive lens, different practices of knowing (such as data driven population risk profiles, technologically fed patient information, the patient's body speaking through symptoms, patients' self-understanding(s) are approached as "material engagements"[29] entangling with other bodies, technologies and meaning systems. It is in their complex intra-actions, that prognosis and health effects are produced and become meaningful. In this sense, a diffractive analysis is attuned to the contingent materialities that emerge in the clinical encounter as markers of the complex relationalities of heal-care encounters: what relational elements are brought into play, what becomes meaningful, what social-material properties are deduced, what boundaries enacted, what relational forces of power are materialising, what alterities proclaimed, and what rules for intervention are being put in place?

These questions of differences and their emergences also present an ethical challenge for the culturally humble and attuned practitioner. Questions of ethics in this framing of culturally humble diffractive responsiveness aren't separable form what gets materialised and made meaningful in the clinical exchange[29]. In other words, practitioners are encouraged to account for the performativity of their own discursive-material imprinting in the clinical encounter, and their own practices of assessment as co-constitutive of social-health effects.

We turn to, and repurpose, the lessons learned from a research case illustration to highlight the benefits of approaching evaluation and appraisal "diffractively" in the context of technologised practices of care.

Discussion: Knowing the sexual-health subject differently

During the course of a New York based pilot study (2016-2017), we drew from multiple sources of data

to investigate gay and queer identifying men's social-sexual health practices at the nexus of virtual worlds and technologised HIV prevention strategies (particularly, Pre-Exposure Prophylaxis).The different data entry points included digital ethnography on cruising/dating apps, reading through participants' biweekly social-sexual health diaries, follow-up interviews, and the experimental visual based methodology we named Embodied Mapping[13]. In the process of the pilot, it became evident that methodological choices were productive of different discursive-materializations of participants' self-understandings, embodied sexual-health practices, socio-spatial-sexual histories and entanglements with public health discourses and biomedical and communication/mediatic technologies. In other words, each research engagement brought researcher and participant into different epistemological and material relationships with phenomena central to our research study - HIV risk, risk management, and their entanglements with virtual-real-time social-sexual intimacies.

A Case illustration: Ian's embodied sexual-health experiences read through the different methodologies of our pilot serves as illustration. Ian is a mid 20's black, gay identifying man. An epidemiological approach would categorise Ian as belonging to a population group at high risk for HIV infection. As of 2017, the Center for Disease Control reported that black/African American identifying gay and bisexual men "accounted for 26% of new HIV diagnoses"[30]. Key social determinants of health contribute to these elevated risks: the legacies of racist violences against black/African American communities, lower levels of HIV literacy in comparison to the general population, and due to socio-economic or migratory status, black queer/gay and bisexual men are more likely to be under or uninsured, making access to prevention and care difficult. Certainly, a SDH approach is a helpful entry point for understanding Ian's vulnerabilities and responses to HIV risk. This form of epidemiologically driven knowledge, affirmed through conventional approaches to cultural humility allows the researcher/practitioner to tease out the tensions between Ian's social-identity markers, his lived racialized experiences and privileges as a USA born gay-citizen. As we learned from his interviews and diary writing, Ian's social identities and sexual health histories criss-cross epidemological facts. He has secondary education, no employer paid access to health coverage, and rudimentary levels of knowledge about current HIV prevention technologies and public health. In the interviews, we learnt that Ian made claims to being a responsibilized sexual citizen; By his own admission, he always "plays safe" - a vernacular expression originating in public health discourse to signal a belief in using condoms and/or other negotiated sexual practices to prevent HIV transmission. From the sexual diaries, we also learnt that Ian was embedded in digital and real-time sexual-social networks nurtured, to an extent, by a public health call for PrEP uptake as an HIV prevention technology. In Ian's narratives, gay pornographic web-mediated imaginaries were simultaneously present with his experiences of sexual rejections and attractions based on his racial presentation. A reflexive stand that considers the broader socio-cultural determinants of health is attuned to analysing the cascading effects of power on Ian's life and on his HIV prevention strategies. However, we were left wondering whether there were other meanings and bodily affects that troubled his felt sense of "being safe" in excess of what this framing could highlight, or whether the phenomena of safety and risk that we were trying to grasp wasn't singular but multiple and differently configured depending on what elements were being brought into play.

Embodied Mapping's diffractive approach (see Figure 1) opened up new possibilities for recording these "heterogeneous histories" that were becoming evident in our pilot study[29]. Thinking diffractively allowed new analytical sight-lines for seeing risk and virtual intimacies as emergent, multiple, and contingent discursive-material phenomena. It attuned us to power differently, not as predetermined conditioning forces, but as relational time-space occurrences[13].Through Ian's mapping of intimacies and risks, we learned that lack of biomedical information is not foundational to his rejection of Pre-exposure Prophylaxis (PreP). Rather, it was the specificities of Ian's relational 'real-time'/ virtual entanglements that are constitutive of his health decision-making. In the map-making process, Ian identifies that while serving in the military he became seriously ill, which he attributes to the military's purposeful and deceitful exposure of his body (and others) to the anthrax virus. The maps highlight the highly contextual matrix of elements constitutive of this felt bodily risk: the military's betrayal of its promise to materialise basic citizenship rights, including access to healthcare; violent discursive/material biopolitical histories involving the routinized scientific exploitation of marginalised subjects for drug experimentation, vaccine trials and disease prevention; and his experiences

of being racially profiled and exoticised in the virtually intimate worlds of hook-up apps. As a diffractive approach, Embodied mapping was able to trace the ways in which the entanglement of militarised histories, biomedical experimentations, and his situated experiences of imbricated masculinities across geopolitical landscapes and the social-sexual worlds of hook-up app technologies were productive of PrEP, in Ian's words, as a "creeper" materiality that compromised his capacity to play safe.

At one level of analysis, Ian's rejection of PrEP is certainly a product of the traumatic effects of power and is outside of the reach of current HIV prevention logics. But to name this rejection as rooted solely in Ian's own cognitive-bias or his racialised victimhood - a certainty that could be ascertained through a reflexive, social-determinants of health framing - misses the multiple and entangled processes that comprise Ian's world making in digital hook-up culture and real-time exchanges. A diffractive, culturally humble approach, instead, records the ways in which the discursive-materialities and histories of bio-power become entangled in his psychical and bodily sense of well-being. In turn, thinking diffractively would allow for the researcher/practitioner to be attuned to how these materialisations of power are constantly emerging and in flux through his hook-up app use. In other words, our proposed methodology highlights Ian's here and now movements across different geo-political, familial and technologised sexual-social spaces (and we must add, movements within the clinical exchange, or during the process of research) as they are cut through with these space-time configurations of state facilitated violences and their resistances. Approaching the work of cultural humility differently enables understanding Ian's possibilities of risk and safety not as mere artifacts of the mind or education, but rather as negotiated relations sedimented with the histories and effects of biopolitical economies and secured by digitalised communications flows.

Concluding lessons/takeaways for practitioners

The complexity of perspective that a diffractive, cultural humility framework invites is both potentially daunting to grasp and yet promising in its ability to broaden and deepen understandings of technologised patient-caregiver experiences and health-care exchanges. As a means of moving forward from the grasp of epistemological paralysis, we propose the following steps: Our framework encourages health practitioners (including researchers) to preserve ambiguity and contingency as productive of reflexive research and clinical practices. It encourages the slowing down of efforts to seek immediate epistemological certainty. Moreover, our framework invites opportunity for the health practitioner to pay granular analytical attention to the here and now problematics germane to contemporary health care delivery. In other words, if we can imagine evaluative practices as analogous to our embodied maps, we can consider how vital the clinical assessment is as a diffractive recording of what has been emphasised in the health-care exchange and as consequence, allowed for or bracketed from consideration. Engagements such as risk management and assessment, treatment planning, and evaluation of patient's drug adherence are not grappled with analytically or ethically as stable fixed objects independent of the contingencies of scientific practices and their social-psychical health worlds, but as discursive-material phenomena that emerge differently and continuously within the complex relational fields of the clinical exchange. In other words, health practices, including how diagnosis and interventions are embodied and lived by patients, and the power relations that shape them are understood to have relational affects. Viewing culturally humble practice this way invites an opportunity to engage clinical inquiry and assessment as a deeply ethical practice[29] that attends to the forms of patient and clinician accountability and responsibility emergent in the clinical encounter

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