

Contrasting Political Ontologies of Neurodiversity in High-Concussion-Risk Rural Cultures

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WHEN WORKING ON HEALTH PROMOTION EDUCATION in cross-cultural settings, one quickly comes upon philosophical tensions. Two of the most discussed tensions are cultural differences in epistemology (how peoples think things are known) and in ontology (what are real things, or the types of realness; e.g., Duran, Firehammer, & Gonzalez, 2008; Blaser, 2009). The ontological tensions in cross-cultural situations are further complicated when political considerations are introduced; when politics are introduced into the arena of what peoples think are real things, some authors refer to this as political ontology (e.g., Blaser, 2009).

In this paper we will examine two models of political ontology – Blaser (2009) and Rocha (2015) – each integrated with the concept of neurodiversity (Fenton & Krahn, 2007; Glannon, 2007a, 2007b) to produce an analysis of high-concussion-risk rural cultures. This will show that there are hidden, culturally imperial hazards in the medicalization of socially constructed norms of health (Illich, 2001), and that groups with members of differing, but culturally syntonic, neurologies possess equal-but-different functionality as healthy human people. We draw on lived experiences as members of such groups, and on years of personal conversations along these lines with rural peoples.

The Problem of Commodification of the Subject

Our general concerns surround cultural imperialism and rural ways of life. Therefore, we would like to make it clear that we use one body of literature (on risky play and concussion) as an example to help ground our general discussion; the topic of the example does not comprise the entire scope of the paper, which contains more general application. Whereas concussion and risky play are particular examples, our concern is the much larger question of cultural commodification of the body in relation to imperial norms; we are not just discussing head injuries and play, but the larger issue of power relations between government and the bodies it renders docile (see Foucault, 1961/2013). The social sciences have played a role in this domination by reinforcing ideas of the body as sensitive to pressure changes, primarily reactive, and in need of pampering and treating. To illustrate, causes of brain injury are often described in the literature using passive language such as motor-vehicle-related accidents and falls (e.g., Stallones, Gibbs-Long, Gabella, & Kakefuda, 2008). The extension of the basic thesis of Foucault's *Madness and Civilization* (1961/2013) from psychology to physiology is not hard to see in the global North, where play itself is seen as a risk and potential harm.

We acknowledge that whenever social scientists make normative and prescriptive claims about what it is to be human, they impose ways of being that have existential and political consequences. In other words, there is an existential effect when a subject is formed according to a particular sense of self prescribed from the outside, and this becomes political when the social order takes these prescriptions and turns them into norms and laws.

What does not change, however, is the ontological remnant, the unshakable things themselves that resist commodification and power (Rocha, 2015). Here we find a political ontology in the most basic sense: between the power-over existential and political regimes of truth and an ontological world that cannot be changed overnight. This is our primary philosophical interest in this paper, particularly as it relates to threats to rural cultures. Political ontology (e.g., Blaser, 2014) and neurodiversity (Glannon, 2007a, 2007b) are devices with which to pursue this argument, and we hope to do so in a more philosophically sound manner using folk phenomenology (Rocha, 2015) to politicize ontology.¹

Risky Play

First, we will examine risky play among children, since it is a straightforward example of the conflicting interests between advocates for safety and advocates for courage. The literature on risky play contains admonishments from both sides of the safety-versus-adventure debate. Some studies evaluate and advocate for culturally de-contextualized, top-down, medicalized, and statistically-derived curriculum of safety interventions (e.g., Morrongiello & Kane, 2015). This is evidenced by the way such studies frame their goals: “Understanding the circumstances that influence risk of injury is essential to reducing the burden of this significant child health issue” (Morrongiello & Kane, 2015, p. 61). It is also evidenced by how they frame the challenges they run into: “One of the greatest challenges faced in community-based intervention work is program delivery. Standardization of delivery procedures is necessary for fidelity of program implementation across sites” (Benet-Martínez, Leu, Lee, & Morris, 2002, p. 67). And it is evidenced by the types of interventions chosen and the lack of reflexivity around cultural imperialism: “An *induced hypocrisy* manipulation in which children publicly advocate for avoiding risk-taking behaviors that they previously performed also has been shown to reduce risk taking” (emphasis in original, Benet-Martínez et al., 2002, p. 63).

Gleason's (2017) history tells a story of educational reforms motivated not by child safety but by socio-political interests. Children came to be seen as:

priceless figures endowed with strong sentimental, rather than economic, value. Sacralized in this way, children were associated, at least rhetorically, in public discourses of health, welfare, and education with the need for protection against harm in its many forms. The early twentieth century witnessed the flourishing of urban social reform seeded by middle-class anxieties regarding the health and well-being of white middle-class children and the forces of disorder that threatened their protected childhoods. Crowded unhealthy cities, the unruliness of the working class, the influx of new immigrants, and other tensions motivated much of the reform movement. (pp. 38–39)

Others, such as Little (2015), frame risky play as primarily (although not exclusively) an issue of rights of children to mobility and as fundamental to childhood development of the skills which form competent adults: “This practice supports children’s healthy development, satisfies their curiosity and allows them to appraise risks in their environment and practice safety strategies. Experiences such as these allow children to independently make decisions that gradually prepare them for adult responsibility” (Little, 2015, p. 26; see also Romero, 2010). Little encourages a cultural and contextual perspective on risk because risk comprises myriad forms “that are socially constructed, varying from one context to another and both within and across cultures” (2015, p. 25).

Indeed, there may be an artificial distinction between what is seen as risky play among children and risky work among adults. While the developmental stage of each type of person who is put at risk may differ in some respects, the categories of risky play and risky work are not mutually exclusive of childhood and adulthood (i.e., adults can engage in risky play and children can engage in risky work), nor do risky play and risky work seem to distinguish themselves in any way other than the intuitive sense that a risk is more “risky” to a child than to an adult. Nonetheless, the line dividing childhood from adulthood is one that has been constructed over time as well, as we see in childhood studies and the history of children (Postman, 1994).²

We are not offering a theory of risk. Rather we are critiquing a certain theory of risk being imposed through an educational ideology. The reader may be led to assume that we are asserting a sense of risk, but we think it is reasonable to say we are not; we simply have an intuition that the phenomena which are labeled risk are not seen as risk from a rural sensibility. Indeed, the phenomena labeled risk by urban educators are not even coextensive with the phenomena that rural people variously call life, work, and fun. There is only limited overlap, which makes the dominant category of risk objectionable to rural people. This is precisely because for them, life, work, and fun, as life-ways, do not submit themselves to be disentangled into discrete “modifiable factors” (Langlois, Rutland-Brown, & Thomas, 2005, p. 236), enabling the easy exchange of supposedly broken parts (risky activities) for replacement with supposed upgrades (safe activities). This sentiment, along with an imposed medical criterion of truth, are visible in Mokhosi and Grieve (2004): “Negative cultural behaviours (i.e., those that may be harmful to health) should be identified and attempts made to change them, without interfering with local belief systems” (p. 315). These targeted general aspects of rural life-ways are not conceived of as risk by rural people, and to say that X is not risk is not to say that X is Y. This is where our decision to engage folk phenomenology is fitting. In the absence of a concrete definition of risk as a discrete behavioral class, folk phenomenology allows a concrete description of larger phenomenal life-ways.

One may wonder how the above relates with Rousseau’s (1979) construction of childhood and how our account relates with romanticism. The explanation is that we are not just talking about children. We focus on childhood simply because children are targets of an imposed anti-risk educational, cultural action. Particularly, among all members of rural societies, children represent the most vulnerable targets of an imposed ideology. Yet, our point is about rural peoples generally. This sidesteps the need to distinguish our work here from the literature promoting the benefits of risky-play, such as social and

leadership skills (e.g., Little, 2015). Undoubtedly this is the case. Yet, our drive is towards the sovereignty of folk life as lived over the lifespan, which is only cut short by contact with modernist compulsory education.

Medicalization and Decontextualization in Concussion Prevention

We will now turn to concussion as a ramification of risky play (or risky work). First, we will outline a medical perspective on concussion to deliberately illustrate the treatment of risk from this perspective. Then we will turn to a critical cultural perspective on concussion as a segue to further analysis, where we will advance a perspective on culture which will become central in our examination of educational interventions around risk.

From a medical perspective, mild traumatic brain injury, or concussion, is a prevalent neuro-medical condition leading to well-established deficits in cognitive functioning (Karr, Areshenkoff, & Garcia-Barrera, 2014). Karr et al. (2014) have critically analyzed meta-analyses of concussion's effects on cognitive impairment and have found effect sizes ranging from 0.07 to 0.61 in general concussion meta-analyses, and 0.40 to 0.81 in sport-related concussion meta-analyses, with executive functioning being the domain most sensitive to multiple concussions. Specific sports such as American football have been identified as particularly high-risk for multiple concussions and subsequent neurological problems (Noble & Hesdorffer, 2013). Zillmer, Spiers, and Culbertson (2007) reviewed evidence for permanent neurological effects of concussion, for cumulative effects, and for negative outcomes ranging from cognitive impairment to mental health challenges to vocational interruption. They stress the importance of prevention and treatment.

In the majority of sources above, discourses center around a specific set of perspectives, namely, the medicalization of concussion (see Illich, 2001); a quantitative public health model (e.g., Morrongiello & Kane, 2015); and a decontextualized and individualized view of circumstances surrounding concussion-risk activities, and a correspondingly individual and decontextualized behavioral educational impetus, often directed at children. They do not give voice to the meanings and traditions of culture. By missing the cultural contexts of concussion-risk behaviors, these phenomena are cast as individual decision-making events affecting individualized, medical-neurological symptomatic outcomes that must be managed through top-down, medicalized, public health educational campaigns (e.g., Morrongiello & Kane, 2015; Illich, 2001).

Briefly, three indications of this set of perspectives within research articles include: 1) introductory framing remarks that often explicitly note a public health perspective; 2) definitions of the subject of interest in biomedical-psychiatric terms; and 3) substantive arguments and types of evidence that are typically quantitative. All three indicators can be seen, for example, in Karr et al. (2014), who argue that "Mild Traumatic Brain Injury [mTBI], also known as concussion, has become a growing *public health* concern, prevalent in both athletic and military settings" (p. 321, emphasis added); elsewhere, they use terms such as *neuropsychological* outcomes and *cognitive sequelae*. The fact that Karr et al. (2014) is a *meta-analysis* indicates the prevalence of *quantitative* perspectives of the issue.

Medicalization of Norms of Health and Humanity

We now turn our analysis of concussion research toward studies focusing on cultural contexts of concussion. We did not, however, find much research available around concussion specifically. Therefore, we will broaden our net to cultural contexts of brain injury more generally.

Some research has addressed cultures of concussion-risk in sport settings (More, 2015; Noble & Hesdorffer, 2013). Certain sport cultures such as American football have been implicated in the highest probabilities of concussion (Broshek et al., 2005). Other cultures may have differential risk levels for concussion due to normative lifestyle choices, values and practices, and systemic factors (e.g., groups defined by ethnic or racial categories may show differences in concussion risk). For example, Langlois et al. (2005) report differing prevalence of childhood motor-vehicle-related head injury between Black children and White children in the United States. Of relevance to us are rural agrarian cultures which are often characterized by physically-active, outdoors lifestyles involving activities that would be considered high-risk by some urban standards. Examples of such normative activities could include riding unrestrained in the back of pickup trucks, using chainsaws to fall trees with no hardhat or protective clothing, riding dirt bikes and mountain bikes on uncut bush trail, skiing behind cars on public roads, and bareback horse and steer riding.

Some research has focused on urban-rural categorizations within an epidemiology framework (e.g., Blackmer & Marshall, 1999; Kegler, Coronado, Annett, & Thurman, 2003). Stewart, Gilliland, and Fraser (2014) studied the epidemiology of pediatric concussion ER admissions and found that rural patients were less frequently admitted than urban patients, given population sizes, and that rural patients were older and more frequently suffered from motor vehicle accidents. Gauld, Smith, and Kendall (2011) used community-based research methods to investigate how service delivery could be increased to Australian Aboriginal peoples. However, this latter study largely retained Western ideas of health and wellness and neglected to give an account of life-ways of so-called risk behavior. While this study sought to increase providers' cultural competence, it resulted in calls for increased medicalized education.

Similarly, in study of community readiness to engage with medicalized educational initiatives (Stallones et al., 2008), engagement is defined along a vertical developmental continuum ranging from denial to confirmation. This definition hardly engages with rural life-ways, and instead subsumes them under the status of denial of a normative urban truth. In this study, school children were targeted by an anti-risk program called THINKFIRST which, while apparently virtuous, also connotes a view of rural peoples as unthinking. In such studies, rural culture is used as a binary or quantitative variable, thereby flattening out any relevance of richer cultural context.

Another group of studies delves deeper into the cultural context of rehabilitation for brain injury patients. Jones and Curtin (2010) provide an interesting qualitative account of the lives of brain injury patients living in rural Australia. However, respondents' reports are reduced systematically to cognitive beliefs, abstract ideals, and social phenomena rather than perceived as valid accounts of rural worlds or the meaning of brain injury in this context. For instance, rural participants' views are seen as mere cognitive attributions onto reality – “individuals imbue particular places with meaning that interacts with their mental state and well-being” (Jones & Curtin, 2010, p. 947); but urban standards of medical services are explicitly noted as reality itself – “even the reality of distance from services was stoically accepted as a part of life for country people” (Jones & Curtin, 2010, p. 947). Parsons and Stanley (2008) provide another Australian qualitative study of rural brain-injury survivors that gives some cultural context to occupational adaptation, but again, begins from a normative medicalized definition and selection criteria.

Two studies report on experiences of Aboriginal peoples in Canada. The first, Keightley et al. (2009), uses participatory action methodology in partnership with First Nations to study rehabilitation in rural Ontario. This study calls attention to political causes of risk of brain injury such as low living standards and service access deficits, and notes a need for culturally appropriate services, but the study uses an a priori conception of brain injury and does not attend to overlapping positive cultural activities of risk. In another study, Keightley et al. (2011) investigate First Nations' spirituality and culture around brain injury healing and gathers a very rich and political account. Yet this study, too, focuses on healing from brain injury, whereas our purpose here is to understand positive cultural activities overlapping with

what is called risk.

A final study from South Africa by Mokhosi and Grieve (2004) relates rural Sesotho-speaking African families' cultural perceptions of brain injury. They attend to etiology, in addition to healing, and also to worldview (as did Keightley et al., 2011). Notably, the study describes facets of culture which offer a non-mainstream view of differential functioning, which is parallel to our present purpose. The saying, "there is no family without a physically challenged person" (Mokhosi & Grieve, 2004, p. 308), characterizes this view, along with a religious position on care as performing the will of God and of ancestors. Etiologically, they note witchcraft and curses, ancestral anger, God's will, and rejection of a calling to fulfill a special role as a traditional healer. This account offers cultural metaphysical details of etiology of brain injury symptoms, but it does not address positive cultural practices that overlap with what is labeled risk.

While the latter treat cultural beliefs in a rich, anthropological fashion, most are limited to an analysis of how to support people going through a brain injury defined by a normative medical account that remains unquestioned (with the exception of studies like Keightley et al., 2011). This is not necessarily problematic, yet it does raise the question we are interested in: what is the nature and meaning of the life-ways and activities of rural peoples that correspond, in some part, to what urban medical perspectives label risky behavior? And, what is the neurological status of so-called "injured" individuals, namely in terms of humanness as defined by rural groups themselves and in relationship to the politics of urban standards?

Globalization of Norms of Health and Humanity

Norms of Health and Personhood Culturally Constructed

Philosophers and psychologists have criticized Western, urban professions for their cultural imperialism, pointing out their alienating processes of converting culturally-normative perspectives on lifestyle choices into individualized medical concerns, which the professions then centrally regulate (Demmitt & Oldenski, 1999; Foucault, 1961/2013; Illich, 2001). For example, Gleason (2017) describes how

public health was at its heart a system of knowledge – power relations in which medical and educational experts claimed authority over the body, its habits, and its (re)formation. . . . Alongside the development of public health and welfare reform aimed to regulate and normalize bodies and habits, the turn of the century witnessed the entrenchment of middle-class priorities regarding childhood as a period of schooling, play, and protection. Reformers, often part of the middle class, included a coterie of child savers who engendered a particular vision of childhood – one marked by the increasing surveillance of the young, the promotion and regulation of structured play, the medicalization of the body and of embodied habits, the criminalization of children's urban labour, and the elongation of years of formal public education. (p. 43)

More broadly, Illich has argued that prevailing mainstream medicalized attitudes towards health and humanness embedded in educational initiatives are often harmful to human dignity and sovereignty. Belanger and Vanderploeg (2013) analyze potential harms of increased screening for concussion including unwarranted anxiety, false positives, and lost productivity during screening. However, this does not go far enough in appreciating the cultural effects of risk amelioration programs. Dominant

cultural attitudes are at risk of becoming enshrined in legal and medical practice, for instance, where they exert disproportionately negative force on culturally different groups. Two examples are the rapid spread of the practice of crude lobotomies in association with misogyny (Zillmer et al., 2007) and unjust laws enforcing dominant-culture standards in child educational interventions with First Nations based on racist norms of humanness (Aboriginal Healing Foundation, 2006).

Exportation of Medicalized Norms and Access Inequities

The influence of one cultural group's normative ideas about health and humanness on other cultural groups is a form of cultural action. Freire (1970) elucidates how such educational projects constitute cultural action and how cultural action is never value-free or politically neutral; it is always tied to political ideology and is often a tool of imperialism.

Illich (2001) also cautions against the subjugating effects of medicalized education in a way that is relevant to public health cultural action against concussion risk contexts. Illich argues that the third world poor are not disadvantaged by Western educational action *qua* education; rather, by inculcating their particular pedigree of education as ideally human, Western elites psychologically subjugate third world citizens by creating feelings of inferiority and irrelevance. In the context of rural cultures seen by another culture as dangerously high-risk for concussion, the hazard is not that urban concussion awareness campaigns (cultural action) will not prevent concussion and subsequent suffering (prevention campaigns do succeed). Applying Illich, the hazard is that when urban society takes its standard of impeccable health – modeled on implicit urban values – and imposes it on rural culture as an ideal of humanness, such action domesticates the rural culture's members into believing that the dominant culture is superior. This perpetuates a cycle of internalized oppression that entrenches authority on humanness in the hands of the dominant group (Freire, 1970; 1971; 2000).

Neurodiversity

Introduction to the Model

Neurodiversity denotes the concept, often used by Autistic people, that people of differing neurological structure or function are equal in humanness and represent valuable diversity rather than pathological deviation from a societally constructed mainstream neurology (Glannon, 2007a, 2007b). Glannon relates this concept to “questions about whether or how they should be treated” (2007b, p. ii). This is apropos our discussion of the hazards of inculcating foreign norms into public health initiatives. In our case, this question of whether or how to treat is a question of whether or how to impose a health education initiative. Glannon provides a useful definition of two forms of the argument for neurodiversity, one specific to Autistic people, and one more general, the latter of which we take up here:

‘Neurodiversity’ usually appears in discussions of autism spectrum disorders and the view that individuals with these disorders have at least as much mental ability as disability. Their neurological and psychological traits form a unique and valued identity, which forces us to reconsider accepted models of “normal” and “abnormal” states of mind. Construed more broadly, however, neurodiversity can describe a wider range of conditions consisting of complex sets of traits and symptoms influenced by biological and environmental factors. (Glannon, 2007b, p. 1)

Ontological Status and Neurodiversity of Concussion

We argue that – within cultures which involve positive lifestyles that are also, at times, high in concussion risk – individuals affected neurologically by concussion should be considered neurologically diverse and not neurologically pathological. This argument may also be extended to read that we should see such a cultural group as neurologically diverse as a whole due to the spectrum of neurological diversity present within some of its members caused by cultural practices. However, the problem with the neurodiversity argument is that it rests on a distinction between genetically determined neurological states and states that result from environmental injury. This focus on genetics seems to exclude the possibility of using the neurodiversity argument to argue for the humanness of acquired brain injuries such as concussion. This becomes more apparent in the writing of some authors (Fenton & Krahn, 2007; Jaarsma & Welin, 2012) who argue for the civil rights of those with neurodevelopmental disorders based on the fact that they represent a genetic minority:

“Neurodiversity” is associated with the struggle for the civil rights of all those diagnosed with neurological or neurodevelopmental disorders. Two basic approaches in the struggle for what might be described as “neuro-equality” are taken up in the literature: (i) There is a challenge to current nosology that pathologizes all of the phenotypes associated with neurological or neurodevelopmental disorders (e.g., Autism Spectrum Disorder (ASD)); (ii) there is a challenge to those extant social institutions that either expressly or inadvertently model a social hierarchy where the interests or needs of individuals are ranked relative to what is regarded as properly functioning cognitive capacities. (Fenton & Krahn, 2007, p. 1)

We see two philosophical avenues along which to proceed with the neurodiversity argument. The argument can hold that groups with differing genetics of neurology represent different positions on what is the correct way of knowing (differing cognitive functioning can be seen to yield differing ways of knowing the world – epistemology) or differing positions on what is considered real (norms of what is real human neurology free from pathology – ontology). Examining these two candidate philosophical concepts for their potential to resolve conflicting perspectives between groups about concussion-related phenomena, we can see that the most popular different-ways-of-knowing (epistemology) option may be fruitful but does not solve the issue with neurodiversity being predicated on real and genetic differences – which is to say, ontological differences.

The weakness of the neurodiversity argument here is that it requires a group to have an ontological status of being a real and proper variation on what is an objective human nature. Genetic variation provides such ontological (real) status to the neurodiversity argument when applied to autism, but in the case of brain injury acquired through environmental experience (not from birth) this argument fails to apply. Along these lines one could argue that those with brain injuries (e.g., concussion) have departed from what is a real and objective human physical nature through an injury originating from outside the organism. It is true that the injury was real and physical, but this only supports the ontologically real status of the injury event and not the resulting condition, which is still seen as an aberration of real human nature.

While grounding the neurodiversity argument in genetic differences helps argue for these minorities’ civil rights, it does not seem that the genetic criterion is central to the argument that those of differing neurologies, of whatever cause, may be of equal-but-different functionality in ways relevant to humanness, personhood, and health. Therefore, one way to modify the theory for use with concussion

would be to strip the genetic requirement for the diversity criterion. However, this reduces the power of the argument as a public appeal, which is derived from the focus on an apparently *real kind* of neurology, casting genetically neurodiverse peoples as similar to other groups which have the public ethos of being genetically determined: that is, their group membership is not of their own doing, such as how one may see ethnic groups (not that ethnic groups are actually biologically determined). To be succinct: if it is genetic, then it seems valid because difference is *in the blood*, so to say. Yet an alternative approach seems possible which avoids the controversies and problematics of these kinds of biologically deterministic accounts.

Two Models

In the remainder of this paper we apply two models of ontology which rescue this neurodiversity of concussion argument by providing ways to see those with concussion as representing real and proper variations in physical human nature. First we will apply Blaser's (2009) variation of Latour (2007) and Agamben's (1998) political ontology; then we will contrast this with Rocha's (2015) folk phenomenology, which will give us an alternative way to understand the political realm within a fundamental ontology (Rowe & Rocha, 2015). There arises in this dialectic a central confusion around the sense of the phrase *multiple worlds*, which we will then explore.

Before we move into these two models, we should clarify one matter. The reader may protest that the two political ontology models presented below are meant to address the physical world and not differences in mental activity. We have two counter-arguments. First, political ontological talk presupposes a metaphysical stance toward analysis of perceptions of life and therefore psychological phenomena are not considered *a priori* less legitimate for study than experiences of a supposed external world. Indeed, Unamuno (1954) makes the point that the idea of the material world is simply as idealistic as that of the ideal world, ontologically speaking. Second, as has been illustrated with First Nations, the mind is one of the last fortresses against cultural imperialism, other forms of objective life being at times completely subjugated to dominant perspectives (e.g., Aboriginal Healing Foundation, 2006; Battiste, 1998; Oliver, 2004). Therefore, it is particularly important to address views of reality of the mind when dealing with intergroup conflicts, as is done in work with political ontology models (Blaser, 2009; Rowe & Rocha, 2015).

Blaser's Political Ontology

Major Influences and Arguments

Blaser (2009, 2014) builds an ontology based on a mixture of theory from anthropology and geography. From anthropology he takes the tradition of talking of multiple ontologies as meaning multiple worlds in which different cultural groups find their existence. From geography he takes the emerging concept of human life as extending to non-human animals and lands and the ongoing relationships between all of these, which produce the experienced world. He integrates these two insights to produce his conception of multiple worlds, each inhabited by more-than-just-humans interacting with the environment to produce each world.

Blaser's (2014) interest lies in developing an account of ontology that can help others understand indigeneity and so he is intimately concerned with the ontological status of traditional spiritual entities,

for example, as much as he is concerned with the relationship between traditional lives and those of dominant Western culture; he is seeking an account which can help others understand between-world contact and disputes with depth and fidelity. He analyzes intergroup conflicts in culturally imperial educational initiatives by applying this political ontology model to each party's activities, particularly as they interact between worlds. In his analysis, the interface between two worlds, and two political ontologies, can explain the particular moments of impasse in cultural miscommunication that cannot be accounted for simply by positing differing ideas about what is valid knowledge (epistemology).

To the above, Blaser (2009, 2014) also adds two moves. First, he conceives of ontology not as static, philosophic truth but rather as a tool for understanding ontological discussions between groups, which is to say, as heuristic. His second move is to focus on the performance of ontology by human actors in real time-and-place as properly ontological – again in contrast to a static, abstract ontological theory or theorizing. He uses this latter move to cast his own ontological theorizing as one ontological act among many, and by doing so he is trying to avoid a problem shared by all multiple-ontology systems, which he himself carefully notes. That is, a theory which supposes the presence of multiple ontologies is an ontology itself. The unfortunate consequence is that it then becomes an ontology of epistemologies due to there being really only one overall world involved, with the lower-level ontologies becoming necessarily only perspectives on this overall world. If such an ontology does not reduce other ontologies to epistemologies, it then necessarily remains some kind of absolute meta-ontology itself, performance notwithstanding. The problem Blaser has with a meta-ontology is that this negates the purpose of using ontology in service of indigeneity, which is expressly to avoid subtly hierarchical orders of worldviews that are characteristic of a typically modernist, Western, and patronizing account of multiculturalism. Blaser concludes by positing multiple worlds which are in contact with each other, semipermeable, or connected, through the communications and interactions of peoples, particularly through their performances of their ontologies.

Applied to Concussion Risk Cultures

We can apply Blaser's (2014) political ontology to the present context by using it as a model of what is real to connect with the requirement of realness of the neurodiversity argument. By this model, rural people from high-concussion-risk cultures enact stories of courage, work, and connection to land and animals in ways that produce the worlds they live in, and this enacted world interfaces with the dominant world and its enactments of medicalization and public safety of commodified bodies.

This model of political ontology provides a way to see the conflict between two culturally produced real worlds of normative, human neurological functioning (see Blaser, 2009). The first world under consideration is one that we suspect is implicitly imagined by some urban groups (see Morrongiello & Kane, 2015; for comparison see Little, 2015); such groups, we argue, hold a picture of the real human as one with supposedly intact and superior neurological functioning, and such groups believe they produce said real world through medical technology and public health education. The second world is a world imagined by rural groups who hold a view of real humanity as involving varying cognitive abilities according to both injury and opportunity for development, and that said injuries and opportunities are engendered through culturally-syntonic, active lifestyles. This contrary worldview represents both the authors' lived experiences as well as years of personal conversations along these lines with rural peoples.

In each case the world imagined is real in two senses: a weak sense, and a strong sense. The weak sense is that two different human groups interact with nature to produce two realities of humanness inasmuch as these groups can be said to occupy different locations from each other in space and time – but this is not really positing different worlds but rather two perspectives on a shared world in which

there are different areas. The strong sense is alluded to above, that for each group in conflict, there is a real humanness determined by interaction of that group with other entities within their own world, and that the two resulting entity-generated worlds (enacted ontologies) are what are seen to be in conflict in this political ontology paradigm (Blaser, 2009).

For example, a rural person may, in comparison to a perceived urban norm, believe they possess superior spatial and kinesthetic cognitive abilities while believing they have limited concentration due to a physically rough lifestyle; and that this state of neurological being is quite literally the objective and most real humanness. Critical here is the view of what is real human neurology, and the conflict in this paradigm is between groups who have differing experiences of what is real. This is corroborated by the authors' personal communications with people who have a history of multiple concussions in the context of rural cultures; they describe their culture as positive and their differential functioning, while having some downsides, as superior in other domains and, more importantly, as fundamentally real and human.

Using this political ontology framework allows us to sidestep the genetic distinction based on a nature-versus-pathology dichotomy involved in the neurodiversity argument. Conflicts between ontologies stem from different culturally-produced realities, and neurodiversity should legitimize different types of real humanness. The ontology of each group provides a real humanness and the neurodiversity argument then works as a conceptual bridge across the conflict between the two groups' ontologies (Blaser, 2009).

An important strength of this model (Blaser, 2014), possibly its signature strength considering its origin in indigeneity scholarship, is that it affords the non-dominant group dignity not just as equal in human worth and cultural value, but specifically dignity as having an independent intellectual tradition. In this model both parties have legitimate intellectual traditions and each of these traditions is built on its own ontology-in-performance. This account of the ontological status of rural culture supplies the neurodiversity argument with teeth to defend concussed bodies; in this account, rural people's norms of health and humanness include, as normal, a higher degree of concussion risk and this story of what is a real human is enacted in relationship with a world that produces a reality where this is indeed human nature. Neurodiversity then applies to this group, the reasoning as follows: as real difference in human nature, rural lives are a rightful category of diversity and should be afforded equal treatment and representation in the values of educational initiatives.

While we appreciate the motivations for such an elegant treatment of the problem of multiple ontologies, we remain concerned that the problem remains. We suspect that even an account of ontology as enacted stories in creative relationships with more-than-human worlds still cannot avoid the problems related to setting itself up as a meta-ontology.

Folk Phenomenology and Political Ontology

The typical way of talking about epistemology and ontology and culture in the social sciences, as conflicts occurring between epistemologies or between ontologies, is not typical of how philosophers use the terms 'epistemology' and 'ontology.' Indeed, it may be the case that there is only a familial resemblance between the usages. Philosophical usages of these terms refer to the study of knowledge and of being, both of which often find their way into philosophy of language, mind, and psychology. Here we are thinking of how to operationalize the term *ontology* in a way that leaves room for a fairly ordinary sense of how the term *political* operates (as related to questions of society, power, and so on). Blaser (2014), Agamben (1998), and other theorists rely on a complex tradition that has built an entire system out of political ontology as a whole, borrowing, in Agamben's case, from Schmitt's (2006) political theology and Foucault's (1978, 1990) genealogy. Using ontology in the more philosophical

sense we find in folk phenomenology, as we will see below, allows us to speak to the same shared reality. In either respect, we are not thinking of folk phenomenology as necessarily doing all the work here, but are seeing it, instead, as a way to clear the path forward in terms of the range of what political ontology refers to and can do in this paper and after.

This need not come off as antagonistic to the social sciences. Rather, it is a sense of ontology that has fewer burdens conceptually and in terms of the literature used. Namely, political ontology in this case creates an impression that ontology can be divided between interests. Rather, political ontology, across all of its meanings in philosophy and political theory, is usually understood as the fundamental essences or structures that are the necessary and sufficient conditions for the possibility of politics and that, in turn, show how foundations are always already invested in a political project. Social science's use of ontology gives the impression that there are multiple political ontologies. Now, none of this is to suggest that ontology or political ontology is monolithic, but it is to say that unless the systems of the political ontologists – Agamben (1998), Latour (2007), and others – are understood, it is hard to put them to any use whatsoever.

We will now advance folk phenomenology (Rocha, 2015) to politicize rural experiences. We will show that there is a good, preliminary reason to expect this ontological lens to offer some analytic clarity to what is at stake within the neurodiversity model, with the question of the cultural aspects of concussion as the guiding case study. The implication of this will be that there is a sense in which ways of existence (being a human person) and subsistence (ways of mind and consciousness) work to construct a political reality that weakens the idea that “harm is harm.”

Ontology in Folk Phenomenology

Folk phenomenology (Rocha, 2015) is a categorical approach to understanding reality, using a trinitarian lens that divides reality into Being, subsistence, and existence. Being refers to the world itself, and the conditions for that world; subsistence refers to the energetic, conceptual, and psychological things within the world of Being; existence refers to the material, perceptual, and physical things that subsist within the world of Being. The sum of these categorical parts is what folk phenomenology takes to the whole of ontology and the distinctions within that whole are the analytic ways of bringing the real into focus. The methodological work of focusing through reduction is traditional within phenomenology since at least Husserl's (1993) *epoche* or reduction, yet the most fundamental claim of this system is what makes it distinctly folk: “art precedes metaphysics” (Rocha, 2015, p. 5). In other words, folk phenomenology begins not with a philosophical account of the real but a pre-philosophical anthropology, what we might call pre-qualitative research. This is a notion of ontology where the craft of art, the making of things, the work of the hand and the heart are the foundation for persons in the world, and it is here where we also find the first sparks of a pre-political politics, rooted in the human person's subsistent ontological passions, as we will explore below.

The Pre-Political in a Folk Phenomenological Ontology

One of the classic issues with political assessments of ordinary life is that they are routinely over-determined in advance. For instance, when witnessing gross material inequality, there is little need for Marx and, indeed, few of the world's poor have heard of Marx or could read him. This is one cursory example, but it shows the problem of conceiving of politics within a life that has no place for the terms and theories of the political realm. It is into this exact problem that folk phenomenology locates an

ontological place for pre-political sentiments: the ontological passions, the desires for Being, subsistence, and existence. These passions are often expressed without knowing what they reveal, and the revelation is often negative – I am *not* this or that. Folk phenomenology (Rocha, 2015) locates these passions as a pre-linguistic and even pre-epistemological ontological foundation. These passions are not pre-political in terms of what they mean; they are pre-political in terms of what they are. It is here, in the ontological situation of the desires that constitute an inchoate and illiterate pre-political disposition, where politics emerge and spill into the more familiar and technical discourses we are accustomed to hearing and not hearing.

Folk Phenomenology and Rural Culture

To be deliberate, when we apply this notion of the pre-political to rural cultures and risky play, we see that the character of the lives and experiences of these peoples constitute fundamental, ontological, passionate, and pre-linguistic apprehension of what it is to be human in their contexts, and we see that this humanness is itself sufficiently real. This folk phenomenological pre-politics then offers us another avenue to arrive at the real-but-different physical humanness that forms a part of rural high-concussion-risk culture. Again, the neurodiversity argument picks up this ontologically valid difference in neurology and can then force recognition of rights of different-but-equally-human beings, particularly in educational initiatives.

Relationship with Object Oriented Ontology

The reader may ask how this theorizing relates to new materialism and object oriented ontology (Braidotti, 2013; Harman, 2002). What distinguishes our use of folk phenomenology is the divide between the ontic and the ontological, following Heidegger (1927/1962). The distinction between, and the analogical relationship between, the ontic and the ontological is separate from new materialism's reinvestment of material monism with emergence and other reinvigorations. For Heidegger, objects of study do not occupy places in the world in their own right, but are either world-less or experienced inside the world of an experiencing (ontological) being. This radically differs from an ontology based first on the objective and independent worldliness of material and then secondarily expands the nature of this worldliness to apprehend subjectivity (McHoul, 1999).

With respect to object oriented ontology, we are not talking about being as an expanded set of properties of matter. Quite the opposite, matter takes its worldliness through its being experienced. These alignments and non-alignments bracket our work here with reference to the classical tradition of Heidegger. Harman's (2002) interpretation of Heidegger around the singularity of objects, which would be more compatible with new materialism, is not convincing to us; we instead follow Marion's (1997/2002) tradition of developing Heidegger towards the anterior relation of givenness to Being, which very much confirms what we feel to be clear in Heidegger: that the ontic receives its particular instantiation and relevance in its particularity through the generality of the ontological being.

Heidegger and Indigenous Philosophy

Digging into Heidegger, Hegel, and Indigenous thought, we can add complexity to the distinction between the social science apprehension of multiple ontologies and the philosophical project of defining

a single, shared metaphysics. Blaser (2014) discusses multiple ontologies between Indigenous and non-Indigenous groups; but if we look at Indigenous writing on ontology, for instance Brayboy and Maughn's (2009), we see a picture that shares a key similarity to Hegel (1807/1979): Indigenous and non-Indigenous people both inhabiting a Hegelian, intersecting multi-realm/multi-dimensional reality. Let us call this a *manifold metaphysics*, as opposed to multiple, manifold cultures as described by McHoul (1999; Heidegger, 1927/1962). While McHoul does a good job of treating the existential being of culture (although not as transcendently as Hegel, 1807/1979), its focus is on culture more generally whereas the present analysis focuses on cultures' metaphysical claims themselves.

We then can make distinctions between the soft, hard, and manifold uses of the phrase *multiple realities* or *multiple worlds*. The soft version of multiple worlds is a typical social science account which says: what different social groups think are separate realities are actually socially and cognitively constructed mental accounts of worldview (all of which occurs within some specified or unspecified reality). We reject this account because it is not metaphysical but sociological or anthropological, and as such does not engage with groups' metaphysical claims *qua* metaphysical claims. The hard version of multiple worlds, in dispute here, is the idea that different social groups actually inhabit separated realities, yielding a radical relativism. Here we are arguing that Blaser's (2014) heterogeneous assemblages resembles the hard version, even though it suggests the possibility of intercontact (Blaser, 2009). We reject this hard version due to the meta-ontology trap noted above. Finally, the manifold version indicates a truly manifold metaphysics: one shared reality in which there are multiple intersecting Heideggerian (1927/1962) or Hegelian (1807/1979) realms. This is a single ontological frame of reality where the whole is filled with parts that flux and create multiples. We argue that folk phenomenology's trinitarian lenses better reconciles itself to this manifold metaphysics.

When Indigenous authors use the phrase multiple worlds (e.g., Duran et al., 2008), it may sound like the hard version of the social science position that falls into the meta-ontology trap (see Blaser, 2014). As a correction, Brayboy and Maughn (2009), for instance, are not talking about multiple, entire metaphysical realities but *intersecting* realms, as does Hegel (1807/1979). Although Brayboy and Maughn describe one realm as physical and others as metaphysical, we can see that this sense of metaphysical is different from the present philosophical sense of metaphysical as denoting the overarching single frame. Even Heidegger's (1927/1962) language of worlds, realms, and ontologies fits well with Brayboy and Maughn's account by our reading (other problematics of Heidegger's ontology for Indigeneity aside, e.g., human-centered equipmental totalities). Ahenakew (2014) also uses the phrase "multi-layered realms of reality" (p. 154), which maps well onto this account.

To paraphrase Heidegger's (1927/1962) introduction to *Being and Time*, we can distinguish between senses of the word *world* as denoting: 1) a plain collection of present entities; 2) any ontological "realm which encompasses a multiplicity of entities: . . . such as the realm of possible objects of mathematics" (p. 65); 3) existential environment; and 4) worldhood which has such worlds "as its modes" (p. 65). While bewildering, we are arguing that the soft version of multiple worlds is derived from sense 1 (*plain collections*); that the hard version is inconsistent due to meta-ontological problems; and that the manifold version comprises a manifold of sense 2 (*realms*), which are experienced through sense 3 (*existential environments*). Add to this Brayboy and Maughn's (2009) denotation of some realms as spiritual in addition to the material realm and we have a useful account here.

This helps distinguish between two types of Indigenous discourse on ontology. The first is the way some Indigenous authors describe their reality as having multiple metaphysical layers intersecting to produce the encountered world (Blondin, 2006; Brayboy & Maughn, 2009, Deloria, 1999; Marker, 2017) – we argue this discourse can be described by the manifold ontology above. The second is the way of talking about "walking in two worlds" (Henze & Vanett, 1993, p. 116), the Indigenous world and the White world (Duran et al., 2008; Maracle, 1994). When talking of walking in two worlds, some authors

may mean the soft version of multiple worlds and other authors may for rhetorical purposes suggest the hard version, but we argue that they actually mean the manifold version. When stressing the differences between Indigenous and White worlds these authors may be, in effect, stressing the relative participations of Indigenous and White peoples in the various spiritual and material levels of one manifold reality; or in Heideggerian terms, existentially inhabiting multiple realms to different degrees within one metaphysics. Note that while engaging in a dialogue between these Western and Indigenous authors and terminologies, we are not attempting to set up a hierarchy of dominance of Western categories as more legitimate *a priori*. Rather we are attempting to foster a mutual understanding that might be mutually clarifying.

Still, some may misunderstand Indigenous epistemological pluralism (Ahenakew, 2014) as suggesting something other than an engagement with a common reality and argue that it implies an absolute situation of multiple realities. This, we argue, arises from othering Indigenous intellectual traditions. Within Euro-American intellectual tradition, we are comfortable with multiple figures providing different accounts of a single true reality. Heidegger (1927/1962) calls these ontologies (still as directed towards the one, shared metaphysical frame). Within Indigenous intellectual traditions it may be the same, that there are multiple theorists of a single reality (which is itself manifold); but it may appear to outside observers that Indigenous intellectual traditions posit multiple realities because they include multiple voices.

With this manifold ontology established we can better make sense of Indigenous authors' descriptions of local ontologies of human-ecological knowledges particular to place and landscape (Brayboy & Maughn, 2009; Marker, 2017, 2006). Within this preliminary frame, we can see unique characteristics of reality arising from relationship with landscapes as representing instances of intersection of multiple metaphysical realms, within a single, overall, manifold reality that explains the contact, coincidence, sharing between, and collision of such local worlds (Deloria, 1999; Kawagley & Barnhardt, 1998).

All this is not to disregard the problematics of Heideggerian and Hegelian philosophies for Indigenous thought. While we are excited about the connections, we are not suggesting ignorance of these European thinkers' arguably overdetermined language systems (Ahenakew, 2014), messianism, humanistic equipmentality, or developmental theories of culture that sideline Indigeneity as primitive (Grande, 2008; Smith, 2012). Nonetheless, if they help us think through these difficult ontological concerns, then possibly we can learn what is useful from them. One way we can employ this analysis is to explain how folk phenomenology appreciates the politics involved in multiple groups' conflicting ontologies by taking these as actual metaphysical claims to a shared world – that is, taken in the above sense of one metaphysical frame housing manifold subsistent realms, and of particular landscapes of metaphysically complex existence within intersections of these realms. This results in a political ontology of a single metaphysical frame which nevertheless retains a multidimensional and intersectional notion of realms.

Strengths and Weaknesses

We like Blaser's (2009, 2014) work because it provides an avenue for dignifying rural intellectual traditions qua intellectual traditions, not just as intuitive, embodied modes of being but also as sophisticated analytical traditions of their own. In comparison, folk phenomenological political ontology may only advance the dignity of rural peoples as pre-intellectual, feeling, and embodied; or there is the risk of our work being perceived this way (see also Rocha, 2015). The folkloric reversal being oriented slightly towards the non-intellectual begs the question: how do we conceptualize an intellectual

dimension of a folk phenomenological model of political ontology? We are not wedded to a treatment of rural peoples as always and necessarily intellectual (see Neisser et al., 1996), but it is a point worth considering, to avoid the perception of over-romanticizing rural people or downplaying the extent to which their lives are intellectual.

One response to this challenge is to take up Heidegger's (1927/1962) concept of *dasein*, referring to the mode of being that is able to reflect on questions of being (such as ourselves). *Dasein* is the way of being that is oriented towards understanding its own being through phenomenological study of ontology in a primarily experiential way. This may not be the equivalent of what is typically seen as intelligence according to a normative, cognitive functioning account from mainstream psychology. Yet it provides a Heideggerian avenue through which to draw attention to the sufficient and sovereign humanity of rural peoples without identifying this with a psychologistic (Giorgi, 1981) sense of intelligence, which may or may not be found in general among rural peoples, but which under the present account does not define sovereignty. We are not interested in a conception of intelligence which is drawn from a traditional subject-object dichotomy with representation being the mode of thought (McHoul, 1999). Rather, we are interested in a conception of intelligence as arising from experience and the study of being through experience (see also Ahenakew, 2014). We further argue that such a non-psychologistic, non-representational account may be more likely to survive rural peoples' own counter-imperial skepticism of urban intellectualism.

In this vein, Du Bois (1994), in the last chapter of *The Souls of Black Folks* provides a sense of such a non-psychologistic intellectual sovereignty from a perspective that is not explicitly derived from the continental philosophical tradition. This provides a good touchstone to convey our alignments in North America. On another note, regardless of which model of political ontology is used with the neurodiversity argument, if we focus on a neoliberal conception of a free subject to argue for inalienable rights (in this iteration, rights of an ontologically/physiologically diverse group) to fair treatment in educational initiatives, there is still much we would miss. This does not bring us to an appreciation of the things themselves (Husserl, 2001) of the rural life. Folk phenomenology brings the appreciation of lived reality of rural life as ontologically valid, while adding a critique of social science's use of ontology, as well as of commodification of the subject by imperial education and medicalization (Illich, 2001; Rocha, 2015).

A Balanced Perspective

Our explorations here into political ontology can help provide a balanced perspective between dignifying concussion-risk rural culture and liberating peoples from other oppressive concussion-risk contexts (e.g., profiteering unsafe labour practices, possibly US football, material exploitation of First Nations). Such a balancing between avoidance of genuine hazard and avoidance of unnecessary caution is expressed by Little: "Whilst inappropriately designed and poorly maintained play equipment represents a genuine hazard for children, a growing risk aversion within society has seen many childhood activities curtailed with an emphasis on providing safe environments for children where all risks are removed" (Little, 2015, pp. 24–25). We also agree with Gleason (2017):

I do not deny that children are vulnerable to harm, exploitation, and abuse. . . . History shows us, however, that social norms regarding vulnerable children were shaped largely by adults and gave rise to a complex set of effects that were not always positive or altruistic. This complexity bears on how we understand claims of child protection. (p. 42)

We want to build on this balance by deepening the concern around the cultural imperialism of safety education initiatives. Thus, we should attempt to balance the interests of preventing harm from concussion with the risk of cultural imperialism, and indeed, the benefits of counter-generalizing norms from a marginalized cultural voice back to a dominant culture.

To be clear, one should first bear in mind the situations in which peoples may be liberated from oppressive conditions through medicalized public health education (possibly some young athlete groups), and also situations where non-dominant groups may be interested in taking on said education for their own interests. These represent non-imperial educational events, whereas the following applies to events outside these bounds in which more caution is warranted (Freire, 1970).

To speak broadly, one should be on guard for cultural imperialism by detecting when one is pursuing education of another group using dominant perspectives which are at odds with the other culture's intellectual traditions, values, experiences, and ontological passions. This implies that one will be prudent in investigating these aspects of their lives. The political ontology models we have discussed require public health educators to attend to differing ideas of what is real and how these ideas operate at a fundamental level in the thinking of each party.

Neurodiversity, grounded on these political ontology models, provides the argument that different groups of real humans should be afforded equal status as thinking-and-being agents and subjects along with their traditions and realities of humanhood. In the case of concussion, reduction efforts should first consider the perspectives of the target groups on an equal footing and with appreciation of the philosophical and pre-linguistic passionate metaphysics and experiences informing these perspectives (Blaser, 2014; Freire, 1971; Illich, 2001; Rocha, 2015). While the general trajectory of phenomenology across the three reductions of Husserl, Heidegger, and Marion shows the nature of reality as a gesture of disclosure to us as objects, beings, or givenness, folk phenomenology (Rocha, 2015) takes this offering a second step in applying it to teaching, arguing that education – in its best moments – shows us what reality offers and our passions for Being. Teaching as a showing of reality and a showing of our passions for Being is an offer that is available to the learner even if the offer is not received.

Finally, one should consider, in the process of generalizing a model of humanness to another group, whether this group's model of humanness has elements which would benefit one's own group. For instance, it remains to be shown that ceasing participation in all activities with higher concussion risk that are seen in a rural lifestyle would actually lead to increased cognitive functioning, and it may well be that adding some of these risky activities to an urban lifestyle would increase some domains of cognitive functioning (see Little, 2015). It is an empirical question open to future research, but also an attitude towards intergroup relationships that is less imperial (Freire, 1970).

Notes

1. Our approach to ontology may seem, at first glance, to demand consideration of posthuman, new materialist, and object oriented ontological writings, but this would be an incompatible framework, as we will explain, to our approach to ontology. For more see: Rocha's (2017) essay in *The Queen's Education Letter*, summer 2017, "Theological Posthumanism and Atheistic Education."
2. For more on risk from a slightly different perspective, the reader is referred to the work of Gershon (2012) who presses at risky-ness through Ranciere.

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