

Reconnecting the Wisdom Within ©

Developing Cultural Sensitivity in the 21st Century



Seeds of Native Health
A Campaign for Indigenous Nutrition

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Preface

“Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?”

— T.S. Eliot

As I write these words from my St. Paul office at the University of Minnesota, Twin Cities, I sit amidst the homelands of the Dakota People² upon land that remains contested. The terms of the 1805 “Treaty”, originated by Zebulon Pike, leading to the construction of Fort Snelling and later, the emergence of the Twin Cities metropolis, were never fulfilled. The 1863 Acts of Congress that banished all Dakota Peoples from their homelands and seized the land where my office sits today are without legal foundation under both international and domestic law³. These congressional actions taken in 1863 represent acts of colonization, imperialism and ethnic cleansing that ultimately are traceable to and rooted within Doctrine of Christian Discovery⁴. This undiscussed history remains largely invisible to the vast majority of residents of this land, even within the campuses of its publicly funded, Land-grant research university.

I ask myself: “What are the moral implications of this obscure history for an academic professor in Food Science & Nutrition at the University of Minnesota?” Each morning that I unlock the door, step into my office, turn on my computer and begin my day’s work, I sit squarely and directly upon historical and cultural injustice, systemically erased so that today I may pursue my academic interests in an unencumbered fashion. I remind myself of our meritocracy; of its over-riding push toward achievement that effectively displaces this history into the background of consciousness. Ongoing patterns of academic work disconnect us from this historical context, creating amnesia, even as Indigenous Peoples continue to speak of their historical trauma and how it relates to contemporary

² *Minnesota* comes from the Dakota name for this region, *Mni Sota Maȋoce*--the land where the waters reflect the skies. The land of The University of Minnesota--Twin Cities was appropriated through a treaty drafted in 1805 but never proclaimed by the US President, nor its terms ever fulfilled. <http://digital.library.okstate.edu/kappler/Vol2/treaties/sio1031.htm>

³ Vogel, H.J. (2013) U.S. Dakota War of 1862: Rethinking the effect of the abrogation of Dakota treaties and the authority for the removal of the Dakota People from their homeland. *Wm. Mitchell Law Review* 39: 538-581.

⁴ *Ibid.* p 542.

diets. Yet work patterns represent conditioned, accepted habits of mind. We can consciously choose to examine and transform our mental habits for the better.

For me, this reality comes with a responsibility to make visible our amnesia, to better understand this difficult history and to gain greater awareness of our colonizing role; from the land we walk and work upon, to the mental patterns we hold and teach, to the young minds we hope to influence. If I make the effort to look deeper within my mind, I find patterns of thought and habits of mind that sustain cognitive erasure and injustice. My work is to transform these patterns, first within myself, so that I may teach our future professionals a responsibility to do likewise.

This publication is dedicated to the idea that education holds much power to elevate and evolve our thinking, to create greater cultural awareness and sensitivity that may lead to a more promising future.

Introduction: Problems + Preparation = Promise

The *Seeds of Native Health* Campaign has chosen a deliberate strategy of reaching out to the agriculture, food, nutrition and public health disciplines to join in the work of solving the dietary health crisis in Indian Country. This strategy holds much promise. As professionals in these disciplines, we are in possession of powerful tools that can be of significant assistance in the work of improving Indigenous Peoples nutrition. But life is seldom straight forward. This strategy holds promise only if professionals are able to:

- 1) Gain awareness of problems that have escaped our past attention;
- 2) Prepare ourselves in ways that we have historically neglected.

Healthful measures of deliberation and care are needed. Deliberation is needed because while significant cultural differences between Western/Eurocentric and Indigenous conceptions of the world have always existed, most academic disciplines have not developed strategies or methodologies that might effectively interface and bridge these cultural differences. Care is needed because these intercultural dynamics are further complicated by a difficult history of colonization.

Many cultural differences have to do with systems of thought, ways of knowing, understanding and living in the world. A major problem here is that most of us as academic professionals were trained to see and represent our disciplines as holding universal truths. We seldom recognize the truths and knowledge held by Indigenous Peoples. We seldom, if ever, represent our disciplines or position our expertise as cultural constructions. We seldom position our academic knowledge alongside what Indigenous Peoples might have to offer:

“A problem with Western Science, that is inherently its own problem, is that in so many ways in its quest for excellence, it makes the mistake of running over or not noticing what other people may have to contribute, in its effort to not only to do ‘good research’, but also to protect what scientists feel is the integrity of the scientific process.”⁵

⁵ Schultz, Paul. People protecting manoomin: Manoomin protecting people. Symposium held at White Earth Nation, Mahnomen, MN, 2009.

Why might commitments to protecting scientific integrity or doing good research also serve to negate Indigenous knowledge systems? This question is especially significant when it comes to the work of creating knowledge to improve health. Most academic disciplines exhibit a well-demonstrated history and impulse for imposing our thought and knowledge upon other cultural communities. We term such impositions “education” and “intervention”. We justify our efforts through academic expertise, the authority of Euro/Western knowledge and its evidence base. We speak of our “target” audience, often implying a transactional relationship where the goal is for recipients to accept our education and/or change behavior in accordance with our well-intended programs. While such approaches can hold value, they are partial, short-sighted and too often bring presumptions of cultural superiority and cultural hierarchy.

If we see our academic disciplines as the only significant knowledge resource, we have little reason to seriously explore and examine what people without academic degrees or certification have to offer. Trained to see our disciplinary knowledge as holding universal truth, we carry the expectation that other cultures will (or should) submit to it. We set ourselves up as professionals to overlook or dismiss knowledge resources that are culturally different from our own. We do not prepare ourselves to explore indigenous knowledge resources on their own terms. We are disinclined to imagine Indigenous knowledge and academic knowledge interacting on equal footing, each contributing to solutions. Lacking such capacity, our tendency is to neglect or negate Indigenous ways of knowing rather than to develop processes to navigate or interface. In my own exploration of this deep-seated tendency to negate Indigenous knowledge systems, I have found that I must take a critically reflective look beneath the surface of my own training, my practice and my disciplinary mindset.

For Indigenous Peoples, health is inescapably interwoven with history, culture and knowledge derived from lived experience. Too often, the goals of professionals looking to educate or intervene lack sufficient attention to understanding the nuances of an interwoven, more holistic and participatory way of understanding the world. Too often, formal education and interventions designed by non-Indigenous professionals fail to acknowledge and invest in the necessary developmental work: building long-term relationships that are needed to sufficiently understand and appreciate cultural differences that many times bring together conflicting or contradictory values and worldviews. As professionals, our training prepares us to walk and work within our disciplinary world. We are seldom prepared to walk and work effectively within an Indigenous world. We are

often left with the presumption that good professional practice will work regardless of context. In this sense and manner of speaking, we are culturally myopic.

As a result, we find ourselves ill-equipped to develop strategies and methods to effectively interface different worldviews and bridge cultural differences. As professionals, we now lack support for developing the cultural sensitivity needed to appropriately engage Indigenous Peoples well in advance of designing curricula or intervention programs. Absent such preparation and community engagement, our impulse is to conform to accepted professionalized patterns that, from a cultural perspective, represent a unilateral approach to framing problems, deciding what knowledge is important and which possibilities hold promise as workable solutions. From an Indigenous Peoples perspective, such approaches are seen as monocultural and easily become experienced as unwelcome intrusion, even as continuation of deeply entrenched patterns of colonization.

Most educational and intervention projects are designed by non-Indigenous academic professionals using Eurocentric systems of thought originating outside of Indigenous cultural contexts. The constellation of implicit, background assumptions we carry as trained professionals into an intercultural context remains largely unexamined, setting the stage for cultural collision and misunderstanding. Agriculture, food, nutrition and public health disciplines have yet to invest in developing strategies and methods to collectively overcome our cultural myopia. Our myopia consists of two principal dimensions:

- 1) Lack of capacity to recognize the cultural values, priorities and background assumptions that we carry with us into the cultural interaction. These “hidden subjectivities” are often entwined and conflated with concepts of “good scientific practice”.
- 2) Lack of capacity to better recognize and appreciate the systems of thought, knowledge resources and value outlooks that Indigenous Peoples hold and use.

When we see our own practice as transcending or otherwise escaping culture, we are at high risk for generating intercultural misunderstandings. As one Indigenous elder commented:

“When you start off thinking that somehow you are dealing with people who are less gifted, less intelligent, less informed, you are due to make mistakes of gigantic dimension. And this is what we’ve been up against for

*quite some time”.*⁶

Until quite recently, funding agencies have seen little reason or need to support investment in overcoming cultural myopia. This includes support for the process of developing ongoing, respectful, interpersonal relationships with Indigenous Peoples. Implicit in designing, reviewing and funding academic projects has been the presumption that relationships built on a transactional level will suffice in taking care of business. A mainstream cultural outlook emphasizing successful and efficient task completion often assumes that developing the relations needed to achieve proposed goals and outcomes is relatively straight-forward and unproblematic. This outlook is short-sighted. Positive, long-term intercultural relationships built on mutual trust and reciprocity are essential for developing broader cultural awareness and deeper cultural consciousness.

Euro-Western commitments to maintaining objectivity often reinforce a more distant, transactional relationship between professionals and their “target” communities. From this standpoint, professional relationships are not to become personal, lest we risk subjective bias infiltrating an objective, impartial stance. Seldom is such a stance and commitment seen or considered as cultural in itself. Yet in the case of Indigenous Peoples, we are dealing with complex and often conflicting cultural differences in their systems of thought and ways of living in the world. Developing the sensitivity needed to recognize and navigate these cultural differences is a developmental process often undervalued and overlooked within agriculture, food, nutrition and health professions.

Absent such investment, well-intended projects, even those offering useful tools, can be experienced by Indigenous Peoples as unwelcome imposition and arrogant or harmful intrusion. The perception of arrogance stems from professionals carrying unexamined assumptions of cultural superiority into the interaction. The harm comes from failure to recognize and appreciate Indigenous knowledge and cultural resources. Further fragmentation and erosion of neglected Indigenous knowledge systems often results. In these ways, even well intended education and intervention are often experienced as acts of colonization.

Contributing to these difficulties, the spectrum of sciences relevant to the work of improving Indigenous Peoples nutrition have not developed their collective capacity to recognize, explore, interrogate and appreciate their own Euro/Western cultural foundations. Such professional discourse is virtually absent

⁶ Hassel, C. Decolonizing nutrition science. Submitted to: *Current Developments in Nutrition*, 2018.

in agriculture, food and nutrition disciplines. With the advent of specialization and sub-specialization, contemplation of cultural and philosophical foundations were long ago relegated to humanities and social science disciplines. As professionals, our capacity for cultural self-study has collectively atrophied through abandonment. Lacking the means to bring cultural insight, sensitivity and understanding to ourselves, we are set up to carry with us a superficial and imbalanced appreciation for what Indigenous cultures might have to offer.

When we, as professionals, impose our knowledge and its solutions upon another culture without sufficient regard for the complexities inherent in navigating cultural differences, the damaging and unintended consequences often experienced by Indigenous communities are essentially invisible to those of us who work largely within mainstream circles. As we struggle to recognize Indigenous knowledge resources that lie beyond the boundaries of our Euro-Western worldviews, we become blind to the repercussions of our efforts as experienced within these contexts. Our myopia is attributable in large part to atrophy of our cultural sensitivities. Lacking sufficient attention to these matters, we have become blind to our own myopia.

Care is needed because these intercultural dynamics are greatly complicated by our difficult history. We live amidst a highly racialized society, one founded upon an unresolved and highly unjust history of colonization, imperialism, genocide and slavery⁷. This violent history is often erased from our consciousness as it represents difficult and painful truths. Yet it carries forward profoundly different, even conflicting and contradictory cultural experiences that cripple hurried and superficial attempts at coming to any substantive sense of intercultural understanding or interaction. The brutality of this history, this “original sin” of colonization is one with which we have yet to fully confront, acknowledge and come to terms, let alone begin to substantively reconcile. This unresolved history continues to echo throughout our mainstream culture and our academic institutions. A quote by William Faulkner comes to mind - “*The past is never dead - it’s not even past.*” For the cultural groups most disaffected, these echoes are loud, painful and ever-present experiences. For many of us within food and nutrition-related disciplines, the echoes are difficult to sense or even fathom without the investment needed to develop a greater measure of cultural sensitivity. In short, we are ill-equipped to recognize the echoes of colonization still embedded within our patterns of disciplinary thought.

⁷ Zinn, H. *A People’s History of the United States. 1492-Present.* HarperCollins, New York; 2003.

The question below, appearing in a recent *Seeds of Native Health* report “Fertile Ground II”, makes this point very well:

“Why has a people with an extraordinarily large land base, cultural tradition that values community engagement and personal health, heritage of self-sufficiency, and history of effective self-governance come to find themselves with inarguably the poorest health, diminished life expectancy, crippled economy, inadequate access to healthy foods, and minimized control over their land and other critical assets?”⁸

This question has been too often missed within the increasingly narrow and specialized sub-disciplines of agriculture, nutrition and public health. Well-intentioned commitments to scientific objectivity often compels investigators to exclude broader cultural context as tangential to inquiry. Research strategies often approach problems such as diabetes, obesity and poor nutrition as narrower technical questions dissociated from historical and cultural context. The philosopher Hugh Lacey refers to this process of detaching or dissociating phenomena from their broader context as “decontextualizing strategies”⁹. He argues that the modern scientific tradition privileges decontextualizing strategies, employing them almost exclusively. According to Lacey, the principal role of a methodological strategy is to constrain the kinds of hypotheses and theories that may be entertained by a research project. Absent the impetus to shift some attention to historical or philosophical context, as professionals we risk seeing our everyday work as largely disconnected from our North American history and culture. Our sensitivity to cultural context goes underdeveloped.

If we internalize patterns of disconnection and separation, we become ill-equipped to understand or even recognize the cultural grounding of our training or the history that our professions represent. Too often, we remain unprepared to recognize and understand the history and culture we collectively carry into our interactions with Indigenous communities. Our tendency is to see ourselves as individuals, disconnected from the history of our People or any collective sense of Peoplehood, for that matter. But in many cases, just as we see ourselves stepping into an Indigenous community as a separate individual, we are seen as representatives of a continuing and ongoing relationship between Peoples, interconnected with a history that is very much alive and present - even within

⁸ *Fertile Ground II, Growing the Seeds of Native American Health*, SMSC, Prior Lake, MN, 2016, p.14.

⁹ Lacey, H. (2005). *Values and objectivity in science*. Lanham, MD: Lexington Books.

our own thought patterns!

We find an excellent response to the question above in the *Seeds of Native Health* report *Feeding Ourselves*:

"The loss of Native American lands and purposeful destruction of Native cultures is ink on the fabric of American history. Now-repudiated federal policies that forcibly separated Native peoples from our historical lands and traditional sources of food are manifesting in our bodies today. Separation from healthy foods has been one of the most pernicious health problems we endure. The epidemics of obesity and diabetes in Native communities, even among our children, are direct consequences of limited access to healthy food. In many tribal communities, poverty, inequality, the lack of access to capital, and myriad and complex bureaucratic barriers undermine our current capacities to reestablish strong and vibrant Indian Country food systems".¹⁰

Our agriculture, food, nutrition and public health disciplines are woven into the fabric of American history, as are we all. But our commitments to objectivity work to disconnect us from this fabric of history. Approaching problems of food and health restricted to biological, physiochemical, even behavioral realms often "brackets out" historical and cultural interaction. Our methods position us as neutral observers external to the fabric in which we are interwoven. Commitments to objectivity, fruitful as they have been, detach us as passive observers, rather than connect us as active participants in the fabric of history.

Today's health inequities have causes rooted in the difficult truths of our history and intercultural interactions¹¹. Indigenous Peoples have attempted and continue to tell us that framing these problems in technical, biological and behavioral terms without connection to broader historical and cultural contexts in which they arise is partial and incomplete¹². A decontextualized focus on molecular composition, metabolism and individual behaviors can leave histories of colonization overlooked as tangential or irrelevant, leading to solutions that may

¹⁰ **Feeding Ourselves.** Food Access, Health Disparities, and the Pathways to Healthy Native American Communities. SMSC, Prior Lake MN, 2015, p 10.

¹¹ Advancing Health Equities in Minnesota: *A Report to the Legislature*, Feb 1 2014.

http://www.health.state.mn.us/divs/chs/healthequity/ahe_leg_report_020114.pdf

¹² Conference Report. First Annual Conference on Native American Nutrition. SMSC and U of M HFHL Institute, Prior Lake, MN, September, 2016.

be technically reliable yet culturally unworkable. A material and reductionist focus could become more suitable if strategies and methods are developed to re-connect proposed technical approaches to larger cultural and historical contexts.

The difficult truths of our greater context must be recognized, acknowledged and accommodated if we are to work together, bridging cultural differences, as envisioned by the *Seeds of Native Health* campaign. The question becomes this:

Are we, as academic professionals, willing to expand our conscious awareness and transform our perspectives, strategies and methodologies, both individually and collectively, as part of the work of improving Indigenous Peoples nutrition?

My own experience immersed in cross-cultural engagement work over the past 25 years leaves me to believe that such transformation is certainly possible. Further, I see this work as fully consistent with the larger, ongoing trajectory of how science advances, evolves and improves, without any threat or loss of substance to existing forms of inquiry. There is always a place for mechanistic, reductionist forms of inquiry; such inquiry can be made more culturally relevant by developing contextualizing strategies. Include and also move beyond. In the case of bridging Euro-Western and Indigenous Peoples knowledge systems, some aspects of conventional scientific thought will come under challenge. Here, it may be helpful to elaborate briefly from my own experience.

For me, personal relationships with Indigenous Peoples who continue to carry their traditional culture creates an experience that feels quite different from the experience of interacting with most of my professional colleagues. I am dealing with people who bring significantly different ways of seeing and understanding the world. My academic expertise is not sufficient, nor in some cases even relevant, if I am not able to demonstrate a human-to-human relationship of mutual caring, respect, reciprocity, honesty and integrity. To the extent that I allow myself to openly imagine and enter into different ways of seeing, understanding and experiencing the world, my intercultural experience becomes significant. Through mindful critical reflection, dim light reflects upon itself and becomes brighter light.

In this way, my world expands as I slowly develop a sensitivity for a culturally different way of thinking. Being a “newby” in this system of thought brings feeling of vulnerability, of not knowing, yet helps me to expand the boundaries of my conscious awareness. I can begin to inhabit a world where food is less about

its molecular composition or an object for human manipulation; food is more about intimate relationships with place, nature and people, symbolic of sovereignty and identity, connection, healing and medicine.

Over time and with much persistence, I slowly gain the capacity to better construct an experience that aligns more closely with the coherence of culture that is carried by my Indigenous mentors or the community with whom I work. I become more sensitive to cultural nuance and complexity. I can begin to see and comprehend what had previously been invisible or incomprehensible. These insights push the boundaries of my professional training. I feel resistance as I stretch to accommodate this new-found awareness. Contradictions arise. Conforming to sanctioned methodologies does not allow accommodation of newly experienced relational realities. A culture of material realities, predictability, efficacy and conformity confronts a culture acknowledging spiritual realities, fluidity and organic aliveness, seeking liberation through knowledge production. A culture valuing active intervention confronts a culture valuing non-interference. I begin to understand, in contrast to what my training has led me to believe, that our professions and institutions of higher education have always represented cultural constructions.

Unlike many academic approaches, my own experience in community and cross-cultural engagement represents the starting point for my scholarship and teaching, as well as for this publication. Consistent with my own experience, agriculture, food, nutrition and public health disciplines still lack strategies, methodologies and pedagogies to develop capacity for engaging, interfacing and bridging Indigenous Peoples systems of thought. Openness to what Indigenous Peoples might have to offer is still largely missing from professional training.

Somewhat ironically, moving forward at this point requires stepping back. I must step back far enough to examine the foundational tenets and values - often implicitly embedded - within the scientific practice of my training. Intercultural work that engages culturally different knowledge systems creates what I term “tensions of epistemology”. Colliding with commitments to objectivity and parameters of established disciplinary norms is difficult work, as these commitments represent the professionally shared and accepted mental models of how the world works. Paradigms exert a deep hold on the scientific mind; a powerful influence to think of and perceive issues in one way rather than

another¹³. Yet developmental paths that challenge accepted paradigms are being developed in this regard. Shifting embedded patterns of thought is developmental work that will require critical reflection, effective, strategic and well-grounded methodologies.

“**Reconnecting the Wisdom Within**” represents another small step on this lengthy developmental path. I begin by describing some of my experience with the Woodlands Wisdom project. As in much of my work, experience represents the lead. I then critically and mindfully reflect upon my experience and backfill with theory that best characterizes the experience, based upon critical reflection. In essence, the inquiry process is “flipped” from more customary academic approaches.

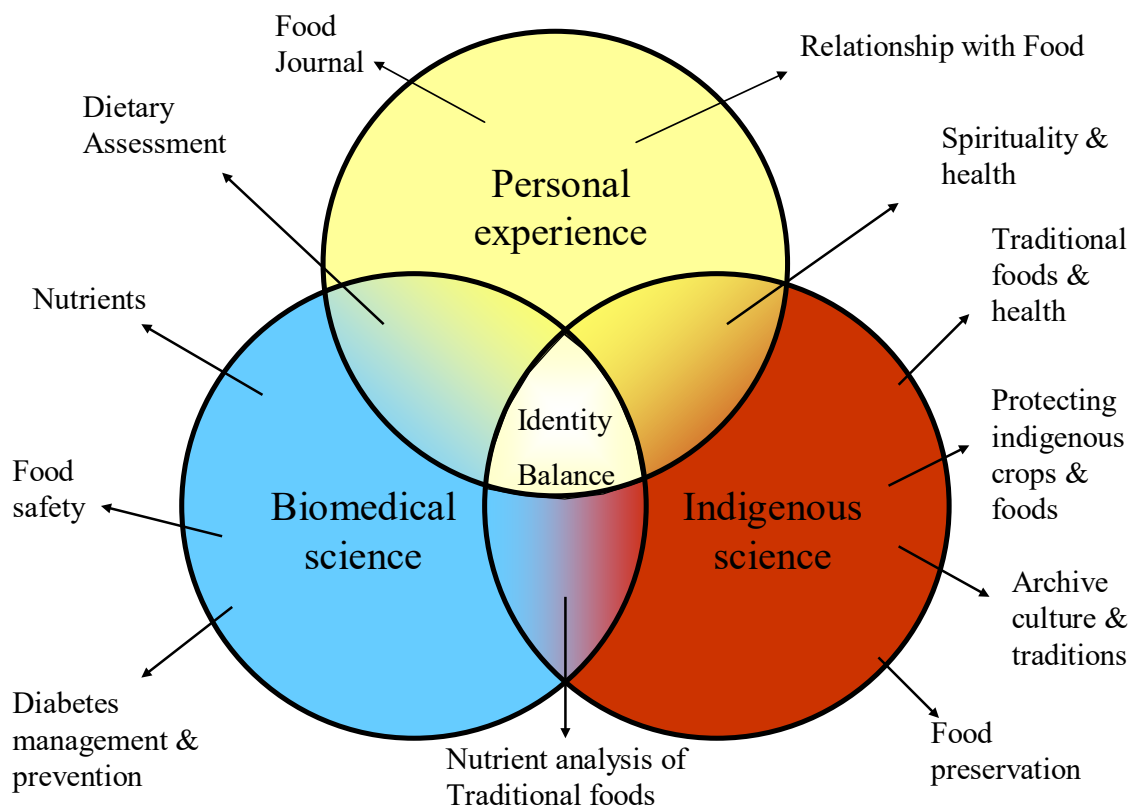
The Woodland Wisdom Parent

Having mentioned the significance of history, I offer some historical context for the present work. Much of the work here was birthed from a parental project called **Woodlands Wisdom**. Woodlands Wisdom is the name given to the vision of Pat Gailfus of Turtle Mountain Community College in North Dakota. Together with Holly Youngbear-Tibbetts of College of Menominee Nation, and Kathleen O'Kelley of Leech Lake Tribal College in the summer of 1998, these women galvanized a Confederation of six Woodlands Tribal Colleges serving communities sharing a common Woodlands ancestral heritage and lifestyle. Included were College of Menominee Nation, Turtle Mountain Community College, Leech Lake Tribal College, White Earth Tribal and Community College, Fond du Lac Tribal and Community College, Lac Courte Oreilles Ojibwa Community College. The Woodlands Wisdom vision included a goal to create a regional community consciousness around how food and nutrition impacts community, family and individual health and well-being. Another goal was to create a pipeline for creation of Indigenous Dietetics professionals.

The vision of Woodlands Wisdom reflected the unique mission of Tribal Colleges to rebuild and explore traditional tribal cultures while providing disciplinary coursework that is transferable to other institutions of higher education. The model emerging from the Woodlands Wisdom is illustrated in the Figure below.

¹³ Kuhn T. *The structure of scientific revolutions*. Chicago IL: University of Chicago Press; 1962. 3rd edition, 1996.

Woodlands Wisdom Food & Nutrition Program



Briefly, the model describes three different frames for producing knowledge; personal experience, Indigenous sciences and biomedical sciences.

Personal experience represents the lived experience of food choices and interaction with food as a daily process. If we are fortunate, we have over 1000 interactive experiences with food each year. What do we learn from these interactions?

Indigenous sciences represent Indigenous Peoples systems of thought giving rise to traditional and culturally specific understandings of the inter-relationships of earth, water, plants and animals, and balance as the key to health¹⁴. Because all things in the cosmos are in constant flux, a holistic and cyclical view of the world is needed to see patterns and interrelationships. Verb-rich languages are process- or action-oriented, emphasizing continual participation in and relationship with all that is.

¹⁴ Cajete G. *Native science. Natural laws of interdependence*. Santa Fe, NM: Clear Light; 2000.

The use of “knowledge” as a reference point for this form of understanding is problematic, as Indigenous Peoples tend to describe as more “Indigenous ways of living” or Indigenous ways of coming to knowing” than some “thing” (noun) which can be concisely described, written down or commodified.

Biomedical sciences offer Eurocentric, “Western” scientific understandings that objectify nature in the quest to improve accuracy, precision and predictability. They emphasize a world of stability and predictability, where food is viewed in terms of chemical composition and nutrition is viewed as physically measurable interactions of food and physiology. Nutrition science disciplines tend to approach food and health issues primarily through material, physiochemical, physiological and observable behavioral dimensions. Food as nutrients. Food as fuel. Food as bioactive molecules. Food as a commodity. Food as an object for human manipulation.

Many Indigenous sciences allow for these physiochemical differences but also emphasize relational dimensions of food and health. Food as nurturance. Food as participation in the world. Food as memory. Food as consciousness. Food as meaning. Food as connection. Food as medicine. Food as personal experience.

The model from Woodlands Wisdom depicts an interaction across different ways of knowing, each bringing their own models of understanding the world. I would later use the term “interfacing” to describe a process of juxtaposing two or more cultural knowledge systems so they are on equal footing and each contributing resources to problem solving. This intercultural interfacing process felt quite different than the more typical and hierarchical “program delivery” model of outreach then commonly expected of academic faculty in my position. I now use the term cross-cultural engagement (CCE) to refer to the methodology and process of engaging in intercultural interfacing as experienced from the perspective of a Euro-American academic professional.

My own training and experience as a nutrition scientist left me unprepared for the work of cross cultural engagement. I was taught in an expert driven system of education. From the perspective of my training, biomedical and nutrition science disciplines represented the only means to create valid and legitimate knowledge about food and health relationships. The worldviews and knowledge systems of other cultures might exist as beliefs, but could not achieve the status of knowledge unless they passed muster against professionalized methods of inquiry.

As I entered into the work of Woodlands Wisdom, I began to recognize that the mental models of biomedical/nutrition science which I had been taught and through which I saw and understood the world seemed somehow constrained and limited. In this environment, context became crucial while subject-matter expertise, while still essential, became secondary. I found that the supposedly universal realities, concepts and understandings that were highly shared among nutrition professionals were not always seen as relevant by Tribal College partners. To function effectively, I could not expect Tribal College partners to simply submit to the authority of Euro-Western definitions and approaches; I had to reconsider and in some instances reorient my interactions. Woodlands Wisdom partners were neither misguided nor uninformed as they were quite familiar with many of the approaches I brought into our relationship. Something much deeper was at work.

I quickly learned that contributing productively to Woodlands Wisdom required that I acknowledge I was not prepared for the work of learning to empathetically navigate and experience Indigenous Woodlands worldviews. I slowly began to recognize that by trying to accommodate other worldviews, I was able to position myself somewhat differently. I was no longer captive within the way I had been trained to think. I could “step outside” of the perspective of my background and begin to see my worldview with greater insight and from a new and different viewpoint. While my content expertise in nutrition was needed, it could also represent a barrier to working effectively if I insisted on carrying the content hierarchy of my training into the intercultural interaction. I had to “let go” of what I would later describe as presumptions of cultural superiority. I had to unlearn and relearn some of what was implicit in my academic training. In other ways, I had to step beyond the realm of my academic training. This “stepping-beyond” process of more empathically considering the worldviews foundational to Woodlands knowledge and understandings will be developed more fully and greater detail later.

For now, it is important to recognize that preparing professionals for the work of interfacing culturally different systems of thought has been virtually absent within the academic disciplines of agriculture, food and public health sciences until quite recently. Further transforming this state of affairs is the fundamental purpose of the current project: ***Reconnecting the Wisdom Within***.

“The models we choose determine the nature of the world around us. Let us therefore choose well so that the models we have created do not limit us and do not oppress other people.”

- Henryk Skolimowski

The transformation begins with insights into how we think, how we use our mind and where we direct our attention to better understand the world. The next section is titled “A Mindful Take on Critical Thinking” in which I explore a framework of critical thinking and develop the concept of mindful critical reflection. In retrospect, I believe my commitment to critical thinking played a significant role in the ability to persist in swimming against the currents of my training and professional expectations and go on to develop the practice and craft of cross-cultural engagement. Although its application here is to explore culture and knowledge, this section is written in general terms for wider applications.

In the later sections I address “Why Culture”? “Intercultural Interfacing” and “Cross Cultural Engagement”. My hope is that this work will stimulate more nuanced disciplinary dialogue and give more impetus to the work of collective disciplinary transformation. In the last section I refer back to culture and science, where I briefly explore “hidden subjectivities” seldom articulated within many agriculture, food, nutrition and public health disciplines. I feel we can no longer afford to exclude our implicit presumptions from inquiry. We must take responsibility for what we have overlooked. We have work to do in collectively articulating, examining and where appropriate transforming what has been invisible.

...

A Mindful Take on Critical Thinking ©

Introduction - Why Mindful Critical Thinking?

“It is essential that we foster a new conception of self-identity, both individually and collectively, and a new practical sense of the value of self-disciplined, open-minded thought. As long as we continue to feel threatened by those who think differently from us, we will listen seriously only to those who start from our premises, who validate our prejudices, and who end up with our conclusions.”

- Richard Paul, 1989

We are living in an age that is unique in our history. Each day presents us with new challenges as we confront a world of distortions, half-truths, falsehoods and even bald-faced lies put forward as truth. Prejudice, fear and outrage are a common response to ecological, cultural and spiritual divides. More skeptical than ever, we know that much of the information we get can be propaganda. Social marketing and cable TV now create like-minded, polarized echo chambers and thought bubbles. The media is brazenly used as a tool driven by vested interests. “Spin” - one-sided attempts to frame information to confirm a pre-existing point-of-view - seems to be everywhere. Bias increasingly polarizes our society. A politics of resentment is almost inescapable, pushing balanced and fair exploration of issues into a seemingly distant horizon.

Faced with the growing complexity and uncertainty of modern life, we are pressed to take in, process and evaluate more information every day. Unending messages target us constantly, catering to our personal preferences, shaping our wants and feelings of need, influencing our actions or next purchase. If money talks, it has never spoken louder than it does now. Our consumer culture shapes our priorities, perhaps as never before. We constantly find ourselves adapting to “stay current”, endlessly updating technologies, increasingly dependent on devices we only vaguely understand.

Adding to the stress, continual change and accelerating transition are part of everyday life. Amidst today’s “messy” conflicts, we are often expected to speak and act with certainty in situations that seem anything but certain. Even sources

valued as “credible” often give partial, conflicting or contradictory information. The demands can feel overwhelming, leaving us without time, energy or inclination to really sort through it all. Against this unsettled background, how do we cope? How do we find solid ground from which to make the best decisions amidst currents of instability and outright lies? How do we maintain our integrity, our health and bring out the best of our humanity in these stressful times?

A sense of certainty amidst this volatility can bring welcome feelings of relief from the chaos. Today’s highly complex problems, whether environmental, financial, political or cultural, can leave us reaching for simple answers that initially seem attractive. Our desire to escape the turbulent waters of uncertainty move us instinctively toward safe harbors of comfort and calm waters of clarity. These instincts are understandable, but also preyed upon by a marketplace of skillful advertisers, politicians and publicists who claim to fulfill our wishes for quick and easy answers. We live in times of sophisticated propaganda and mass manipulation, even “fake news” within social media. We are bombarded by simple, direct messages that respond to our natural preference for simplicity with appealing, “quick-fix” answers. On occasion, the lure of attractive, simplistic answers does work out, at least for a time. But simplicity for the sake of our own emotional comfort easily becomes a slippery slope of false reassurance. Albert Einstein once said *“Everything should be made as simple as possible, but no simpler.”* A more cynical H.L. Menken stated *“There is a simple solution to every human problem. Neat, plausible and wrong.”*

Going back to the opening quote from Richard Paul, our sense of identity is especially important in these chaotic times. Society’s messages often target our most basic emotions, evoking fear, anger, rage and division. Too easily, our highly racialized society encourages us to see one another in superficial ways. We often rush to judge, creating overly simplistic categories and stereotypes in the process. Too easily, we allow ourselves to create walls in our thinking that may appease our short-term emotions but at a deeper level work to erode a healthy sense of identity, for ourselves as well as for how we see others. It is our human nature to think, but it is also our human nature to identify with our highly conditioned habits of mind. Yet our sense of identity forms the core of what we most revere in life, our worldview, our value outlook and our perspective of what it means to live a good life.

Our sense of identity permeates our lives, all the roles we play, our relationships, even our sense of purpose. Building a healthful sense of identity is very important work that can require challenging self-questioning, uneasy reflection and

sometimes a willingness to change. Often overlooked, this important work helps us to be anchored yet flexible in amidst the challenging currents of our ever-changing life situation. It allows us the room to grow and flourish in our life-long project of developing ourselves. Knowing what to hold onto, what and when to let go is among our highest challenges over the course of our lifetime.

Cultivating a healthy cultural identity in today's turbulent society is a project that requires contributions from all our resources, both individual and collective. Developing a healthy cultural identity requires of us to take responsibility for how we use our mind, expanding our intelligence to include our heart as well as our head. We must develop our capacity to elevate our thinking to the extent we are able. **Critical thinking** and **mindful critical reflection** are essential to improving and expanding the quality of our thinking. I believe this work is integral to cultivating a healthful sense of individual and collective identity.

As we will see, critical thinking is a framework often used to better understand the outside world of events, information, products, claims and interpretations. But how often do we deliberately take a step back to observe the process of our own thinking? How often do we direct our attention inward, toward how we are using our mind? For me, this points us toward the essence of mindful critical thinking. ***A mindful take on critical thinking recognizes the quality of our thinking and the depth of our conscious awareness in how we see, experience and participate in the world. The priority becomes expanding one's field of conscious awareness, sense of connection and capacity for self-examination.***

"Between stimulus and response there is a space. In that space is our power as humans to consciously choose our response. In our response lies our growth and our freedom."

- Viktor Frankl

If we are honest, much of the time, our thinking is on "automatic pilot". We tend to react impulsively to life situations based on our past conditioning. Our thoughts are often dependent upon, even governed by, what goes on around us. Left to itself, impulsive thoughts and habits of mind often reflect our prior experiences and subconscious conditioning. When we do make the effort to think critically, our natural tendency is to selectively rationalize or justify the conclusions we want to reach. Cognitive psychologists refer to the many sources of bias that naturally invade our thinking¹⁵. How often is our thinking biased

¹⁵ See http://www.sciencedaily.com/articles/l/list_of_cognitive_biases.htm

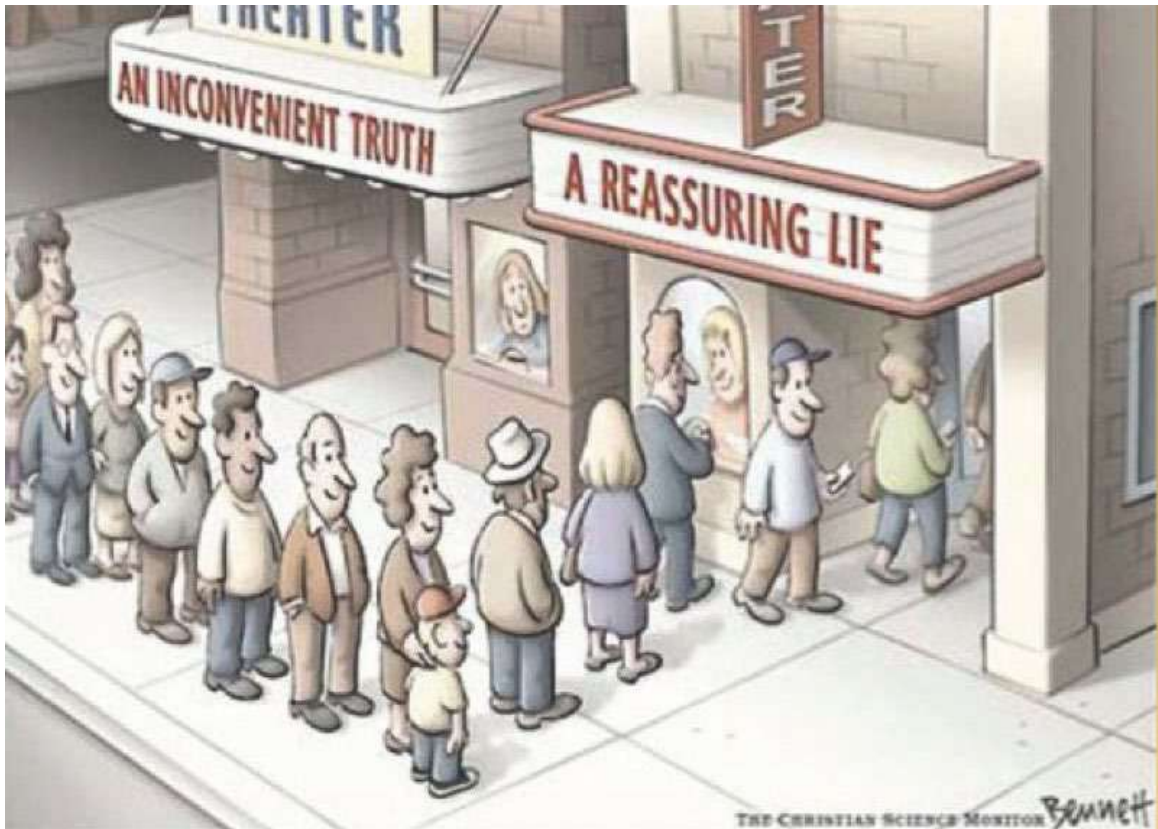
toward the patterns and ideas that are familiar to us, toward what seems most comfortable or in our vested interests? This natural tendency limits our capacity for growth and development. It is amplified within like-minded groups, where conforming to in-group viewpoints is highly encouraged and valued¹⁶. We often use our conscious thinking to justify our pre-existing ideas; far less often do we use our thinking capacity to excavate and openly examine our implicit biases¹⁷. This is especially true when our biases are culturally learned.

It takes a deliberate commitment to step back and dispassionately observe and reflect upon our habitual impulses and reactivity. It is not our natural default to interrogate how we have come to our most cherished beliefs and convictions. We seldom make a conscious effort to really examine the theories we hold or to consciously surface, identify and analyze the many biases carried within our habits of mind. This inner-directed work is the work of mindful critical thinking. Mindful critical thinking is not purely intellectual, it is also very much embodied and emotional, tied to feelings and behavior. Awareness is the first step toward improvement. Mindfulness is not for the faint-hearted. To care deeply enough to cultivate our capacity for mindful critical thinking requires courage, integrity, humility and perseverance (see *Cultivating Intellectual Virtues*, p43).

The systemic forces within our majority society work to normalize short-term, individualized (self- or ego-centered) and socio-centric (group-centered) actions and behavior. Our default mode of thinking is to “go along to get along”, to align ourselves with what is rewarded, to think as we have been schooled or conditioned. This path of least resistance can have us becoming less mindful. Swept off in the currents of ego-awareness and our consumer culture, we come to accept as normal the long-term destination of a “me-mindset”. Given modern-day pressures and time commitments, it is easy to overlook the need for a mindful approach. Sooner or later, a commitment to mindful critical thinking and insight will expose some “difficult truths” that conflict with or move beyond the scope of our immediate self or in-group interests:

¹⁶ Haidt, J. *The Righteous Mind*. Vintage, New York, 2012.

¹⁷ Margolis, H. *Patterns, Thinking and Cognition*. Chicago, Univ. of Chicago Press, 1987.



There will be times where following our default narratives and conditioning may be our best choice, so long as we have made a conscious decision that this is the time and place to temporarily allow ourselves to do so. The danger lies in allowing ourselves to be taken over by our natural egocentric tendency and in-group loyalty to the point where our default commitments become habitual and subconscious. If we internalize these commitments and narratives as truths, they can become normalized as part of our personal identity and therefore quite resistant to change. What we take for granted does not have to explain itself. In this way, it is all too easy to come to identify ourselves with a default mode of thinking. In the process, we become captive to its narratives and prisoners of its assumptions.

But as the quote above indicates, we can always create the space to make a conscious choice. Each of us has the capacity to study our inner life, to examine our natural tendencies toward prejudice, over-simplification and implicit bias. A mindful take on critical thinking asks us to tap into a deeper level of our humanity. It asks us to excavate our internalized assumptions. It asks us to examine our attachment to the thoughts we have, and to relax our identification with those thoughts. This work can be a visceral and disruptive process that requires courage and commitment. With perseverance, we can cultivate the

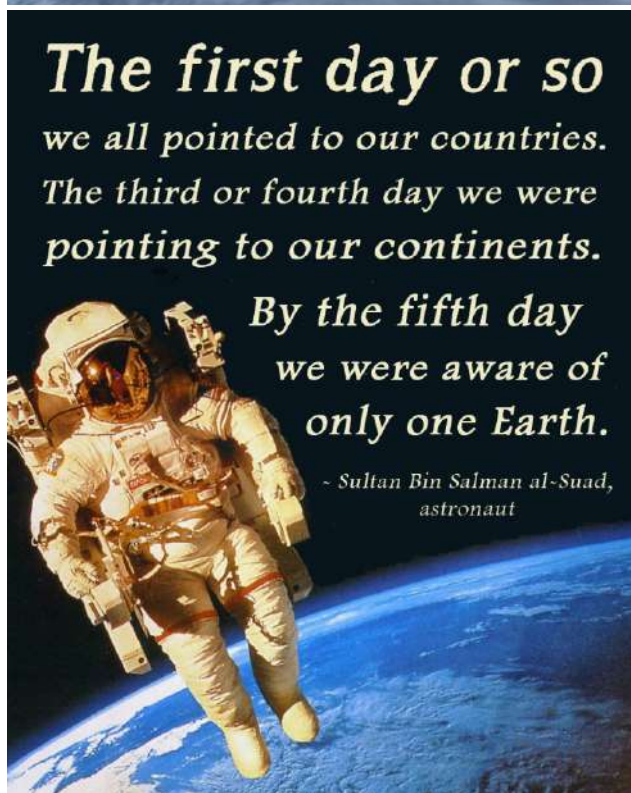
capacity to hold our inhabited truths at arms-length for further exploration. This move toward conscious examination of beliefs that once had been implicit within us creates space for our sense of identity to grow and evolve. We each have the capacity to consciously make decisions about what we should hold onto, and what within us might be in need of transformation. In this way, our evolving consciousness is the essence of our human development.

If we can make this shift, we can then hold thoughts without those thoughts holding us. A mindful take gives us room to slow down enough to surface what may have escaped our awareness. We can choose to “think again” and to become more consciously selective in how we perceive, think and respond to life situations. This shift helps us to avoid being carried away by the currents of our impulsive thinking, wherever that might lead. We can learn to value our thinking while also recognizing and appreciating its limitations. We can value the perspectives we hold while also recognizing their partial and incomplete nature. In short, a mindful take on critical thinking invites us to take responsibility for becoming active participants in a lifelong, first-person intervention project, one of improving our thinking.

A mindful take on critical thinking represents an ongoing developmental process. But more than that, it also asks that we carefully observe our conduct and actions. Our conduct and actions are driven by the thoughts we select and the narratives we hold, whether or not we are conscious of this process. We can observe ourselves in the laboratory of everyday life. We can act and learn from others about how our actions play out. Quite often there is a gap between the values we consciously espouse and our everyday actions and conduct. We can, as necessary, consciously choose to play along with the special interest and vested interest games that we are so often immersed within, but mindful critical thinking helps us to avoid becoming imprisoned by these powerful forces. A mindful take on critical thinking asks that we become a watchful witness to our conduct and actions. After all, it is our actions and conduct that represent how we participate in the world. They determine the difference we make within the world we inhabit.

How does our thinking and conduct impact other humans, other beings and our planetary ecosystem? A mindful take on critical thinking invites us into an ever-expanding heartfelt journey where we see ourselves not as separate from all else, but as interconnected, interrelated participants in all that is. Our sense of solidarity grows more inclusive. We hold within ourselves the capacity to balance our narrow-interest inclinations with a broader sense of altruism, empathy and

compassion. Glimpses of this transformation in perspective and even identity can be provoked by a dramatic experience, such as those of astronauts in orbit looking down to earth:



While a dramatic experience such as spaceflight can offer transformation, we each hold the power to transform ourselves from within by cultivating our capacity for mindful critical thinking. Each day, we can become more humbly aware of the limited perspectives and partial truths we carry and the resources that are present within other perspectives:

"All life feels a tie to Earth Mother. The one fact that seems to distinguish Aboriginal peoples from their western relations is that Aboriginal cultures understand that the umbilical cord was never cut. Like a fetus in her/his mother, each of us is constantly drawing physical and spiritual nutrition from our Earth Mother. We cannot go anywhere without her, and even in our most far-reaching voyages we are dependent on the nutrition our Mother creates for us; any astronaut would attest to this."

- D'Arcy Rheault, MinoBimaadiziwin

We live in a moment where the quality of our thinking, both as individuals and as a collective society, has implications that are now far greater than at any time in human history. Our inner biases are powerful governing determinants of our outward actions. Our responsibility to become good citizens of the world begins with our internal responsibility for how we think.

You may be thinking that the kind of mindful critical thinking and self-examination that I am introducing here offers a counterpoint to the many political conflicts, polarized perspectives and "culture wars" we see playing out today. If so, you would be correct. It may seem at first as though I am inviting a troubling sense of self-questioning, challenge and doubt. Perhaps a morally dubious questioning of authority or betrayal of loyalty. Why should we complicate life by challenging ourselves in these ways? Why not just go along to get along? Well, as mentioned earlier, that strategy does have its place. But as humans, we each carry within ourselves a natural tendency toward self-deception. Delusion, hypocrisy and narrow self-interest are commonplace. Even a brief look at our patterns of communication suggests we talk past one another without much commitment to mutual understanding.

Today our society reinforces tendencies toward narrow self-interest, separation of self or group from all else, and remaining unconscious of our biases. Messages are constructed to appeal to the most apparent and superficial dimension of our identity: the sense of self as a separate individual competing in a world of other separate individuals. Such messages have become lucrative business; the fears they generate encourage us to close ranks and construct walls that limit how we

think. Over the past century, a heightened sense of individualism has compromised a collective sense of peoplehood. Competition has compromised a more traditional sense of cooperation, harmony and belonging. Systemic forces easily condition and shape our worldview and motivation in ways we seldom bother to critically examine. In his book *The Righteous Mind*, moral psychologist Jonathon Haidt uses the analogy of a person riding an elephant to illustrate the power of our innate tendencies. The elephant represents our preconceptions and unconscious bias, while the rider represents our conscious awareness as humans. After careful review of research, he suggests it indicates that 90% of our actions are controlled by the subconscious elephant, 10% by the conscious rider. His research supports our natural human tendencies toward self-deception (see the section on *Recognizing Our Irrational Disposition* p38).

I see mindful critical thinking as an antidote to the fallacies, the spin, the self-deception and one-sided appeals to our lesser selves that has become so commonplace. It offers us a means to interrogate the powerful systems and institutions that permeate our psyche and influence our daily lives. Mindful critical thinking helps us to recognize the magnitude of the challenge in front of us. Developing mindful critical thinking requires persistence, dedicated practice and commitment, not unlike how we might improve our physical fitness. It invites us into the challenges of self-exploration and personal transformation. Change and transformation of any kind are indeed difficult. But again, each of us holds the capacity to move ourselves beyond our natural tendencies. With time and effort, one develops the capacity to create self-knowledge through action and reflection that holds transformational power. Within each of us are the resources to gain awareness of our elephant's subconscious conditioning and to more consciously master the ride of life.

Ideally, education is a primary means through which we develop ourselves as mindful critical thinkers. As part of its public mission, higher education in America has historically included a societal ideal of producing an educated and informed citizenry, beyond a narrow vocational realm. Stephen Brookfield has stated, "learning to think critically is one of the most important activities of adult life"¹⁸. I believe this to be true for the collective future of humanity as much as for one's career aspirations as an individual within the greater society.

Educators and employers all agree that critical thinking skills are essential for well-educated citizens and a successful work-life. Yet surprisingly few education

¹⁸ Brookfield, Stephen D. *Developing Critical Thinkers*. Jossey-Bass, San Francisco, 1989.

professionals can describe a sound conception of critical thinking or show how they work to cultivate critical thinking within their classrooms and work environments. In a very real sense, the term “critical thinking” has become a catch-all buzzword. It seldom reaches to the substantive, life-long work and effort in developing oneself as a mindful critical thinker. This work is especially important for parents, institutions and communities because enhancing our capacity literally “takes a village”.

The mindful take on critical thinking I present here represents an attempt to further revitalize critical thinking as a public responsibility inherent in the “land-grant idea”¹⁹ of higher education. I believe many of our academic disciplines and institutions of higher education have become somewhat shortsighted and parochial when it comes to human knowledge and our public mission. The challenge of creating a better tomorrow requires all forms of human knowledge, from wisdom within cultural traditions to local knowledge of lived experience to the technical/academic knowledge of professionals. Mindful critical thinking helps those of us within academic circles to excavate and examine our implicit and internalized commitments embedded within what we profess. Education can be a very a powerful force in co-creating a better tomorrow. As active co-creators, the quality of our thinking has everything to do with the quality of future we create. We can no longer afford to disregard the precious resources of human knowledge, experience and wisdom, wherever they exist.

My responsibilities as an academic professor and community Elder call me to write this publication. My hope is to offer you some guidance in:

- 1) Developing a strong sense concept of mindful critical thinking; and
- 2) Investing further time and effort in developing your mindful critical thinking capacity.

As with any form of practice, effort, discipline and commitment are required. Over time and with practice, we can find ourselves less dependent upon the approval of others, less vulnerable to common appeals to fear, anger and outrage. We become less prone to getting “caught up” or “carried away” by our own thinking that may be flawed in ways we are unaware. We become more open to seeking perspectives that challenge our viewpoints and to engage the knowledge and perspectives of cultures unfamiliar to us. By using our mind to confront and examine our thinking, we build our capacity for self-correction that can help us to

¹⁹ Peters, S. *Cooperative Extension and the Democratic Promise of the Land-Grant Idea*. Minnesota Extension Service, St. Paul, 1996.

recognize our own biases and overcome initial reactions. In the process, we gain greater self-awareness and the capacity to more fully embrace our human possibilities.

"But of course, if you are not going to create with consciousness, then your unconscious will do the creating for you. Lack of attention produces unconscious creations. Why does every teacher say, "Stay in the moment"? Because in the moment you hold the reins of creation, and the renegade unconscious is gently, obediently placed under your control. When you are out of the moment the renegade can run amok, creating what you no longer want out of reliving the past or fantasizing about the future."

- Bartholomew, *Reflections of an Elder Brother*

A Critical Thinking Frame

Let's begin by taking an initial cut at describing the term "critical thinking". Critical thinking is for everyone. It represents a conscious use of our "active mind skills" including intention or will, reasoning, and our creative imagination. There are many definitions, but no single definition of critical thinking captures all that it is.

Critical thinking is **not** limited to the ivory tower of academicians or scientists. Nor is it a form of fault-finding, nit-picking, disparaging others or otherwise negative thinking, although it is often used in these misguided ways. Given today's world, the most common initial impulse is to take critical thinking as a set of skills to think about and better understand the world "**out there**". By this I mean the "outside world", the issues, ideas, information, opinions and claims we find in media, the web and social marketing. Directing our attention in this way has us thinking **about** what we hear, read and observe in the external world around us. This use of critical thinking is implied in definition below:

"The process of evaluating information and ideas, judging the accuracy of statements and soundness of reasoning that leads to conclusions".²⁰

- Vincent Ruggiero

Evaluating, reasoning and judging are mental skills that go beyond just assimilating basic information by rote memorization. Some educators still

²⁰ Ruggiero, Vincent R. *Beyond Feelings. A Guide to Critical Thinking*. Mayfield, Mountain View, CA, 1990.

dispense encyclopedic volumes of information in the tradition of rote memorization as a prelude to critical thinking. They often believe that before critical thinking can occur, people must be introduced to basic concepts and information. I have heard some of my colleagues say “You can’t think critically about nothing”. While this statement may be true in a literal sense, it implies a “filling an empty bucket” metaphor for learning. I have found that learners seldom appear as blank slates with no frame of reference, no pre-existing thoughts, ideas or experience with which to make sense of new concepts or information. I find this “empty bucket” idea rather diminishing and disrespectful of the knowledge and humanity people bring with them into the learning experience.

My own experience as a learner suggests that to meaningfully assimilate basic concepts and information, I must think my way through them, somehow making sense of them and coming to terms within the context of what I already know. To truly understand new information, I must internalize it by relating it to my pre-existing frame of reference or understanding. Doing this well requires me to adapt my frame of reference with what I am being taught such that it holds together with integrity and congruence. I need to check out my take on the ideas being presented so that distortion and misunderstanding are first recognized and then minimized. This does not happen automatically, especially in cases where significant cultural difference must be navigated.

It is helpful to have a solid framework that can be used to help us think critically. The statement below by noted critical thinking author Richard Paul²¹ describes what he refers to as common elements or parts of critical thinking:

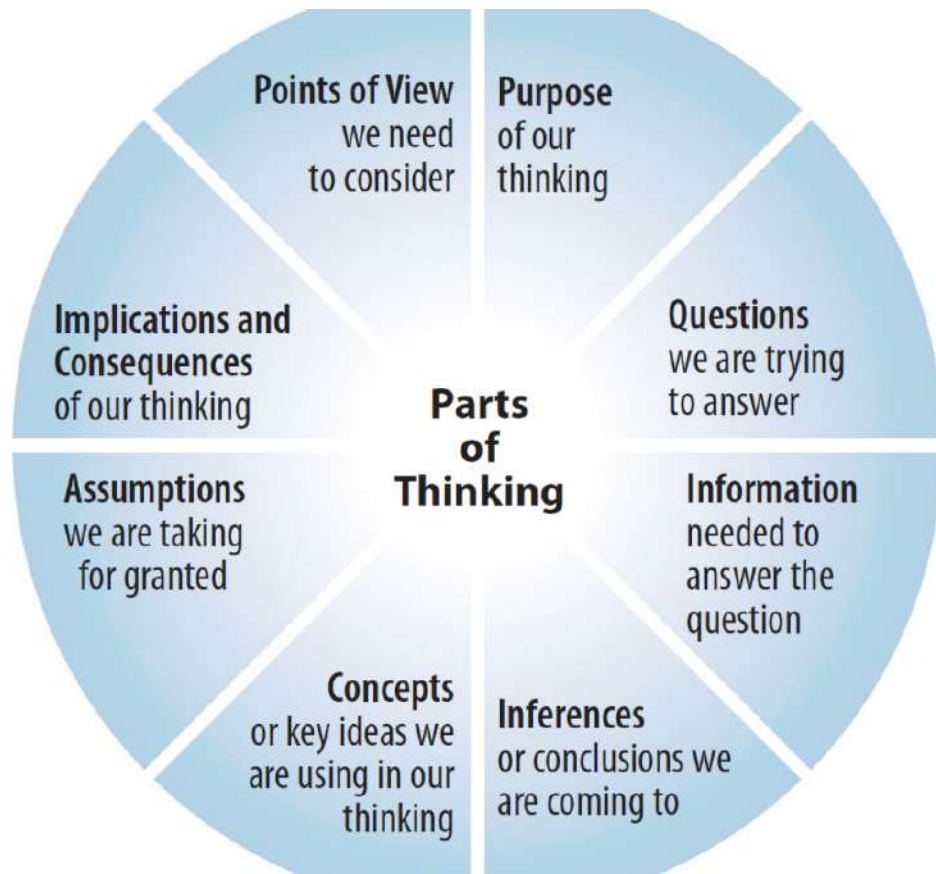
“When we think productively, we think for a purpose, from a point of view, based upon assumptions. We use evidence, observations and experiences to make interpretations or claims, based upon ideas, concepts or principles. Our thinking leads to implications or consequences.”

Paul’s statement reflects a Euro-Western analysis wherein the whole is broken into parts for further study. It may be generalized across a wide spectrum of academic disciplines of formal education, and in many mainstream institutional contexts. Its form of analysis is that of reductionism. While widely generalizable, it is important to recognize different systems of thought arise within different

²¹ Paul, Richard. *Critical Thinking*. Center for Critical Thinking and Moral Critique. Rohnert Park, CA, 1993.

language, cultural and gender contexts that offer different forms of analysis. I will discuss further the importance of culture in later sections.

With this caveat, Paul's statement holds coherence as a fundamental guiding framework for critical thinking and reflection. It forms the basis for a framework that I have found to be quite useful, if not universal. The elements or parts of thinking he mentions can be visualized as a framework for critical thinking as illustrated in the figure below²²:



When transformed as questions, these elements allow for a systematic approach to better think one's way through an issue, article, book, lecture or conversation:

- What is the purpose, goal or end in view?
- What is the specific question, problem or issue?
- What viewpoints or perspectives are involved?
- What assumptions are being made?

²² Figure taken from Elder, L. and Paul, R. *The Aspiring Thinkers Guide to Critical Thinking*, p.20, 2009.

- What information, evidence, observations or experiences are put forward?
- What ideas or concepts are used?
- What claims, inferences or interpretations are made?
- If true, what are the implications or consequences?

You can use this framework to focus your attention as you deal with the complexities of life situations that you find difficult or confusing. The questions and parts are interrelated and interdependent. How you respond in one element will influence your response to other elements. Posed as questions, these elements of thinking give you a more systematic way to work through a difficult question or issue.

Going still further, you can better clarify the issues, arguments or positions by bringing Paul's "standards of reasoning" to the elements or parts of critical thinking posed as questions. His standards include clarity, accuracy, precision, depth, breadth, relevance, fairness, significance and coherence among others.

For example, **to what extent is the question or issue:**

- Clear or unclear?
- Specific or vague?
- Relevant or irrelevant to the overall purpose?

The question lays out the problem and guides our thinking, so we need to be clear about it. Obscuring the issue by changing/re-defining the question or issue is a common tactic in creating spin or propaganda.

To what extent is the perspective:

- Narrow or broad?
- Biased or fair?
- Complete or incomplete?
- Fixed or flexible?

The perspective is the point of view from which the question or issue is seen and approached. Perspectives are shaped by histories and are seldom explicit. Effort is needed to understand a perspective and "step into" or inhabit it mentally. All viewpoints and perspectives are based upon assumptions and ways of experiencing.

What assumptions are being made? To what extent are they:

- Explicit or implicit?
- Significant or insignificant?
- Examined or unexamined?
- Justifiable or unjustifiable?
- Clear or unclear?

All reasoning begins somewhere and takes some things for granted. Assumptions are often invisible in our thinking. We all carry assumptions but less often do we slow down enough to become aware of our assumptions. Surfacing background assumptions and then questioning them is a very important dimension of critical thinking. A good critical thinker recognizes that that different perspectives carry different sets of assumptions.

To what extent or from what perspective is the information or evidence:

- Complete or incomplete?
- Precise or imprecise?
- Accurate or inaccurate?
- Deep or superficial?
- Relevant or irrelevant to the question at hand?

Any defect in the information, experience or evidence we are using can create problems or flaws in our thinking. Obscuring an issue with irrelevant, slanted and heavily biased information is a common fallacy used in creating spin or propaganda.

In what ways are inferences, claims or interpretations:

- Logical or illogical?
- Consistent or inconsistent?
- Fair or biased?
- Justified or unjustified?
- Sound or unsound?

Inferences are an intellectual step in which we conclude something is true based on some other truth or seeming truth. We extend inferences into claims; critical thinkers are watchful for

unwarranted or unjustified inferences, interpretations or claims. As Carl Sagan has often stated “Extraordinary claims require extraordinary evidence”.

To what extent are the implications or consequences?

- Clear or vague?
- Plausible or implausible?
- Reasonable or unreasonable?
- Significant or trivial?

Implications follow from our reasoning and decisions. As critical thinkers, we want to trace out the possible implications of our arguments, actions and behavior.

This Paulian framework for critical thinking can help sort through an issue or idea when you are thinking about something and “don’t get it”. Use these interrelated parts and standards of thinking to help direct, monitor, clarify and correct your thinking. These questions are a way to “think through” an issue, gain a deeper understanding or check out your understanding of the issue with someone else. To what extent can you understand something *in precisely the way it was meant to be understood* by the person making the argument? Here, disciplined practice, patience and perseverance is essential, as with any skill. This kind of self-reflection and insight represents a signpost on the path to mindful critical thinking. With diligent practice, you will become much more aware of what you do not know.

Today’s world is filled with highly complex, “messy” problems with competing and conflicting ideas and viewpoints. We can use the framework above in moving from one perspective to another, in an attempt to better understand another take on a question or issue. This process of moving back and forth between differing perspectives is referred to as **dialogical** thinking. Consider another definition of critical thinking:

“The ability to empathetically reason within a point of view with which one disagrees.”

This statement captures a very important application of critical thinking, one that offers a counterpoint to the current trend toward a polarized society. Today, we are often pressured by others to buy into powerful “us vs them, win/lose, either/or” narratives. Dialogical thinking asks us to temporarily suspend our

judgment and attachments to our entrenched positions and beliefs. Briefly loosening the ties to our convictions allows for greater open-mindedness and flexibility in moving back and forth between competing or conflicting perspectives. This detaching move can raise a troubling sense of self-doubt or perhaps even feelings of hypocrisy. Dialogical thinking invites us to rise above elemental reactions of fear, anger and desire for certainty. Deeper learning often requires us to tolerate some measure of uncomfortable disruption, not for the purpose of creating needless self-doubt, but to better understand another's position. This work is frequently required in intercultural work as we attempt to navigate significant cultural difference.

With practice and persistence, we can create more flexibility and adaptability in our thinking. The Paulian framework above can then help us to enter into the unfamiliar perspective. It offers a means to fair-mindedly construct an understanding of the arguments in support of a position we may not have previously given over to serious consideration. It even asks us to empathetically inhabit a conflicting perspective to the extent possible. The attempt here is to create an experience for ourselves that begins to align with the experience of those who advocate for the perspective we seek to better understand. To the extent we can open ourselves to this dialogical dimension we can build the capacity to not only better understand others, but also to more fair-mindedly challenge our own thinking.

John Dewey referred to critical thinking as the ability “to maintain the state of doubt and to carry on systematic and protracted inquiry.” Dialogical thinking offers us the means to create episodes of self-doubt that we can use to build our capacity to admit ambiguity and tolerate uncertainty. These qualities can help us suspend the habitual rush to judgment that we all experience. They can be developed over time with continued practice.

I have found that if I regularly challenge my own thinking in these ways, then I am able to welcome any challenge that others might offer in the course of life situations. Challenges by others no longer represent a polarized sense of “defending myself”, but rather are reframed as a welcome opportunity to learn more about myself from others. I learn to create what is good, to transform what is incomplete within myself into what is better. Challenges to my thinking are transformed from perceived threats to occasions for me to further my intellectual and human development. This reframing process represents the realm of mindful critical thinking.

"One of the great liabilities of history is that all too many people fail to remain awake through great periods of social change. Every society has its protectors of the status quo and its fraternities of the indifferent who are notorious for sleeping through revolutions. But today our very survival depends on our ability to stay awake, to adjust to new ideas, to remain vigilant and to face the challenge of change."

- Dr. Martin Luther King, Jr.

Mindful Critical Thinking (Critical Self-Reflection)

Notice how the work of understanding the ideas of others ***"out there"*** comes around to your own understanding and your own thinking ***"in here"***. ***A mindful take on critical thinking recognizes the quality of our thinking and the depth of our consciousness in how we see, experience and participate in the world. The priority becomes expanding one's field of conscious awareness, sense of connection and capacity for self-examination.*** Mindful critical thinking shares much in common with critical self-reflection. It has us directing attention to our own thinking, a conscious effort to step back and deliberately observe our own thoughts as though they belonged to another person. The work of stepping back and reflecting more deeply upon our own thinking is an internal process; the motivation and activity must come from within ourselves. The Paulian questions and framework above, if directed inward to your own thoughts, can help improve the quality of your thinking and self-understanding.

Mindful critical thinking represents a process of disenthraling ourselves from the stream of our thinking, from that voice in our head, to consciously observe on a deeper level what is happening within our own mind as a deliberate object of study. When we become a mindful observer of our thinking, we lessen the need to identify ourselves as that voice in our head. We lessen our attachment to the thoughts that arise within. We can listen to these thoughts from a deeper viewpoint, without becoming (identifying with) these thoughts.

As observer of our thoughts and feelings, we become more able to create distance from the ideas, observations, thoughts, feelings and desires that seem to "pop up" into conscious thought. This gives us the room to see our thoughts as they are and become more aware of how these thoughts can be limited or incomplete. As we develop this practice, we become more able to observe our mind activity without getting swept away in the thoughts. Rather than being held captive by our thoughts, we gain the freedom to consciously direct our thinking to become

more clear, more open, more fair and compassionate. In other words, we gain capacity to examine and analyze our thinking with less interference from attachments to our perspective and assumptions. We gain clarity in the extent to which our thinking is grounded by cultural conditioning. We gain proficiency in identifying what of our thinking is serving us well and what is in need of revision or transformation. We gain freedom to look for, see and connect with the good that is around us.

I find mindful critical thinking particularly useful as a means to go into an active relationship with the thoughts I hold. I use it to “think again” about what just happened, about how I reacted, or to interrogate the feelings and emotions that arise within me. I step back from my thoughts to examine them. I can change my thinking to improve it. With practice, I find that I become more aware of the natural tendencies toward self-deception that I possess. I also use it to re-examine the ideas I hold or have been taught from an early age. Rather than allowing myself to be passively held prisoner by the approval of others or by how I was schooled, I use mindful critical thinking to deliberate whether my long-held, highly-conditioned beliefs are serving me well, or whether some of my convictions are in need of transformation. I believe that one can and should cultivate a willingness, a “habit of mind” to deliberately step back on a regular basis and examine one’s thoughts. This represents a continual, lifelong process of self-study and observation; a rich source of every day learning and insight.

The definition below offers another dimension of critical thinking that I see as capturing an essential dimension of mindfulness:

“Calling into question the assumptions underlying our customary, habitual ways of thinking and acting, and then being ready to think and act differently on the basis of this critical questioning.”

- Stephen Brookfield

We all carry assumptions within our thinking whether or not we are aware. Brookfield describes critical thinking as “hunting assumptions” - a process of consciously surfacing and making explicit our underlying, often unconscious assumptions²³. Because most of our assumptions are implicit, they tend to be invisible in our thinking and often go unexamined. They are unquestioned givens we take for granted as self-evident truths. What we take for granted needs no explanation. Unexamined assumptions serve to silently govern and constrain

²³ Brookfield, S. *Teaching for Critical Thinking* Jossey-Bass, 2012.

much of our thinking. It may seem ironic that what is most invisible to us is also the most powerful force governing our actions. But if our basic assumptions remain unconscious, we very often remain prisoners of those assumptions.

Mindful critical thinking allows us to make conscious what was otherwise subconscious. We can use it to expand the depth of our conscious awareness by giving ourselves room to deliberately hunt down what we take for granted. If we can make explicit those assumptions that are otherwise implicit, we can then hold them out for critical examination. We can assess the extent to which we rely upon them, and to the ways in which they govern and limit our thinking. Hunting assumptions is essential to mindful critical thinking. This helps us to make visible what is invisible; to become more consciously aware of our “blind spots” and so become less blind.

How we think is greatly influenced by how those around us think. This powerful social dimension of our humanity points to culture as a very important concept. We will explore more fully the concept of culture later, but because it is so interrelated with the mindful take on critical thinking I am presenting here, I want to share a definition of culture from the Cultural Wellness Center:

“Culture consists of practices that people create to give themselves continuity and cohesion across generations. Culture consists of a set of highly patterned, unspoken implicit rules, behaviors and thoughts which control everything that we do. A people, peoplehood is at the core of culture.”²⁴

This definition captures well the somewhat ironic truth mentioned above: That which sits beneath our conscious awareness can be the most powerful governing force over our thoughts and actions, for better or worse. This truth offers us another milestone on our path toward mindful critical thinking. It helps us to discover and understand the deeply implicit dimensions of shared intentionality and group-mindedness that allow us to feel a sense of belonging and membership, sharing group-related norms and emotions. As highly social beings, culture greatly influences our thinking, even within a highly individualistic US cultural context. Our desires, prejudices and projections of how things should be, our ideas of what constitutes progress and success are all highly cultural. In a dominant cultural context, it is easy to forget this cultural dimension and assume

²⁴ Cultural Wellness Center, 1996. Cited in: *Moving from Race to Culture. How Does Culture Equalize the Privilege or Consequence of Race?* Minneapolis, MN, Sept, 2015.

these ideas represent universal preferences. A mindful take on critical thinking helps us to become more consciously aware of our cultural foundations and helps in deliberation over what we should hold onto as cultural resources and what of our attachments might be in need of transformation.

Recent work at the Cultural Wellness Center²⁵ and with Healing Roots²⁶, where I study as a Fellow and Elder, shows this kind of self-awareness and self-study of mind and thought offers a pathway for creating a healthier and more deeply rooted cultural identity. These community-based organizations offer excellent and supportive networks that I find critical for developing mindful critical thinking through self-study, in that they work to create the space for and practice of truly respectful interaction across culturally different knowledge systems²⁷. I have found that this work in an interpersonal community context is essential in moving beyond the overly simplistic, highly racialized identity and negative politics that are continually reinforced by societal messaging. A supportive community committed to mindful analysis is very important in the work of building a healthy cultural identity and sensitivity needed for positive intercultural relationships. The kind of personal and professional development has been lacking within institutional settings until quite recently.

The dynamics of modern-day globalization increasingly bring people from different cultures into interaction with one another. The quality of our cross-cultural interactions matter more now than at any previous time. We have a natural human tendency to judge other cultures from the perspective of our own culture. Mindful critical thinking is needed as we struggle to navigate these built-in biases inherent in cultural collisions and conflicts. While cultural conflict is natural, we can move beyond the reptilian impulse toward “culture war” as we strive to create more positive intercultural interactions. Each culture offers its own insights into beauty and truth, expressing what it means for its people to be human and alive. Mindful critical thinking helps us to take responsibility to further develop and refine the quality of our thinking so we can more empathically understand the richness of cultures beyond our own. Recall the experience of the astronauts.

²⁵ Powderhorn/Phillips Cultural Wellness Center. *Healing From the Four Directions*. Proceedings from: Cultural Wisdom for Group and Community Healing, 2002.

²⁶ <https://healingrootscommunity.com/>

²⁷ Azzahir, Ahmed. *The Three Books of Khepra. A Khepran Knowledge Philosophy*. International Khepran Institute, Minneapolis, 2017, pp 63-65.

"What we see depends on what we look for. Which is the true perspective? It may be that the only wrong perspective is the one that insists on a single perspective"

- K.C. Cole, Physicist

Recognizing Our Irrational Disposition

Now that we have a framework for critical thinking and some sense of a mindful take, let us take an honest look at our natural human tendencies. As long ago as the 4th century BCE, the Athenian philosopher Demosthenes said "Nothing is easier than self-deceit". Richard Paul referred to humans as "self-deceiving animals". It is our default nature to notice only what reinforces our pre-existing point of view. We have a subconscious tendency to "cherry pick" information that aligns with our views and to overlook or dismiss information that challenges our beliefs²⁸. We often rationalize our position in an attempt to justify our actions.

Unless we are taught otherwise, we see little reason to make a concerted effort to carefully interrogate our own perspective. Rather, our tendency is to first use a critical thinking frame to look for flaws in the thinking and arguments of others. We hesitate to examine our own perspective with similar veracity. Many of our beliefs are socially conditioned to the point that we internalize and identify with them. They become "off limits" and beyond question, lest we feel threatened. We are seldom inclined to reflect upon the background context in which our perspective, our values or our "habits of mind" have developed. A mindful take on critical thinking reminds us that much of our work is to be directed within ourselves.

We tend to be most comfortable and reassured when we are among like-minded people. We naturally gravitate toward in-groups where our thoughts and perspectives are highly shared. In such environments, we gain a sense of comfort by "fitting in". As we become loyal members, we use our thinking skills to selectively serve and rationalize pre-existing individual interests and our internalized group/community interests. This self-serving or group-serving disposition is so common, it seems "normal", even necessary in today's society. Like-minded groups offer a sense of "belonging" that often intensifies our tendency to cherry pick information that supports our perspective and to disregard information that challenges our beliefs.

²⁸ Wilson, T.D. *Strangers to Ourselves: Discovering the Adaptive Unconscious*. Cambridge, MA: Belknap, 2002.

Think about how institutions have become increasingly polarized around complex issues of abortion, gun regulation, climate change, tax policy, health care, a racialized society and environmental protection to name a few. The “win; don’t lose” mindset, driven by feelings of judgment, opposition, anger and self-righteousness create emotions of allegiance and become the default response. A group sense of loyalty can bring a polarizing tendency that would have us see the interests of those with different viewpoints as the enemy. Cultivating and exploiting fear of difference, fear of the unfamiliar has now become a highly lucrative occupation. Fear works to easily override our higher-order thinking. Fear can prevail over our commitment to mindfulness. We might come to believe that we have no choice but to protect ourselves by engaging our impulse toward self-interest. “Fight fire with fire.” But what might initially appeal to our more superficial, default impulses may come at the expense of others, or even, ultimately, ourselves!

When we remain unconscious of our capacity for self-deception, our narratives inhabit us to the point where a challenge to the narrative we hold is taken as an attack on our identity. This arousal of fear can easily overtake our ability to think mindfully, shutting down any motivation toward empathetic consideration of a perspective to which we are opposed. Just look at the polarizing effect of today’s mass media marketplace in catering to and reinforcing preconceived viewpoints and perspectives. This marketplace response reflects our natural preference for like-minded groups, for creating comfortable micro-worlds of support and approval for shared value outlooks.

A like-minded community can be a good and powerful resource, so long as we remember our innate tendency for self-deception and group-centered biases as human beings. How often do we welcome challenges to our convictions and beliefs as an opportunity to check out and correct our thinking? Because we are naturally inclined to understand the world in terms of what we already know, mindful critical thinking helps us attend to how we build our own biases, based on our own experience. Consider the quote below:

“Our experience is less about what actually happens to us and more about what we make of what happens to us.”

- Aldous Huxley

I like this statement because it reminds us of mindful critical thinking; the role of our own thinking in how we organize our perceptions and construe our

experiences. Many of us are caught up in a common habit of equating the content of our thoughts with an accurate and direct description of the world as it is. Perceiving a situation seems so simple. Just look and see what is going on. The act of observing seems like we are merely passive recipients in the process. But beneath this seemingly simple act, our minds are continually at work organizing, filtering and interpreting what we observe, often directing our attention without any conscious supervision or oversight. This mental sense-making process is so automatic we seldom notice it.

Organizing our experience to construct meaning is not a passive process at all. We tend to take for granted our meaning-making process because it operates beneath our conscious awareness. Our past experience often “triggers” our attention in certain directions and toward certain events while we overlook other events we regard as less significant. We are seldom aware of our own involvement in making sense of the external events happening around us. While it is natural for us to feel that we have figured out the way things actually are and that we have done so objectively, we need to remember the phrase from the Talmud: “We do not see things as they are, we see things as we are.” We should remember to take account of our own subjectivity in how we organize our experience and construct meaning.

This is especially important when we immerse ourselves in like-minded groups. With the support of others, we easily come to believe that our experience, or our take on our experience, represents a universal reference point for how others experience (or should experience) the world. With a bit of mindful critical reflection, we can begin to see the powerful influence of culture on what catches our attention, where we focus our attention and how we make sense of our experiences. From a young age, making meaning of experience is both learned and patterned within a cultural context. This early acculturation process is often implicit and so becomes a powerful force in how we organize our experience. We will return later to the importance and power of culture in constructing meaning from experience.

For now, it is important to recognize that by using mindful critical thinking, we can go into an active relationship with our thoughts rather than to simply identify with whatever initial thoughts we have or ideas we hold. This is a very important distinction. It can be the difference between being actively aware of and checking out our thinking on one hand or being passively led by wherever our thoughts or groupthink might take us on the other.

Listening as Mindful

As an example, consider your thinking as you listen to someone else. How often does your attention shift from listening in the moment, openly receiving what is being offered, to reactions, feelings and thoughts of agreement or disagreement? How often do you evaluate or make judgments about what is being communicated as you listen? How often are you concerned with formulating a response as you listen? How often is your attention and mental activity driven not by a need to really understand or take in another's truth, but as an occasion to defend your own ideas, to forward your own rationale or to feel better about yourself by "winning" an argument?

Mindful listening is much more than allowing another to talk while we wait for a chance to respond with our own ideas. Mindful listening is creating some quietness within our mind, a spaciousness and sense of selflessness that allows us to take in more fully the words and voice of another. It is about suspending any self-centered impulse toward judgment so that we can direct our full attention to being as open and receptive as possible. In other words, we do our best to respectfully understand precisely as this person would intend us to understand. We listen to others with reverence and gratitude for what they may offer. This kind of deep listening is neither easy nor natural. It is about opening ourselves enough to be able to receive what another person actually intends to communicate to us.

Mindful listening asks us to take full responsibility for our mental habits, to be aware of our natural egocentric and judgmental impulses, and to do our best to quiet those impulses while we try to welcome and fully receive what we are hearing. It is a practice that asks us to recognize and develop within ourselves the watchful discipline needed to recognize what is happening within us as we listen to a contrary view. It asks us to temporarily suspend our own feelings so that we can make the room needed to gain an understanding of their situation or their perspective to the extent we are able. It helps to recognize that there is good within our human nature and to attempt to identify, connect and empathize with the good in what is being communicated. This is listening with reverence and respect.

After someone is finished speaking, we may give ourselves some time to make meaning from the listening experience. If and when appropriate, we may check out our preliminary sense of understanding - "What I'm hearing you say is" or

“My initial understanding of what you are communicating is”. This represents a process of working to relate to the experience or idea of another, to understand this person in the manner they wish to be understood.

It is almost impossible to listen mindfully all the time. For most of us, this commitment represents a significant change in our mental habits. But we can start with isolated instances that we choose intentionally. These episodes will likely feel quite different if we can observe ourselves carefully and quiet our own reactions. We can gain more awareness of the quality of our listening. We can become more aware of subconscious patterns that lead to reactions. We become more aware of any negativity as it arises within and recognize tendencies to hold or attach ourselves to negative reactions. We can examine our reaction internally before we react externally. With dedicated practice over time, mindful listening will become more natural.

We benefit by listening in this way because the simple act of sincere listening is respectful interaction with others. Listening is about connecting with another, developing a quality of shared understanding. We benefit because we develop our higher selves when we listen in this way. It is often through the quality of our listening and not our words in response that we are able to effect the most profound changes. If we are genuine, those we are listening to may feel more “heard”. We may develop a sense of connection or empathy that invites further relationship where words and non-verbal cues are considered more deeply. Mindful listening can be a very simple yet powerful tool of healing. We become more aware of our own filtering tendencies that can get in the way of good communication. We develop a capacity to better recognize and be consciously aware of our egoist and groupish impulses. In this way, mindful listening helps us to learn about ourselves as we learn about others.

“If we cannot understand our narrative as it is understood by others and tell it as it is told by those others, in necessarily different tones of voice, with necessarily different emphases, then we compromise our own self-knowledge. Being unable to recognize how others understand us, we become blind to the relationships in which we stand to them and so obscure part of ourselves.”

- Alasdair MacIntyre, Philosopher

Cultivating Intellectual Virtues

If we practice listening in a manner as described above, we become aware of the need to explore more deeply the “habits of mind” that are within us. We become more willing to recognize and examine our egocentric and socio-centric tendencies, rather than to deny or suppress what might seem unpleasant or uncomfortable.

It is important here to distinguish a “*self-serving*” use of critical thinking motivated by a narrow sense of self-separateness and self-interest from a more conscious and mindful critical thinking that connects one’s self-interests with a higher and more cohesive cause and purpose. We all know that a part of our human intellect naturally defaults toward serving one’s own immediate interests. This becomes widespread in a society that encourages us to see ourselves as isolated individuals, in competition with other separate, autonomous individuals. Unrestrained individualism and competitiveness can lead to an imbalance of alienation and distrust, which in turn, cultivates a dimension of thinking heavily weighted toward self-protection and self-regard. I call this dimension of modernity the “story of separation”. As we buy into this separation narrative, it becomes a self-fulfilling prophecy. Self-serving thinking easily becomes a way of life that obscures our awareness of and connection to a higher common cause.

What sits beneath my need to be right, to manipulate others, to always win or be in control? Are these needs necessary for my survival? Are these habits of mind conditioned by messages I get from society? Must I always selectively go along with my own interests? Are these needs and insecurities keeping me from considering different approaches or perspectives that may hold some truth? What are the implications of pursuing self-centered interests? What regard or compassion ought I to have for the self-interests of others? Must I accept as unavoidable a competitive “dog eat dog” mentality as the default approach to life? If not, how do I balance my own needs for self-protection with others who have similar needs?

Actively engaging and exploring self-centered habits of mind is not something routine or automatic. This work can be uncomfortable. It is much more common to push away the discomfort that comes with this kind of self-examination before we get very far. On occasion, we may notice that we often publicly espouse values, actions or ideas that conflict with our own actual behavior or decisions. These “inner contradictions” can easily be pushed away or buried by the endless array of more pleasant distractions that call for our attention. We may never give

these inner contradictions our serious attention if we have not developed our capacity to tolerate conflict or uncertainty. Too often, it is easier to take the path of least resistance and just push these deeper realizations aside, or bury them with more immediate distractions.

Mindful critical thinking moves beyond just being smart or clever in employing critical thinking narrowly, in the service of one's own self-interest. It involves the humility of doubt, not for the purpose of berating or belittling ourselves, but for the purpose of shifting from an "I know what's right and I'll convince you" mode to a more open learning/inquiry mode "What convinces me that I really know best?" Mindful critical thinking includes compassion for, connection to and harmony with the interests of others. We value the learning we receive from others. Prioritizing connection and harmony cultivate a disposition of openness, respect, reverence and gratitude.

As mindful critical thinkers, we are aware that our perspective is limited and incomplete, that we routinely make unexamined assumptions. Pieces of the puzzle are missing from our perspective. We recognize that what we do not know greatly exceeds what we do know. When we are consciously open to the possibility that our thinking could be improved and we have the integrity to be open and authentic with others regarding our own limitations, we are practicing critical thinking in the mindful sense. But openly admitting this can also bring along a sense of vulnerability that can be uncomfortable and contradictory to how we are so often taught to survive. Equating vulnerability with weakness is an idea that is often reinforced in our society. Mindful critical thinking would have us call this idea into question.

If we unconsciously buy into the "vulnerability equals weakness" idea, we can see how the need to "be right" becomes quite seductive. But feeling the need to be correct can quickly harden into intolerance, self-righteousness and closed-mindedness. Being seduced in this way may have us simplifying an issue as a means to offer ourselves reassurance in the certainty of our position. From here, conflict over differences can feel threatening and easily lead us to become even more entrenched in our position.

But what feels like conflict at one level can be a disguised invitation to a deeper, more mindful take on critical thinking. The invitation is to learn more about ourselves, to grow and develop more fully into our human potential. Remaining open enough to question ourselves in difficult moments asks us to summon the

courage to be vulnerable in the face of uncertainty. The table below helps to clarify this distinction:

Self- or Narrow Group Serving Critical Thinking	Mindful Critical Thinking
Emphasizes “being right”	Emphasizes “being open”
Furtheres self-interest within familiar/narrow boundaries	Furtheres learning through expanding/challenging boundaries
“Win, don’t lose”	Vulnerable in the face of uncertainty
Emphasizes authority and ego	Emphasizes authenticity and humanity
Creates boundaries, division and defense mechanisms	Creates openness, relationship, honesty and risk

Mindful critical thinking is not a natural state of mind. If we are to cultivate mindful critical thinking we need to cultivate virtues or dispositions²⁹ within our “habits of mind”. In other words, we need to build virtues into the ways in which we routinely approach and live our lives. Here we distinguish the extent to which critical thinking is employed to serve ends that are more divisive and self-serving from those that are more inclusive and connected to a greater common cause of seeking truth.

The intellectual virtues described below were first conceived by Richard Paul, a leader in the critical thinking community. As you read through the descriptions, you will find that these virtues are inter-related and interdependent. He reminds us that each of us falls prey to the powerful forces within society to conform to a more narrow self-centered or group-centered critical thinking. I would also add that these virtues are not strictly intellectual. At first they are understood through the intellect, but as one develops the capacity to put them into everyday life, with time they become part of our character. As we live into these virtues we embody them so that their presence or absence evoke a notable visceral, feeling response. Motivation to live into these virtues must come from within ourselves, drawing from a fuller wholeness of heart beyond our intellect. They may also hold somewhat different meaning when viewed from different cultural contexts.

1. **Intellectual Humility:** Being conscious of the limits of our knowledge, including sensitivity to the circumstances in which we are easily deceived by

²⁹ Paul, R. *Critical Thinking*. Center for Critical Thinking and Moral Critique. Rohnert Park, CA, 1990, p.54.

our own biases. Humility asks that we not claim to know more than we actually know. We should remember occasions when we were wrong in the past despite an intense conviction that we were right and to imagine our being similarly deceived in the current case-at-hand. Humility includes self-awareness and sensitivity to the underlying bias, prejudice and limitations inherent in our own point of view. Humility is not to be mistaken for spinelessness or submissiveness, as its practice requires courage, honesty and integrity. Through disciplined practice, we can check natural tendencies toward intellectual pretentiousness, deceit and hubris.

2. **Intellectual Courage:** Being conscious of the need to face and fairly address ideas, beliefs or viewpoints toward which we have strong negative emotions and to which we have not given a serious hearing. We should not passively and uncritically "accept" what we have "learned." Sometimes, the conclusions, beliefs and perspectives we carry can be false or misleading. If we identify strongly with certain beliefs, we may feel threatened when we consider an idea opposing those beliefs. Intellectual courage comes into play when we come to see some distortion or falsity in ideas that are strongly held within our social group, or when we find truth in some ideas dismissed or considered absurd. Systemic injustices can be invisible until we find the courage to fairly confront and consider them. Standing up and giving voice to injustice requires courage. We need courage to be true to our own thinking in circumstances of unequal power where the penalties for non-conformity can be severe.
3. **Intellectual Empathy:** Being conscious of the need to imaginatively put ourselves in the place of others in order to genuinely understand them. Empathy is feeling what another living being feels. Practicing empathy requires being consciously aware of our tendency to identify truth with our immediate perceptions of long-standing thought or belief. This virtue assists us to temporarily suspend judgement in order to construct as fairly as possible an imaginative facsimile of unfamiliar viewpoints, worldviews and systems of thought. A sense of compassion (interconnection) will arise from within as one develops capacity for intellectual empathy. Compassion is based on a keen awareness of the interdependence of all living beings, which are all part of one another and all involved in one another. This means developing both a willingness and ability to inhabit (to think from within) another perspective as a means to gain a perspective that more closely and fairly approximates the experience, perspective and viewpoints of others.

4. **Intellectual Integrity:** Recognition of the need to be true to one's own thinking; to be consistent in the intellectual standards one applies; to hold one's self to the same rigorous standards of evidence and proof to which one holds others; to practice what one advocates for others; and to honestly admit discrepancies and inconsistencies in one's own thought and action. Intellectual integrity asks us to be as fair and respectful as possible when entertaining opposing viewpoints. It requires us to sense, diagnose and work to resolve the contradictions within our thinking as well as systemic contradictions embedded within our institutions. Integrity involves a full commitment to being open while listening, feeling, observing and sensing. Broadly conceived, integrity implies an integration that goes beyond our cognitive intellect to our full humanity: soul, heart, mind and body.
5. **Intellectual Perseverance:** Being conscious to use intellectual insights and truths in spite of difficulties, obstacles, and frustrations. We need to work through intellectual complexities despite being frustrated or when there is no immediate reward for doing so. This includes holding to moral and ethical principles when pressured to conform to environments of self-serving critical thinking where unexamined prejudice, bias or injustices are prevalent. It also includes a tolerance for uncertainty, ambiguity and mystery; a sense of the need to suspend judgement, to hold and struggle with confusion, unsettled questions and cognitive dissonance over an extended period of time to achieve deeper understanding or insight.
6. **Confidence In Human Intelligence:** Confidence that, in the long run, higher interests and those of the greater good will be best served by people who have the agency to think, act and learn for themselves; by encouraging people to come to their own conclusions by developing their own intelligence; faith that, with proper encouragement and cultivation, people develop the capacity to think coherently and become reasonable persons, despite the deep-seated obstacles in the character of the human mind and in society as we know it. Communities valuing confidence in human intelligence will discourage and work to overcome blind faith, propaganda, distortion and "spin".
7. **Fair-mindedness:** Being conscious of the need to treat all viewpoints with equal respect, and the need to step outside of the influence of your own feelings or vested interests, or the feelings or vested interests of your immediate friends, community or nation. Being fair-minded implies commitment to truth and reason over loyalty to unjust coalitions. It implies awareness of and willingness to critically examine the often un-discussed or

invisible dynamics of power and privilege. It implies maintaining one's intellectual integrity, empathy and perseverance in the face of societal inequities that work to propagate injustices within the status quo.

As we cultivate these traits or dispositions, we carry a spirit of mindful critical thinking with us into our encounters with others. We take on difficulties as opportunities to connect with, co-create and participate in the world we wish to inhabit. As indicated earlier, these traits go beyond the purely intellectual realm and permeate our feelings and how we conduct ourselves in the world. Knowing about these virtues is a good start but is not sufficient for us to act virtuously. Applying them in daily life, in forming and sustaining relationships with others gives us the opportunity to develop our virtuous sensitivity. As we develop sensitivity for these virtues within ourselves, we better recognize them in others. We become more able to accept criticism with gratitude and to hold ourselves more accountable to others. Our actions should serve to make the world a better place.

Richard Paul reminds us that we each have a side of ourselves that is unwilling to face unpleasant truth, willing to distort, cherry pick and rationalize, that these impulses are powerful and can dominate our minds, especially when we are so often rewarded for self-serving critical thinking. If we allow our actions to reflect these more superficial impulses, we contribute that self-serving thinking, that self-serving consciousness to the world. By contrast, if we work to cultivate these virtues within ourselves, we then contribute to a higher, more mindful interconnection and compassion within the world.

As was mentioned in the opening introduction, the seduction of certainty is a very powerful influence. Everyone wants certainty in their lives. A sense of "being right" can evoke strong emotions of loyalty to which we easily over-attach. Calm waters and safe harbors of certainty are especially attractive amidst the turbulent polarization of our age. But the more "certain" we are, the more fixed, rigid and restricted our thinking becomes. Knowing how to act virtuously always involves more than just following rules. If we become "locked in" to our position, our perspectives and our assumptions, our thinking becomes circular and closed. We limit our capacity to listen empathically, to discern and see clearly the viewpoints of others. We may feel reassurance in the short run, but over time become myopic and blind to our myopia. We risk forsaking the depth of the complex realities and truths that are ever present in our lives and relationships for a more immediate sense of self-gratifying certainty.

Moving beyond self and group-serving critical thinking requires us to cultivate the virtues described above along with the qualities of **open mindedness** and **tolerance of ambiguity**. The metaphor of trees in a storm may be helpful. We can be well-rooted in our values, but trees that are overly rigid get blown over, while trees that are flexible enough to bend with the winds stay well rooted. Our capacity and discipline to keep an open mind helps us to judge how to act in absence of rules and in cases where general norms are not appropriate.

How might this distinction between self-serving and mindful critical thinking play out in today's society? Technology increasingly allows us to customize our interaction with others as we choose. But how do we use this technology, and for what ends? Do we use these new tools to challenge our own convictions? Or is it easier to create safe harbors of acceptance that reinforce our pre-existing ideas, values and beliefs? We know that the media is now organized to cater to specific pre-existing political preferences or particular stands on issues of the day. This makes it easier than ever to find ourselves within echo chambers of like-minded groups; micro-worlds of shared assumptions, support and approval. Such environments can have us sacrificing our responsibility to develop our deeper humanity at the alluring altar of short-term emotional gratification.

Being human, we all need some level of comfort that comes with belonging to a community that holds our most cherished beliefs. Our human nature compels us to seek out and find like-minded enclaves of intellectual and emotional support. But problems arise when we become over-attached to a need for the comfort of reassurance to the point of losing our capacity to challenge ourselves and to appreciate having others challenge us.

If we spend too much time in like-minded environments, our ideas become reinforced to the point that we see little or no need to question our assumptions, to challenge our ideas or to explore the larger implications of our position. We come to rely upon feelings of emotional comfort and support to the point that any challenge to our position or thinking is received as an unwelcome intrusion. Our capacity to hold ambiguity can erode as we become disinclined to endure any unsettling tension. We easily slip into mistaking our thinking as an accurate representation of the world. We confuse our safe harbor micro-world environment as indication that we are actually correct, that we hold the truth and those who disagree are either misguided or misinformed. We risk becoming dismissive or resentful of any ideas that would offer a serious challenge to our thoughts or position on issues. We may fall into the trap of using our critical thinking skills more narrowly and selectively in service to our growing dependence

upon our emotional and intellectual comfort. What was once a temporary respite, a calm and reassuring safe harbor from the turbulent seas of volatility and ambiguity becomes a stagnant and confining lagoon, reeking of self-serving critical thinking.

Mindful critical thinking can help us to distinguish between illusions of righteousness arising from more immediate needs for self-centered social validation on one hand, and a deeper sense of moral integrity and accountability on the other. We must acknowledge our human need for belonging, reassurance and self-protection, but also be mindful of our egocentric tendencies toward self-deception. We can find these resources within our culture to learn and know the difference if we dig deeply to mine the higher self that exists within each of us. We can develop a healthy balance between our need for social support and community on one hand, with the challenge of continually attending to our natural tendency toward self-deception on the other.

"Take the big view of what is most important in this and future lifetimes: to become stronger and more realized in serving others. Take care of yourself, but don't hide behind the false security of self-protection."

- Sakyong Mipham Rinpoche

"If you base a society on a conception of self that is about achievement, not character, you will wind up with a society that is demoralized; that puts little emphasis on the sorts of moral systems that create harmony within people, harmony between people and harmony between people and their ultimate purpose."

- David Brooks

About Emotions

Emotions are a very powerful force, not only within ourselves but also in how they influence those around us. From Plato in ancient Greece to Mr. Spock in Star Trek, emotions and passion have often been portrayed as the enemy of reason and rational thought. And while strong emotions can certainly interfere with a deliberate thought process, this need not be the case. I believe that suppressing emotions is shortsighted. Pushing emotions into the background compromises the development of our emotional sensitivity and so a dimension of our humanity. Being human means that we need to recognize, accept and embrace our humanity in all its dimensions.

A mindful take on critical thinking gives us permission to fully embrace our emotional selves. We can experience our emotions and then temper them with critical reflection. We can be the observer of our emotions *without being taken over by our emotions*. As with our thinking, we need not become our emotions. We can bear witness to our emotional energy without being consumed by it. Observing our feelings and emotions while giving them over to a mindful take helps us to recognize, distinguish, articulate and grow from our emotional experiences.

Building our capacity to mindfully study our feelings allows us to fully experience our emotional energy without being caught up within it, carried away by it, and acting out upon it. As a mindful observer or witness of our emotions, we are aware that they represent our inner take, our reaction to outer events. To what extent do our emotions arise from a sense of ego? To what extent are our emotional reactions habitual, based in unhealthy patterns of emotional attachment? People can sometimes grow an addiction to emotions like resentment, anger, rage and jealousy. The emotional feelings coming up within us are *ours*; they arise within our interior world, but may also be taught, passed along culturally or generationally. A mindful viewpoint helps us to recognize that our inner emotional response may not always align with an outer reality. It allows us the space we need to reflect upon our emotions. We can learn to carry and fully respect our emotions without being carried away by our emotional energy.

As we all know, emotions can offer both positive and negative energy. Our emotions and visceral reactions can be a very important window of honest insight into ourselves. But we must have the presence of mind to observe our emotions as they arise within us before we act outwardly. Without denying what is happening within us, but also without being carried away or acting upon our emotional energy, we can observe our reaction and examine it: Where is this feeling coming from? Why am I feeling this way now? What does my reaction tell me about myself? Is this inner feeling the basis for an appropriate outward response to the situation at hand? If I act out on this energy, will it damage or abuse others?

Emotions are one dimension of how we participate in the larger world. In short, a mindful take on critical thinking allows us to experience emotions as a source of powerful learning and as a window of insight into ourselves. We can become more nuanced in our emotional reactions, observing ourselves as we react within before we act outwardly. Such practice also helps us to better understand, empathize and appreciate the emotions of others.

As mentioned earlier, it is often easier to deceive ourselves than those around us. This is not to demean ourselves as walking distorters of reality, but rather to recognize the need to open up space within our mind to observe and learn from what is happening within us. By experiencing and examining our emotional impulses for what they are, as they happen within the moment, we gain insight into ourselves. If we experience rage and anger as a result of what we see as injustice, we can examine our emotional response in terms of our sense of justice. We might ask what sense of justice might be carried by the perpetrator that would allow them act in a way that strikes us as unjust. We may choose to inquire about their basis for action rather than attacking their inner character. At other times we might observe within ourselves what might be an over-reaction to a situation. Perhaps our emotions come from unexamined assumptions within ourselves. We can catch ourselves before we act out, recognizing that we hold the power to hunt and surface our hidden assumptions. We can recognize this as part of our human nature and smile in acknowledgement of our inner reaction as an imperfect human being. We can check ourselves before we act in ways we might later regret. We can also commit to learn from the episode.

Emotions can be very important in the quality of our relationships with other people, animals, plants, land and other aspects of our surroundings. Emotions help us connect with our environment as participants in the world. If we cultivate our capacity to observe ourselves mindfully, over time we learn to temper and redirect undesirable emotional energy while cultivating positive emotions and passions, using them constructively for our own benefit and for the benefit of others.

I offer an American Indian parable of The Two Wolves:

One evening a Cherokee Elder spoke with his grandson about the battle that goes on inside people. He said, "My son, the battle is between two Wolves inside us all. One is anger, envy, jealousy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, false pride, superiority and ego. The other is joy, peace, love, hope, serenity, humility, kindness, benevolence, empathy, generosity, truth, compassion and faith." The grandson thought about that for a moment then asked his grandfather, "Which wolf wins?" The grandfather simply replied, "The one you feed."

~ Unknown

Unfortunately, recent events show us that there is much money and opportunity in feeding people negative emotional energy. We see in today's social media contagious threads of shallow, simplistic and boorish narratives. What do we choose to feed ourselves, emotionally speaking? We must honestly ask ourselves if the temporary emotional salvation that one experiences in a diet of talk radio or cable TV is in our long-term best interest. Developing our humanity means that we need to recognize and accept that we have inherent limitations and shortcomings in how we think, in what we decide and in how we act. Humility is recognizing and accepting our emotional tendencies and fallibility. But we have within ourselves the capacity to transform negative emotional energy into positive emotional energy. We can appeal to our higher selves amidst environments of degrading discourse. We can develop within ourselves the capacity to elevate our thinking and actions. We can choose how to act, drawing the strength from within ourselves to be courageous, perseverant, fair-minded and compassionate, learning to act with integrity. These higher virtues cultivate positive emotional energy that can feed ourselves and others around us.

"To be a spiritual warrior means to develop a special kind of courage, one that is innately intelligent, gentle, and fearless. Spiritual warriors can still be frightened, but even so they are courageous enough to taste suffering, to relate clearly to their fundamental fear, and to draw out without evasion the lessons from difficulties."

- Sogyal Rinpoche

About Intuition

Intuition implies a sense of direct knowing, an inner sense of immediate apprehension without a rational explanation of how it came to us. At times, we may experience a genuine intuition, we simply know. Many times though, we fall victim to our human tendency toward bias, wishful thinking and projection, confusing our hopes or egocentric preferences with intuition. This is tricky territory, as intuition is a favorite disguise for our almost endless capacity for self-deception. Still, I believe it worthwhile to explore the needle of genuine intuition that we might find within the haystack of self-deception. What exactly do we mean by intuition?

"Intuition is a process by which non-local information, normally outside the range of conscious awareness, is immediately sensed and perceived by the body's psychophysiological systems. It is not based on reason, logic, memories or extrapolations from the past. Experience of intuition is not confined to cognitive

perception, but primarily involves the heart and the entire psychophysiological system.”³⁰ Put simply, intuition is direct knowing, not the analytical thinking discussed already. Intuition can come as an expanded state of awareness within us, a way of knowing beyond rational thought³¹. Genuine intuition has been described as a collective consciousness experience that manifests within the individual, embodied and associated with the heart³².

Some people believe that critical thinking is antithetical to intuitive knowing. While at first glance this may seem reasonable, a mindful take on critical thinking asks us to be open to dimensions of our human possibility that may lie beyond the parameters of reason and rational analysis, possibilities that are not yet well understood by empirical science. The phenomenon of consciousness is not well understood by Western/analytical methods. We cannot expect all of human experience to be explained through or cohere with a rational understanding, even using the critical thinking frame presented earlier.

I believe that if we develop the capacity within ourselves to practice critical thinking in its deeper, more mindful sense, we can remain open to our intuitive dimension while still recognizing our ever-present capacity for self-deception. Mindful critical thinkers are also intellectually humble, recognizing the need for paying attention to the limitations inherent in conscious analytic thought, even when one’s conscious thought is guided diligently using the principles of critical thinking. Deeper sense, mindful critical thinkers are also open to and aware of the remarkable breadth and complexity of the human experience that cannot be captured by words or concepts. Our “active intellect”, as great a gift as it is, cannot hold all the mystery, meaning and awe of our full humanity. Thus, critical thinking represents an essential, but by no means exclusive path to human knowing.

Mindful critical thinkers are sensitive to the occasional need for our active mind to “get out of its own way”. We can cultivate the practice of silencing our mind and passively observing our thoughts without getting caught up in them or identifying too closely with them. Simple observation of the mind without getting swept away in the thoughts themselves is a means for cultivating greater awareness of one’s mind activity. Becoming aware of the torrent of our continual thought stream and becoming aware of when we get swept away in the current of

³⁰ <http://lifesciencefoundation.org/07Ways08.html> 2007

³¹ Franquemont, S. Cultivating Intuition. <http://lifesciencefoundation.org/07Ways08.html> 2007.

³² Franquemont, S. Exploring intuition and health care. Workshop, Minneapolis, MN, 2017.

our thoughts can help bring us back to shore as a conscious observer of our thoughts. As an observer from the shore, it is easier for us to recognize and open the moments between thoughts. This stillness or awareness allows for openness and receptivity to our intuitive dimension and our intuitive episodes.

The Western scientific traditions of the modern mind still hold at their core the ideals of objectification and subject/object dualism. The resultant sense of self-consciousness (self as separate and independent from nature) has done much to overshadow a deeper participatory consciousness common within indigenous cultures³³. Many indigenous cultures maintain continual participation with the natural creative process of nature as central to their ways of knowing^{13,34}. Many see creation not as just an historical event, but as an ongoing and continuing process of unfolding. Full-mindedness is a union of intellect and intuition, of left and right brain, of thought and perception, recognizing that exclusive reliance upon analytical intellect limits the scope of human experience, knowledge and understanding^{13,20}. Recent studies also point to a remarkable human ability to subconsciously integrate large amounts of information and to a potential to make good decisions based on intuition¹⁸.

With many of us caught up in our thoughts as we try to cope in modern society, our intuitive ability has atrophied and needs cultivation. Such cultivation has its own discipline as understood within many different contemplative traditions. However, recognizing one's intuitive potential should not lead us to consider this dimension as a "magic bullet" for short-term answers to urgent questions. Once again, what may seem as intuition can be disguised egoistic thought or wishful thinking. We easily deceive ourselves through ego-derived thinking. It is therefore very important to bring a healthy sense of humility and openness to our intuitive development.

"If you just sit and observe, you will see how restless your mind is. If you try to calm it, it only makes it worse, but over time it does calm, and when it does, there's room to hear more subtle things - that's when your intuition starts to blossom and you start to see things more clearly and be in the present more. Your mind just slows down, and you see a tremendous expanse in the moment. You see so much more than you could see before. It's a discipline; you have to practice it."

- Steve Jobs

³³ Barfield, O. Saving the Appearances. London, Faber & Faber, 1957.

³⁴ Cajete, G. Native Science. Santa Fe, Clear Light, 2000.

About Cultivating Wisdom

As with mindful critical thinking, the work of cultivating wisdom must come from within. Mindful critical thinking offers us a path toward wisdom. What does it mean to be wise? Upon viewing our capacity to wage nuclear war, the famous WWII general Omar Bradley is said in 1948 to have declared: “*We have achieved brilliance without wisdom*”. His comment distinguishes intelligence in developing powerful technology from intelligence in improving the human condition. “Good judgment, common sense, and an understanding of what is true, right or lasting” is a definition offered by Webster³⁵. A good start perhaps, but the concept of wisdom runs much deeper than this simple definition. Wisdom is a human quality developed over time that transcends information, knowledge and even understanding. Describing some dimensions of wisdom may help.

An experiential dimension of wisdom requires a willingness to learn from life’s lessons *and to be transformed in the process*. The transformation involves pursuing human good and in bringing forth the best of humanity from within oneself. Consider again the Parable of the Two Wolves (p52). In which direction do we allow societal messages to direct our behavior? To what extent are our aspirations inconsistent with our actions? Toward which wolf are we transforming our lives? Toward peace, love, hope, humility, kindness, empathy, generosity and truth? Or toward superiority, ego, envy, jealousy, greed, arrogance, guilt, resentment, lies and false pride? In this regard, wisdom and self-deception represent opposite ends of the human development spectrum.

I have found much wisdom among individuals who have experienced great pain and hardship. Wise individuals carry an inner truthfulness and uncompromising honesty in their observations of and conduct within life situations. Wise people are able to tap into inner resources of psychological and emotional growth. Self-transformation over one’s lifetime is a central feature of cultivating wisdom. Difficult life experience can be transmuted into empathy and compassion for others. Over time, one can cultivate appreciation for others and gratitude for life while lessening the experience of indifference or negative emotions and energy toward others.

A cognitive dimension of wisdom includes an understanding of life, a desire to

³⁵ Webster’s II New College Dictionary, Houghton Mifflin, Boston, 1999, p 1267.

know truth and comprehend the significance and meaning of events. Cognition and intelligence alone might make for a good scientist or business person but is no guarantee for wisdom. Technological expertise in itself does not cultivate wisdom. Academic expertise is neither necessary nor sufficient for wisdom. Academic expertise, if too narrowly or excessively relied upon, can even pull us away from wisdom. Strict conformity to convention or orthodoxy is no guarantee for wisdom. Individuals with an ultimate goal of more power, wealth, fame, etc. rather than the quest for truth, will likely feed their self-centered impulses. Such people are unlikely to be characterized as wise if their self-centeredness prevents them from developing sympathy and compassion for others in a broader context of justice, shared deliberation and the pursuit of the common good, the flourishing of nature and human harmony with nature.

Development of wisdom requires the kind of self-examination, self-awareness and self-insight that is described in mindful critical thinking. The practice and development of intellectual virtues described above (humility, courage, empathy, integrity, perseverance and fair-mindedness) represent a path to wisdom if these virtues are mindfully cultivated, practiced with discipline and sustained over many years.

The stated mission of our educational institutions are focused around expanding and communicating knowledge but are largely silent with respect to cultivating wisdom. Nicholas Maxwell points to an historical ethos within the academic world that he paraphrases as the “philosophy of knowledge”³⁶. Academic inquiry aligned with this ethos has a primary goal to improve objective knowledge about the world. This philosophy, according to Maxwell, has served to disconnect the intellectual problems and aims of producing knowledge and technology from the social problems and aims of human flourishing.

He presents an alternative mode of inquiry, paraphrased as “the philosophy of wisdom”. This ethos recognizes the primary aim of human inquiry is to help people to realize what is of value to them in living a good life. It holds that our inquiry must give absolute intellectual priority to our life and its problems, to the mystery of what is of value in pursuing human good and to the problems and deliberations of how what is of value is to be realized. He argues that social progress should not be distinct and separate consideration from the intellectual progress of science (knowledge of truth about the world).

³⁶ Maxwell, N. (1984) *From Knowledge to Wisdom: A Revolution in the Aims and Methods of Science*, Blackwell Press, Oxford, pp15-75.

I find that while knowledge advancement within the sciences is often justified through potential promise of social benefit, such benefits are often considered within a quite narrow perspective. The financial imperatives of technocratic approaches easily conflate with our ideals of human benefit and distorts ideals of objectivity. Wise deliberation (of GMO technologies and associated issues of intellectual property, for example) would become a much more fundamental and primary task than the more straight-forward task of developing and deploying new technologies. The rapidly growing family of action research practices and orientation to human inquiry are well aligned with a philosophy of wisdom.³⁷ In this regard, indigenous sciences have much to offer in moving toward a philosophy of wisdom³⁸.

Steps toward Mindful Critical Thinking

Some suggestions are outlined below to help you develop your thinking skills in everyday life situations. Read through these suggestions and begin to apply them. Spaces of public deliberation are excellent practice grounds. Share your experiences with someone you trust and discuss those incidents that are challenging. Remember that no one has completely mastered this process and life's challenges are opportunities for you to continue to improve thinking.

- **Treat your first reaction** to a situation, issue or person as temporary and superficial. Resist the urge to pass judgment based only upon initial reactions. To what extent have you listened mindfully? To what extent have you observed carefully?
- **Examine your reaction.** Try to understand why you reacted the way you did. Notice your emotions. What do your emotions tell you about yourself? Was your reaction a conditioned response? What assumptions were you making? What previous life experiences contributed to your reaction? How might you re-think your reaction?
- **Is the issue clear?** Is your understanding of the issue clear? If not, can it be broken down into manageable questions? Many problems are vague and require effort to identify. Do not assume that your perception of the problem is shared by all.

³⁷ The SAGE Handbook of Action Research. (2015) H. Bradbury H. Sage, Thousand Oaks, CA.

³⁸ Robbins J. Native Knowledge: What Ecologists are Learning from Indigenous People. <https://e360.yale.edu/features/native-knowledge-what-ecologists-are-learning-from-indigenous-people>, Accessed April 30, 2018.

- **Think of alternative responses** to the person, situation or issue. If you feel strongly about the issue, try to step into another point of view and try to reason empathetically within that alternative perspective. Use that perspective to challenge your own position and identify your hidden assumptions and biases. Be as open-minded and fair-minded as possible when considering the possibility of another perspective or point of view.
- **Do you know enough to decide** among alternatives? Must more evidence be gathered? What kind of information is needed? Often it is not immediately apparent what additional information is needed or where to find it. How much evidence is enough? Remember that no evidence is beyond question.
- **Which interpretations or alternatives are best** supported by the evidence?
- **Distinguish between the person and the idea.** Distinguish between personalities and what people think. Remember that interpretation of evidence is a subjective process.

I find non-judgmental observation to be extremely helpful in developing my own critical thinking skills. If I can observe my impulses to rush to judgment as I go about daily life, I am more likely to be able to examine these impulses without being subconsciously caught up in them. Catching myself in the moment, as challenging tensions and strong emotions arise, is quite demanding yet offers excellent opportunities to develop mindfulness over time.

With commitment, perseverance and disciplined practice, mindful critical thinking helps us to become aware of any judgments that arise in our mind before we act impulsively. If we are disciplined self-observers, we may be surprised with the frequency of judgmental thoughts occurring. If this is the case, do not judge these judgmental impulses! Just notice them and be aware that they happen. We can use our critical thinking skills to selectively examine any of these thoughts at a more appropriate time.

Another very important application for mindful critical thinking rests within the public sphere. Moving one's capacity for mindful critical thinking from the private domain to the public sphere of talking and thinking is especially critical at this point in time. Our democracy is currently threatened by a highly polarized, toxic form of adversarial politics. While conflicting interests among people are inevitable in a large, complex society, it need not lead only to self-serving thought motivated by fear and anger. Mindful critical thinking can be practically

applied in cultivating civic renewal and lifting up a new ethos of reasoned conversation among people of good will.

The Kettering Foundation uses the word *deliberation*³⁹ to refer to constructive public discourse around complex issues. A deliberative public politics contrasts sharply with the polarizing and divisive politics as usual. When we step into a public space and put into practice the intellectual virtues and qualities described above, a more empathic and compassionate dialogue can ensue that offers insights that help move the tone of conversation beyond the more common adversarial politics.

Benefits of Mindful Critical Thinking

If we did more critical thinking we would:

- Be inclined to be more honest with ourselves and to more readily admit that which we do not know.
- Be less afraid to say "I was wrong".
- Be more able to learn from our mistakes.
- Not simply accept beliefs passed on to us by others who are in authority. Our beliefs would gradually become a product of our own critical reflection.
- Become more aware of the extent to which our thinking has been influenced by our cultural environment.
- Reflect carefully upon the values we hold.
- Have the courage to pay attention to the "inner contradictions" we all experience; the inconsistencies between what we espouse and how we act in the world.

Mindful critical thinking also helps us to cultivate the ability to imaginatively put ourselves in the place of others and to better understand the viewpoints of others as they would have us understand. We would be more open to preparing ourselves to fair-mindedly consider systems of thought culturally different from our own; those with different presuppositions, attending to different dimensions of nature with different value outlooks. At the same time, we would develop our capacity to excavate our deeply-held assumptions and to fair-mindedly examine these assumptions. We would invest in developing our capacity to tolerate and

³⁹ Barker D and Brown DW (editors) *Higher Education Exchange*, Kettering Foundation; 2017.

hold difficult truths, to listen with an open mind, even to conflicting and contradictory points of view. We would have the patience to think before acting.

We would tend not to suppress our feelings rather, our visceral reactions would alert us to significant learning opportunities that can be productively mined if we critically reflect upon our reactions and observe our emotions. Our emotions would be less likely to cause us trouble; we would develop ways to sort through our feelings and constructively harness our emotions.

We would strive for a better understanding of issues, resisting "quick fix" solutions. We would hold ourselves to high standards of thinking, and we would look for these standards in the thinking of others. We would recognize where we and others fall short of these standards. As Stephen Brookfield has stated, "though the challenge of improving your thinking is great, no other kind of self-improvement can affect every area of your life so positively."

Additional Reading

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Why Culture? Why a Cultural Lens?

Introduction

Now that we have a greater appreciation for a mindful take on critical thinking, let us turn our attention more directly to how culture influences our thinking and actions. When we use the term culture, we are talking about that which is shared among groups and collectives. Webster defines culture as “the totality of socially transmitted behavior, arts, beliefs, institutions, and all other products of human work and thought”⁴⁰. When we think of culture, we tend to think of its more tangible expressions like foods, language, clothing, art, music and demographics. We also know that culture runs deeper, including subjective dimensions like manners, rules of conduct, family roles, humor, concepts of justice, and value priorities. But we can’t stop here. Culture runs deeper still. Culture includes shared meaning and behavior, how we see, organize, interpret and act within the world around us. This organizing process is often subconscious, so it can be difficult to recognize, especially when we are surrounded by people of a similar culture. Already, we can see that culture has many layers of complex interaction. Think for a moment: How do you identify culturally?⁴¹

Let’s return to the definition of culture from the Cultural Wellness Center in South Minneapolis⁴²:

“Culture consists of practices that people create to give themselves continuity and cohesion across generations. Culture consists of a set of highly patterned, unspoken implicit rules, behaviors and thoughts which control everything that we do. A people, peoplehood is at the core of culture.”

Continuity and cohesion are needed to make sense of the world. Culture is what supports how we frame and construe the world. This definition also includes

⁴⁰ Webster’s II New College Dictionary. New York: Houghton Mifflin; 1999, p.274.

⁴¹ This is a question asked in Healing Roots workshops, an organization that helps in creating healthy cultural identity, ending structural racism and interfacing with other ways of knowing the world.

⁴² Cultural Wellness Center, 1996. Cited in: *Moving from Race to Culture. How Does Culture Equalize the Privilege or Consequence of Race?* Sept, 2015.

“unspoken and implicit” dimensions. From an early age, we absorb ideas and beliefs from those around us. We automatically and unconsciously adopt narratives and norms based on the values, conduct and priorities of family and friends. To the extent these narratives are shared, they can become taken for granted and so become implicit. As we mature, we naturally gravitate toward like-minded groups where narratives and perspectives are shared, where we feel a sense of comfort, cohesion and reassurance. The more we are surrounded by people sharing a similar culture, the harder it becomes to “see” our culture.

For example, in mainstream society, most of us take for granted the concept of “rectilinear time” - time is linear and proceeds from a past beginning through the present to a future. Today, time is often viewed as a scarce commodity - “time is money”. When I take a job, I am expected to buy into these views; in this way “time is money” becomes normalized, institutionalized as a reality that we and others should share. But not all cultures share this concept of time.

Each fall, I take classes up to White Earth Reservation community to experience a traditional Anishinaabe ricing camp weekend. The students step off the bus and into a community sharing very different concept of time. Time is governed by events, not so much a clock. An elder teaches students to parch wild rice in a cast iron kettle braced over a fire. Students use a canoe oar to stir the wild rice with the elder’s guidance. “How long does it take?” a student asks. “As long as it takes”, the elder replies. “What time is breakfast?” “When it is ready” is the reply. The camp has a very different rhythm regarding time. Things run smoothly but without urgency. Many a visiting student has commented on their newly illuminated dependence on clock time.

It is through shared narratives about time, progress, success, etc. that we learn to understand and know our place in the world. If these teachings and experiences are widely accepted as representing “the way things are”, they become foundational in our thinking. This sub-conscious acculturation process creates within us a set experiences and ideas of what reality is and how things should be. As another example, consider another statement from an elder at ricing camp:

“While mainstream culture teaches ideas that success is based upon what one is able to accumulate during their lifetime, Anishinaabe cultural tradition teaches that success is about what one gives away in life”.

- The late Earl Hoaglund, Cultural & Spiritual Leader, White Earth Nation

We are highly cultural beings in ways we are often unaware or under-appreciate. As we internalize culture, we are often unaware of the extent to which we, as individuals, are shaped and influenced by culture. Our thinking as individuals is often subconsciously shaped and governed by collective cultural norms and narratives. We carry this internalized culture with us into our work life and our societal institutions. Internalized culture permeates the structure and organization of our institutions (*education, health care, legal*) in ways we tend to normalize, take for granted and therefore overlook.

An Indigenous Elder from Fon du Lac community in northern Minnesota once said to me: “When an Indian walks into the woods, he is walking into a grocery store”. He uses his senses and sensitivities to identify which plants/animals are available and appropriate for food. The statement implies finely tuned knowledge that enables him to survive and flourish in what I might term “wilderness”. My relation to the woods is quite different from that of the Elder. The statement also has implications for the loss of human knowledge and sensitivity that has accompanied our “progress” to a modern consumerist culture symbolized by a grocery store.

Much of the culture we carry within us lies beneath our conscious awareness. Because of the deep and implicit dimensions of internalized culture, mindful critical thinking helps us to study ourselves, to gain conscious awareness of how culture shapes us as individuals as well as to gain awareness for how culture permeates and structures our institutions and organizations. If we are serious students of ourselves and our culture, we need to make concerted effort to see and surface the culture embedded within ourselves and our institutions.

When a particular culture (like our mainstream US culture) becomes highly accepted and dominant, it often becomes normalized as a reference point for “how things should be”. Assumptions of those norms as universal become commonplace. The prevailing norms are often imposed upon other cultural groups, who then experience pressure to assimilate (adopt) these norms. These institutional norms can often conflict with the norms of other cultural groups. The resultant cultural conflicts are disproportionately felt by representatives of the marginalized cultures. Cultural misunderstandings can become frequent, but are less often perceived, experienced or understood by members of the mainstream cultural group. This affects a community’s relationship to and experiences with legal systems, healthcare, schools and education, law enforcement and yes, food and nutrition programs. Thus, the experiences of

those “normalized” within mainstream culture can be quite different from the experiences of individuals from cultural groups outside the mainstream culture. The societal costs of overlooking these dynamics, of carrying forward unresolved cultural and historical injustice and misunderstandings are significant. Significant health, education and economic inequities become systemically woven into the fabric of our society.

Complicating matters still further, our history in the Americas over the past 500-plus years is one of colonization, imperialism, genocide and slavery⁴³ where physical brutality and psychological violence were routinely imposed. We are a highly racialized society and often look at issues through a lens of racialization rather than a lens of culture. The brutality of this history, this “original sin” of colonization is one which we have yet to fully confront, acknowledge and come to terms, let alone begin to substantively reconcile. This unresolved history continues to echo throughout our mainstream culture. For the groups most disaffected, the echoes are loud and clear, while they are difficult to see or even fathom for many who identify with mainstream culture. Our highly racialized society, founded upon this violent history, carries forward profoundly different cultural experiences that undermine superficial attempts at coming to intercultural understandings.

This is important as we live today in an ever converging global village. Unlike most of human history, modern society and technology now bring us into intercultural interactions as a commonplace, almost everyday occurrence. We have highly complex, multicultural societies and ever-increasing intercultural interactions. This has been true within many urban areas for years, but is more recently prevalent with immigrants moving into more rural areas. I believe the so-called “culture wars” we hear about are the result of some people feeling that their way of life and their culture is threatened by recent demographic changes and an uncertain future. I see these fears as often grounded in a racialized cultural identity. One approach we see is taking measures of exclusion; to reduce intercultural interaction through policy aimed to restrict immigration and strengthen national border security. A more inclusive approach is to further develop our capacity for positive intercultural interaction. The latter approach involves developing:

1. Well-grounded and healthy cultural identity by understanding the depth and power of cultural resources within onself, others and institutional systems;

⁴³ Zinn, H. *A People's History of the United States. 1492-Present.* HarperCollins, New York; 2003.

2. Capacity to engage in mutually beneficial intercultural interactions.

In other words, we need to sharpen our cultural lens, develop our cultural sensitivity and gain practice in intercultural relationships.

Despite deep and unresolved misunderstandings and the enormous price paid by exploited cultures, the United States has nevertheless greatly benefitted from its history of immigration through the highly innovative capacity that comes from and with a plurality of cultures. Common ground and level ground is attainable and offers a basis for a healthy interaction where everyone benefits from mutual understanding. There is reason for optimism if we can elicit the best within ourselves. From here, we can direct more deliberate attention to better surface, understand, unravel and navigate our cultural differences and complexities.

In my view, this challenge has become one with significant planetary implications. Especially for those of us of European American heritage whose experience does not include these difficult intercultural realities on a daily basis, mindful critical thinking can help us to better decipher the complexities of a multicultural society, both with respect to differences and similarities. We cannot hope to meet these challenges if we feel threatened by the presence of other cultures and do not see the culture we carry within ourselves. All cultures carry both valuable resources and practices in need of transformation.

I believe a good starting point is in learning to make what is invisible or implicit more apparent and explicit. Our work is to direct our conscious, mindful attention and thoughtful deliberation toward those aspects of our culture that: 1) We value and hold as resources in how to live a good life; and 2) Those practices that are unhealthful, unjust and unacknowledged dimensions of our culture in grave need of transformation. I believe many of our current struggles with racism, poverty, police violence, war and occupation, violence against women, and environmental justice, to name a few, are the result of a gap in our capacity for mindful critical thinking and sensitivity toward culture.

Developing a Cultural Lens: Case Study

A case study may help to illustrate how developing cultural awareness is a process that requires time and mindful critical thinking/reflection. I offer my own experience in the hope it can be helpful in understanding the importance of this process.

For the first 35 years of my life I saw no need to give my own culture any serious consideration. Growing up in a relatively affluent, suburban, almost exclusively mono-cultural Midwestern environment, I had virtually no contact with any culture outside of what I had normalized as my own experience. From a young age, the ideas I learned about time, progress, productivity, responsibility, self-control, my role as a male etc., were simply absorbed, taken for granted as the way life should be. I gave only a very occasional, passing thought to my own identity or to my cultural heritage. Although I saw myself and those around me as “white”, I was oblivious to the institution of “whiteness”. I had no apparent need whatsoever to concern myself with the idea of culture. An explicit cultural frame was absent from my consciousness. I considered my experience “normal”.

“The way things were” in this environment represented to me the true and correct way of living. The relatively comfortable “standard of living” I experienced was taken as validation that the norms I grew up with, characteristics like hard work, responsibility, stoicism, individual autonomy and material success were the model for “how things should be”. This general cultural experience has been described as WEIRD (Western, Educated, Industrialized, Rich and Democratic)⁴⁴. Does WEIRD represent the universal standard or model for what a human experience should be? I grew up believing this was so. I had no other exposure or reference point for comparison, save for the occasional second- or third-hand stereotypes of other cultural groups presented in the media, or by some of my relatives.

For me, none of this changed in any substantive way as I went to university in becoming a professional nutrition scientist. Through more than 10 years of higher education in the food and nutrition sciences, virtually no attention was given to understanding the historical roots and the broader cultural context out of which these disciplines arose. The culturally grounded “Western thought and modernity” into which these modes of inquiry were embedded were simply taken for granted as representing the only reality that mattered. Disciplinary content was repeatedly presented again and again as settled scientific fact, a set of universal truths tied to natural laws divorced from any cultural context. I understood myself to be studying biological and biochemical realities, not culture. Understanding metabolic pathways and new technological developments reigned supreme. Other than the most obvious tangible expressions of culture such as foods, cooking methods, clothing and language, the culture that was carried

⁴⁴ Heinrich, JS et al. The Weirdest People in the World? *Behav and Brain Sciences* 33:61-83, 2010.

within the food and nutrition science disciplines and the culture I carried within myself was completely overlooked. I had little, if any insight that our food and nutrition disciplines themselves represented cultural constructions. Further, because the disciplines I studied presented themselves as dealing directly with reality, there was no need to give serious consideration to what other cultures might have to offer. Given this context, it is little surprise my training lacked strategy, methodology or pedagogy for appreciating or interacting with culturally different understandings of food and health relationships.

As a young scholar in food and nutrition, I was sensitized to objectify foods in terms of functionality or composition. Food as nutrients. Food as commodity. Food as fuel. Food as bioactive molecules. Substances within foods determined their health impacts. Accordingly, foods were studied by removing them from their naturally occurring context. The way to better understand food was to understand its basic structure, drilling down to physical composition and fundamental characteristics. I absorbed this decontextualizing thinking pattern and developed a sensitivity to the mental process of “drilling down” or reductionist thinking. Under the influence of a pre-medical program of study, I was not schooled to appreciate or even recognize a broader, contextual dimension to food. I had developed little, if any sensitivity toward food as a relationship between people and place, food as holding meaning for people or as holding an intimate connection with the natural world. The lesson here is that what is invisible or subconscious in our thought can also be a quite powerful force governing our thought and actions.

I continue with an episode from my own experience of personal transformation:

When I first took my assistant professor position at the University of Minnesota, I was largely ignorant of my cultural or historical situatedness. That my office as a young professor on the Twin-Cities campus was, in fact, situated upon contested land⁴⁵ was never brought to my attention. Being blind to this history, I was also blind to any of its meaning or implications. Of course, I was not alone in this regard. I was part of a larger blind collective.

As a newly hired Extension nutritionist, I had responsibility to do

⁴⁵ *Minnesota* comes from the Dakota name for this region, *Mni Sota Makoce*--the land where the waters reflect the skies. The land of The University of Minnesota--Twin Cities was appropriated through a treaty drafted in 1805 but never proclaimed by the US President, nor its terms ever fulfilled.

<http://digital.library.okstate.edu/kappler/Vol2/treaties/sio1031.htm>

“outreach” work. This meant that I was to accept my role as a professional content expert, to deliver evidence-based nutrition understandings to communities throughout Minnesota. After several years, I chose to visit Indian reservations in Northern Minnesota owing to the high rates of diabetes, heart disease and obesity afflicting these communities. There I encountered communities sharing a keen interest in food and health relationships. But when I looked back within our food, nutrition and dietetics programs, representation from American Indian communities was virtually absent. I could not understand why this was so.

At the time, I was oblivious that these communities experienced and approached food and health issues in a fundamentally different way, with a different system of thought and different value priorities. I naively assumed (based on my formal education and personal experience) that the ways in which people perceived and interpreted the world was pretty much the same. Although I was a devoted practitioner of critical thinking, I lacked experience in encountering culturally different worldviews. In retrospect, I was not only ill prepared to recognize the dimensions of cultural difference that I was now beginning to confront, I was also unable to see the culture that I had inherited from my own education and professional training. I was culturally myopic; unable to recognize the cultural frame implicit in what I was taught, the value outlooks embedded within the scientific ideals and accepted approaches to scientific and academic inquiry. Looking back, it was fair to say that my cultural lens was poorly developed; I was indeed myopic from an intercultural perspective.

About this time, I met Joe LaGarde of the White Earth Nation. During my visits with Joe and Paul Schultz, who were to become good friends, I encountered Anishinaabe teachings that refer to Four Orders of Life. The First Order is Omizakamigokwe (Mother Earth), followed by Gitigaanan (Plants); then Awesiinhyag (Animals) and, lastly, Anishinaabeg (Human Beings). The teachings are simple - Earth, plants, and animals can exist without human beings, but human beings cannot exist without animals, plants, or the Earth. Therefore, human beings have a duty and responsibility to live in harmony and reciprocity with these older orders of life. The teachings explain that as the most recent arrivals on Earth, humans are the most dependent upon on all other life forms for survival, the least in tune with the rhythms of the natural world, and therefore have the most to learn about living in harmony and reciprocity with all

that is. As all else preceded humankind, we can be mentored by the world around us if we listen and observe carefully. On this basis, humans are considered in some ways the most pathetic or weakest beings in nature. At times during my visits to White Earth Nation, I witnessed people being referred to as “pathetic two-leggeds”, a simple reminder of the teachings. I was introduced to ideas that spirituality, sentience and conscious intelligence are not limited to the human brain, but exist throughout the body, environment and cosmos. In other words “we are all related”, that consciousness and sentience permeate all of nature.

As a scientist, I could have easily and summarily dismissed these ideas without a second thought. Such ideas were completely alien to campus culture and the professional discourse of my colleagues. They were incoherent from the standpoint of my professionalized worldview orientation. Further, they directly conflicted with my own implicit and inherited assumptions that conscious intelligence is something uniquely human; that as humans we sit atop the hierarchy of the natural world, and that the world is a collection of material objects to be used for human benefit. Yet the traditional teachings of seasonal foods and eating patterns, food as intimate connection to place and connection with healthful, pre-colonial foods all resonated with the most recent dietary guidelines and advice of nutrition science professionals.

This example offers a brief glimpse into the depth and significance of culturally different teachings and narratives. These foundational ideas offer a very different cultural frame from which to perceive, think and interact with the natural world. As I engaged Indigenous communities, I heard more narratives and teachings that were quite different from and often conflicting with the narratives I inherited from my schooling, those held on campus and within the academic societies in my professional circles. Anishinaabe cultural perspectives were not only unlike anything I had previously experienced, they offered fundamentally different alternative viewpoints that challenged many tenants of my professional training and identity.

To me, these Anishinaabe teachings from White Earth felt initially strange and foreign, almost alien, yet also seemed to hold a compelling degree of coherence. I found this dissonance somewhat uncomfortable yet fascinating. It challenged my own thinking in ways I had not experienced before. As an advocate of critical thinking, I referred back to the intellectual virtues of humility, empathy, courage, fair-mindedness, integrity and perseverance. I began to recognize the relevance

of these virtues in new ways. I felt compelled to try my best to enter Indigenous frames of understanding in order to more fair-mindedly navigate and negotiate these cultural chasms. I felt the need to bridge these worldviews, in part because I learned that wild rice (manoomin) was at the core of a long and difficult history between the University of Minnesota and the Indigenous Peoples of Minnesota. See the decision case study below:

The case below is based on a cultural collision that continues to this day. It is written as a decision case⁴⁶, asking you to step into a dilemma and make a decision about the next course of action. You are to empathetically enter into each perspective described below, using your imagination to align your thinking with the narrative to the extent you are able. What cultural differences in “worldview” do you notice?

Wild Rice Case - Scientist at “Research One” University

You are a scientist at a premier, publicly funded, land-grant, research university working in the field of plant genetics. You have had an impressive career at your university and have always pursued your research interests with little controversy. For the past several years your lab has occasionally researched the genome of wild rice (zizania palustris). This species is of interest as it shares genetic similarities with corn, a much more complicated genome. You have received funding to map the wild rice genome. One possible application of this basic research is to transfer traits (possibly through transgenomic processes) to and from white rice and other grasses in an effort to improve their productivity for economic benefit. The work could also improve the characteristics of wild rice for a few families of European heritage who are cultivating wild rice in patties as a cash crop—similar to the way in which white rice is now planted and harvested. Your work has more seriously engaged wild rice in the past three years. From your perspective, this research directly contributes to the university’s Land-grant mission to serve the public good through agricultural research, just as it has for over 150 years. The material world can better benefit human interests through good scientific research, and your commitment is to use plants simply as a means to improve the human condition.

⁴⁶ This case is a modified version of the original case study developed by Karl Lorenz, Director of the Office for Diversity & Inclusion, College of Agriculture, Food and Environmental Sciences, University of Minnesota.

Over the years, in the context of your work with wild rice, you have learned that a tribe in the region (Anishinaabe, Ojibwa) views wild rice as a sacred plant--central to their traditions, cultural life and spirituality. They are deeply concerned about your plans to potentially modify the genome--or pursue transgenomic work on the plant. In fact, they are opposed to genetic alterations of wild rice. You are confident that the privilege of academic freedom, extended to faculty with tenure at major universities, along with the centrality of this work to the University's Land-grant mission allows you the right to conduct this research. You have not seriously concerned yourself with the issues the tribe has raised--if they made the effort to better understand the science, they would see that this work is being conducted according to best scientific practice and integrity. Many public groups that are not fully informed complain frequently complain about research advancement. Isn't this the same as embryonic stem cell research? That also generates controversy. Still, research must go forward. Scientists have an obligation to generate new knowledge; we cannot be responsible for public controversy or its consequences. This research is legal and contributes to the public good. In addition, it is well accepted among scientific peer communities.

The tribe recently sent you and the President of the University a notice informing you that you are potentially engaging in an extremely harmful activity by altering wild rice. While the research has already substantially mapped the wild rice genome in preparation for other research, you haven't yet genetically modified wild rice, as there are no foreseeable funders for this transgenic work. Most recently, the tribe has demanded that you desist in all genetic research related to wild rice. They note that wild rice was important enough to their forefathers that a clause protecting wild rice was written into the treaties (still in effect) ending hostilities between the tribe and the United States in the 1850's.

For now, you have no inclination to acquiesce to the request of the tribe. You believe that you have the right to conduct your research. Further, you believe that the tribe doesn't understand your work and its potential impact to create a better version of white rice, and possibly a better version of wild rice that ripens all at once, has a stronger stalk, and thus can be more easily and efficiently harvested by machine. The "white, Euro-American" wild rice growers offer to support your continued research with funding and political influence.

To consider:

What do you do? How should you and your lab respond to the issues/demands of the tribe? Other research subjects have protections (humans, animals), should certain plants? How should cultural considerations be recognized in the context of research efforts? Is science culturally neutral?

Wild Rice Case - Tribal Community Leader

You are a tribal leader for a large tribe (Anishinaabe, Ojibwa) with reservation land holdings that encompass the needed cultural resources (medicine plants and other critical, cultural resources) for your people. It is your responsibility to ensure that the welfare of your community is maintained and improved. Your tribe has survived the cultural trauma of a genocidal colonization period, but you continue to suffer the impacts of ongoing attempts to force your community to assimilate into the mainstream and lose its cultural identity. The stories of your grandparents tell of the boarding school days when they were taken from their homes and forced into religiously run boarding schools. At these schools, native people were frequently abused and not allowed to speak their native language or practice familiar cultural traditions—drum and dance. Your community still suffers from neglect, historical trauma and poverty. A path to improved health, vitality and enduring source of strength for your People the integrity of your cultural traditions.

Your tribe has lived here for over six thousand years, and a ten thousand year oral tradition documents the migration story that brought your people to this very place. Here, you are in your promised land--the place where you were meant to be. At the center of your cultural prophecies is wild rice (manoomin--the “good berry” that grows on the water). Manoomin is present in all your ceremonies (birth, naming, death and all other major events). The Great Spirit came to your people long ago and gifted them a sacred relationship with the manoomin. Your oral tradition, reminds you that your People are the “Western Gatekeepers” whose task is to protect manoomin and maintain the traditions. While an important source of food and medicine, most importantly manoomin is a spiritual center in the life of your tribe, significantly defining your cultural identity. It was important enough that, at the time of treaty signing with

the US government (to halt armed conflict), your people wrote special consideration for manoomin into the treaty.

Your worldview acknowledges wild rice as a being with a spirit (as are all living things), and manoomin is part of the interconnected whole of life on mother earth—active, alive and intelligent. If the native stands of manoomin as given to your People in the lakes and rivers of your traditional lands, the spirit of manoomin will be fractured. You will have failed the responsibility of your tribe to your people, and the cultural/spiritual heart of the community will cease to beat. You are the last barrier to the full exploitation and possible destruction of manoomin. As a people where community and relationship with all things is critical, this would be the final act in a long a process of colonization resulting in cultural destruction.

You have learned that the public research university has mapped the genome of wild rice without any consultation from your People. The University scientists will follow the research dollars wherever that might lead, including altering the wild rice genome to domesticate it. In order to incorporate traits they have identified as needed to make wild rice a better crop, scientists at the university have considered the possibility of combining the wild rice genome with genetic material from other species. This work holds the possibility of irrevocably contaminating the manoomin your people have been tasked to protect.

To prevent this, you have sent the university a letter signed by the leadership of your tribe requesting that they stop all genomic work on wild rice. You explain that the manoomin is sacred to your people and has a spirit, but the response has been that “faculty have academic freedom” to pursue whatever research they deem valuable.

To consider:

What do you do? Does it matter if the university pursues its research interests? Do you have anything to gain from the research as you seek to preserve manoomin? What options for resolving this would you seek in order to prevent genetically modified wild rice from being developed and introduced? This case study holds a cultural collision and conflict that still continues as I write these words. What underlying cultural differences can you identify in the case?

Given this context, I had to ask myself about my own responsibility as a faculty member at the University of Minnesota. My work became that of engaging Anishinaabe worldviews by imagining and empathetically constructing a tentative understanding - a crude facsimile of sorts - of Indigenous values and experience as I interacted with people of White Earth Nation. Gradually, over months and years, this tentative understanding, this crude facsimile evolved, was modified, reshaped, re-crafted into a more refined, yet still far from perfect facsimile of an Anishinaabe worldview. I used this evolving facsimile to help me gain a cultural experience that more closely approximated the lived experience of those with whom I was interacting.

I refer to this methodology as cross-cultural engagement⁴⁷. The method helps me, as a professionally trained scientist, to develop and refine my capacity to move back and forth between culturally different systems of thought in ways that attempt to honor and uphold the integrity of each as understood from within its own cultural context. The wild rice decision case begins to illustrate the magnitude and depth of this challenge. A few years of travel on this developmental path helped me to realize how many of my own scientific beliefs were in fact cultural; what I had taken for granted was a frame that I had inherited subconsciously, a frame that was transferred to me, reinforced, and approved of by those with influence over me until it was embedded in my mind as a hidden, yet powerful foundational frame of reference. I began to recognize the power of unexamined assumptions in governing how I organized reality and in how I perceived the world. Attempting to engage Indigenous worldviews gave me a different perspective, a different location from which to make more explicit my own worldview orientation. I was able to look back upon myself with a viewpoint and experience that began to approximate how I was seen by the Indigenous communities whom with I was interacting. With time and continued interaction, I was able to more empathically imagine and enter into a more focused and refined estimation of an Anishinaabe perspective. I have found that developing this capacity is a lifelong developmental journey.

Until this time, despite my convictions to critical thinking, I had failed to question my most basic assumptions and beliefs because I did not recognize them as background assumptions. They were simply “the way things are”. This was especially true within the realm of professional scientific practice. I began to recognize the power and importance of an unexamined worldview orientation. It

⁴⁷ Hassel, C. (2005) The craft of cross-cultural engagement. J of Extension 43(6) #6FEA1. <http://www.joe.org/joe/2005december/a1.shtml>.

was this cross-cultural engagement practice and the insights emerging from the dialogical back-and-forth contrast that for me, held significant transformational power. It helped me to understand how this nebulous term “worldview” represents one of the deepest and most powerful aspects of culture, integral to our identity, to who we are and to how we make sense of the world.

Over the past 25 years, I have learned this: ***To truly appreciate what other cultures might have to offer, we must be able to see and appreciate culture within ourselves and our actions.*** If we do not see culture in our own thinking, in our own behavior, in our norms, values and institutions, we will be significantly limited in our understanding of ourselves as cultural beings. Often we are not aware of the extent to which our personal and practical experience represents a cultural construction. If we see ourselves only as autonomous individuals operating outside of a cultural context, we become culturally myopic with a tendency to expect other cultures to “be like us”⁴⁸.

In the case of many Euro-Western scientific disciplines, the aim is to generate academic knowledge that transcends cultural context. While there is no question that there are instances where this aim is achieved, presumptions of universality have been extended from the aims of science to the strategies and methodologies of the scientific enterprise. When scientific practice is presumed to transcend culture or as universal or acultural, we carry a tendency to see our knowledge as the only source of valid or legitimate knowledge. Our methods and protocols become a universal reference point for how to generate reliable human knowledge. The process of professionalization becomes culturally myopic with a tendency to expect other cultures to “be like us”. We make little or no accommodation for the existence of systems of thought that did not originate within Euro-Western academic models or institutions. We expect all individuals, regardless of cultural background, to conform to the mental models and methods used by professionals. Our myopia contributes to reifying our methods, strategies, our epistemologies and our worldview orientation. In essence, we institutionalize assimilation under the guise of “professionalization”. I have maintained that the process of professionalization need not be experienced as such a heavy-handed, forced assimilation project. If professional societies were to commit to collectively gaining a measure of cultural sensitivity, accommodations could be made for including non Euro-Western systems of thought like Indigenous worldview orientations. There exists an alternative process for

⁴⁸ This observation comes from *Healing Roots*, with over 20 years of conversations on culture with people of European American ancestry from largely educated and democratic backgrounds.

collectively navigating culturally different knowledge systems. I and others have called this navigation and negotiation process intercultural interfacing^{49,50}.

I will explore the intercultural interfacing process in greater detail later. For now, I suggest that there is a close relationship between interfacing cultural difference and building cultural awareness: Navigating significant cultural difference in worldviews leads to significant growth in one's own cultural awareness. If our life experience is drawn from a monocultural environment, it becomes quite difficult to see our systems of thought, our institutional practices, our legal and justice systems as cultural constructions and products of culture. Only later in life, having met with Indigenous Peoples and perspectives, was I able to become conscious of these more systemic, implicit tendencies and habits of mind. Only then was I able to become more aware of how powerfully I depended upon the subconscious filtering and meaning-making process that was highly shared and taken-for-granted within my profession. When we begin to challenge deeply held institutional worldviews, we are in a much better position to recognize and appreciate what other cultures have to offer. Let's explore in greater depth the concept of worldview as an important dimension of culture.

Engaging Worldview as Culture

Despite efforts to think for ourselves, and despite our highly individualist society, the impact of our culture is much greater than we often know or care to accept. We are encouraged and rewarded for belief and behavior that reflects what those around us believe, say or do. When these ideas are widely accepted, they become foundational, an implicit frame that is simply taken for granted as true and non-negotiable. This is called a "worldview". A worldview can be considered a socialized construction of reality.

Most of us are not conscious of our worldview per se. A worldview is not consciously learned so much as implicitly absorbed from our surrounding culture. We usually think *with* our worldview and *because of* our worldview. We do not often think *about* our worldview. Why would we devote attention to what is self-evident? In the example above, my worldview was penetrated and made more visible through intercultural interaction at the worldview level.

⁴⁹ Hassel, C. (2006) Woodlands Wisdom: A Nutrition Program Interfacing Indigenous and Biomedical Epistemologies. *Journal of Nutrition Education and Behavior* 38(2):114-120.

⁵⁰ Cultural Wellness Center. *Cultural Interfacing Framework*. CWC, Minneapolis MN, 2008.

As a scientist, I could have easily and summarily dismissed Indigenous worldviews without a second thought. Such ideas were completely alien to campus culture, to the professional discourse of my colleagues and even incoherent from the standpoint of my professionalized worldview orientation. But I was an advocate of a fair-minded critical thinking approach to higher education. I recognized that ideas considered dangerous or absurd are sometimes justified (in whole or in part) and that conclusions and beliefs inculcated within us are sometimes false or misleading. I had a commitment to extend myself beyond a passive and uncritical acceptance of what I had learned.

In this situation, I found myself called to do my best to enter into a frame of reference that was radically different than my own. This required a certain imaginative flexibility, an open-minded capacity to view the world more empathetically, to imagine myself viewing the world through the eyes of an Indigenous community member and to create some facsimile of this feeling and experience for myself. It was my good fortune to have been drawn to and intrigued by this challenge.

To engage in this kind of interactive process required that I hold myself open, that I engage in a kind of dialectic give and take, where resistance coming from my own worldview orientation needed to be diagnosed and given over to some critical interrogation. Early on I learned that there are well over 560 formally recognized Tribal communities in the United States alone. There is much diversity across Tribal communities, each having its own place-based practices, ceremonies and ways of living in nature. Many Elders, when sharing their knowledge, will preface their comments saying “this is how I was taught” or “these are the ways I learned”. Unlike many Euro-Western traditions, there is little attempt to describe knowledge as universal. The universe contains too many many mysteries. Yet there are teachings that are fundamental and seen as in accordance and harmony with the patterns of nature. So despite the great diversity among Indigenous Peoples worldwide (think of over 6,000 indigenous languages, each an “old growth forest of the mind”⁵¹), there are some generalizations that can be made across their collective voices in comparison with Euro-Western worldviews giving rise to modernity. With this caveat, consider the Table below offering a very much generalized contrast between Indigenous and Western/Eurocentric worldviews.

⁵¹ David, Wade. <https://www.youtube.com/watch?v=MGOJJWVFlyY>

Indigenous World View	Euro-Western World View
Spirituality is imbedded in all elements of the cosmos	Spirituality is centered in a single Supreme Being
Humans have responsibility for maintaining harmonious relationship with the natural world	Humans exercise dominion over nature to use it for personal and economic gain
Need for reciprocity between human and natural worlds - resources are viewed as gifts	Natural resources are available for unilateral human exploitation
Nature is honored routinely through daily spiritual practice	Spiritual practices are intermittent and set apart from daily life
Wisdom and ethics are derived from direct experience with the natural world	Human reason transcends the natural world and can produce insights independently
Universe is made up of dynamic, ever-changing natural forces	Universe is made up of an array of static physical objects
Universe is viewed as a holistic, integrative system with a unifying life force	Universe is compartmentalized in dualistic forms and reduced to progressively smaller conceptual parts
Time is circular with natural cycles that sustain all life	Time is a linear chronology of "human progress"
Nature will always possess unfathomable mysteries	Nature is completely decipherable to the rational human mind
Human thought, feelings and words are inextricably bound to all other aspects of the universe	Human thought, feeling and words are formed apart from the surrounding world
Human role is to participate in the orderly designs nature	Human role is to dissect, analyze and manipulate nature for human ends
Respect for elders is based on their compassion and reconciliation of outer- and inner-directed knowledge	Respect for others is based on material achievement and chronological old age
Sense of empathy and kinship with other forms of life	Sense of separateness from and superiority over other forms of life
View proper human relationship with nature as a continuous two-way, transactional dialogue	View relationship of humans to nature as a one-way hierarchical imperative

From: Barnhardt, R. (2000). Teaching/Learning Across Cultures: Strategies for Success. In R. Neil (Ed.), *Voice of the Drum* (pp. 167-176). Brandon, Manitoba: Kingfisher Publications.

The Table gives us a glimpse into contrasting worldview orientations. Interrogating one's own worldview can be dicey business as it often cuts into one's sense of identity. In my case, the kind of self-reflection invited by the Table above forced me to confront my own worldview as a European American and Christian cultural construction; in this case convictions that humans are superior to or with dominion over other life forms, and ideas of the human mind as the exclusive source of consciousness and intelligence in an otherwise objective, materialistic world. I began to recognize that the idea of consciousness as something uniquely human was not simply a straight-forward and direct representation of reality, but a deeply imbedded cultural idea that I held, reinforced through the teachings inherent in both my science and my spiritual background. These illuminations were both troubling and liberating. Troubling, because my own sense of identity was bound with convictions I was now beginning to question. My sense of cohesion and coherence was being disrupted. I discovered that self-reflection became more possible if I was able to dis-identify with ideas I had taken for granted and not previously questioned. By detaching my sense of identity from these convictions, I created room to more consciously and fairly examine them without feeling so much dissonance or defensiveness. Once I was able to navigate my own resistance and discomfort, I gained a sense of liberation, that new possibilities that might arise if I was able to look at these ideas from a different standpoint.

What is a Worldview?

James Sire describes a worldview as follows⁵²: “So what is a worldview? Essentially this: A worldview is a commitment, a fundamental orientation of the heart, that can be expressed as a story or in a set of presuppositions (assumptions which may be true, partially true or entirely false) that we hold (consciously or subconsciously, consistently or inconsistently) about the basic constitution of reality, and that provides the foundation on which we live and move and have our being”.

Consider these descriptions as a way to help you begin to grasp the concept:

“From the point of view of its adherents, a worldview is incontestable and provides the criteria for all thinking.”

⁵² Sire, J. (2004) Naming the Elephant: Worldview as a Concept. Intervarsity, Downers Grove, IL.

“A web of presuppositions, convictions and beliefs we hold that form the basis for how we perceive and comprehend the world.”

“A deeply lived experience which essentially determines how one feels, comprehends and responds in action to what he or she perceives of the surrounding world.”

Our underlying worldview greatly influences how we organize, see and interpret the world. It governs our priorities, our life experience, our fundamental values, our outlook on life, and our point of view that we express to others. It serves as a foundation for evaluating events and circumstances, providing criteria of acceptability. As young children, we usually accept as true the views of our parents and teachers. We are encouraged and rewarded for belief and behavior that reflects the norms of our worldview.

Frequently we believe that our worldview represents reality itself, is “correct” and that others share (or should share) our worldview. Once our worldview becomes established, it provides an integrating function for new data, information, knowledge, values or experiences. But we do not automatically interpret the world realistically. Our worldview profoundly influences future thinking by acting as a filtering lens so that data, information and ideas compatible with our worldview are selectively retained over information that doesn't fit with our thinking. Confirmation bias is a term used by psychologists to describe the tendency to search for, select or interpret information in a way that confirms one's preconceptions. When we are not conscious of our preconceptions, we become blind to our biases.

If we have continued success, our worldview becomes deeply reinforced and serves as a tremendous source of stability, strength, pride and self-esteem, so long as the environment is stable. Many people in the United States today share a worldview that has been greatly reinforced through material success. Today's media and networking allows us to inhabit like-minded enclaves of support that further reinforce implicit worldview orientations. But as the environment changes, some of our entrenched worldview assumptions can become a liability precisely because of their strength and resistance to change. Periodically, our most basic worldview assumptions need to be surfaced and critically examined to determine what to hold onto and what to let go. If unexamined, they may operate to limit the alternatives for renewal and innovation. In my own case, I began to question why our University Dietetics program had no representation from American Indian communities despite significant “health disparities” and

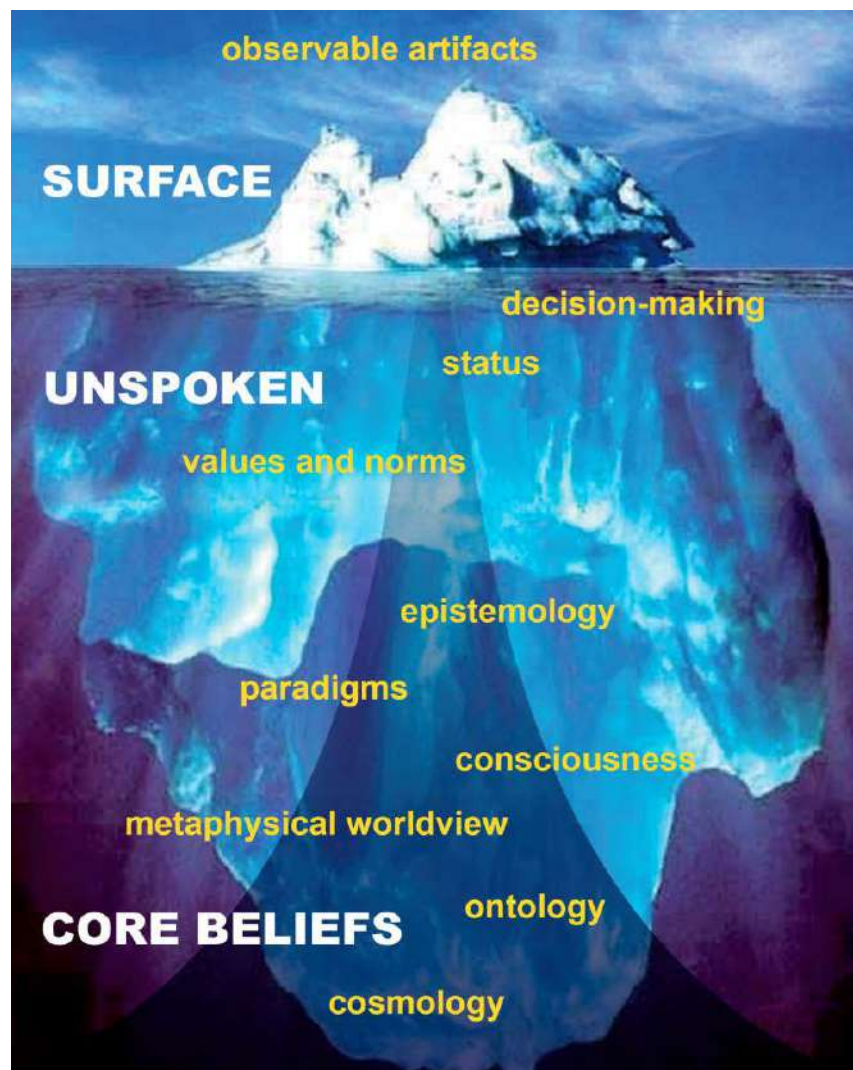
“health inequities”⁵³ and keen interest within these communities in addressing diet-related suffering. This publication was written in response to holding that question for 20 years.

Iceberg Metaphor for Culture

I have found it useful at times to consider the concept of culture using the iceberg metaphor, first seen on the internet in 1999. When we confront another culture or critically examine our own culture, we can use the iceberg metaphor to help us better recognize different levels of culture, including those dimensions that often sit beneath our conscious awareness.

A version of this model is often used in Peace Corps volunteer training. The iceberg metaphor is imperfect in some ways but can be a useful tool to help us gain awareness of culture at different levels. An adaptation of the iceberg model that I sometimes use as depicted in the Figure. Let’s take a closer look:

Let’s start near the top of the iceberg, the part showing above the water line. This represents the empirical world of



⁵³ Minnesota Department of Health. (2014) Advancing Health Equity in Minnesota. Report to the Legislature.

http://www.health.state.mn.us/divs/chs/healthequity/ahe_leg_report_020414.pdf

observable artifacts; those dimensions of culture that are visibly apparent to others. Here we would find personal appearance, clothing or dress, housing, literature, music, food etc. Race is a construction based upon observable appearance only. A racialized identity does not hold the depth and richness of culture.

As a nutrition scientist, my interests in the empirical realm would include foods or food components, recipes, ingredients, harvesting, processing, cooking and storage methods, along with eating patterns and observable food-related behaviors. Because the artifacts of culture can be observed, measured and verified by others, they fit well with the mindset of empirically trained scientists. As an empirically-based biological science, it should come as no surprise that the vast majority of nutrition science is concerned with the artifactual dimension of human culture.

Surface artifacts are quite often manifestations of deeper dimensions of culture that are less visible but very powerful aspects of human experience. In the iceberg metaphor, these so-called “unspoken” dimensions - though not always unspoken - lie below the water surface as less tangible aspects of culture. Included here are concepts of status, patterns of emotions and decision-making, the role of intuition, cultural ideals of gender, along with norms regarding values, justice, leadership, and personal relationships.

Ways of knowing, including paradigms of western science are culturally rooted in the still deeper realm of epistemology (ways of knowing, what counts as knowledge and what is important to know) and concepts of worldview. Unconsciously held convictions and core beliefs are represented as the deepest region of the iceberg. Mindful critical thinking is the process for making conscious and articulating implicit core beliefs. The iceberg metaphor attempts to communicate the richness and vastness of the unseen dimensions of culture that lie beneath physically observable features. As anthropologist Wade Davis indicates, the richness and variety of human cultures represents an answer to the question “What does it mean to be human and alive?”⁵⁰ Encounters with cultural diversity at the worldview level can evoke unsettling dissonance that challenges one’s sense of reality. Patience and courage in holding such dissonance can reveal unconsciously held dimensions of human subjectivity. Vine Deloria Jr., an Indigenous scholar, puts it this way:

“The major difference between American Indian views of the physical world and Western science lies in the premise accepted by Indians and

rejected by scientists; the world in which we live is alive. Many scientists believe this idea to be primitive superstition and consequently the scientific explanation rejects any nuance of interpretation which would credit the existence of activities as having partial intelligence or sentience. American Indians look at events to determine the spiritual activity supporting or undergirding them. Science insists, albeit at a great price in understanding, that the observer be as detached as possible from the event he or she is observing. Indians know that human beings must participate in events, not isolate themselves from occurrences in the physical world. Indians thus obtain information from birds, animals, rivers and mountains which is inaccessible to modern science.⁵⁴

Developing a Healthful Cultural Identity

Let us now return and revisit the quote by Richard Paul:

“It is essential that we foster a new conception of self-identity, both individually and collectively, and a new practical sense of the value of self-disciplined, open-minded thought. As long as we continue to feel threatened by those who think differently from us, we will listen seriously only to those who start from our premises, who validate our prejudices, and who end up with our conclusions.”

As indicated earlier, our sense of identity is especially critical within the context of our highly racialized society. Our identity can be seen as a constructed and evolving story we tell ourselves about how we came to be the person we are⁵⁵. We have all been conditioned to look at issues through a lens of racialization rather than through a lens of culture. This conditioning can encourage us to see one another and even ourselves in overly simplistic terms. A habitual rush to judgment can have us create overly simplistic categories and stereotypes that overlook and obscure the many-layered and highly complex cultural dimensions. It is human nature to generalize and stereotype in ways that fit with our preconceptions. We most often identify with what is familiar or habitual, our highly conditioned habits of mind.

⁵⁴ Deloria Jr V. *Red earth white lies*. Golden, Co: Fulcrum; 1997, p.40

⁵⁵ McAdams, D.P. (2013). *The redemptive self: Stories Americans live by* (revised and expanded edition). New York, NY: Oxford University Press.

Our thought patterns include narratives about ourselves and others that easily become our reality. We can even “become” the narratives we construct about ourselves. If we anchor a significant part of our identity at a more superficial, racialized, level, confrontations with cultural difference can leave us quite prone to feelings of defensiveness or an experience of threat or attack. We easily create a polarized, tribal construct of “us vs. them”. The narratives we tell ourselves may include convictions of cultural superiority such as the idea that to be successful, others should be more like us or agree with us.

Yet our sense of identity forms the core of what we most revere in life, our value outlook and what it means to live a good life. One’s identity transcends all the roles one fulfills in life. Building a healthful sense of identity is very important work that can require challenging self-questioning, uneasy reflection and sometimes a willingness to change.

Cultivating a healthy cultural identity in today’s turbulent society is a lifelong project that requires contributions from all our resources, both individual and collective. Developing a healthy cultural identity requires of us to take responsibility for how we use our mind, expanding our intelligence to include our heart as well as our head. We must develop our capacity to raise up our mindful thinking to the extent we are able. Critical thinking and mindful critical reflection are essential to improving and expanding the quality of our thinking.

I believe this work to be integral with cultivating a healthful sense of individual and collective identity. I work and study with **Healing Roots**, a community based organization where people come together to develop a healthful sense of cultural identity⁵⁶. This community works to develop ways to maintain different cultural identities while appreciating and respecting different cultures. We ask, “What does a world look like where everyone belongs?” We work with people of European American heritage to move from a more superficial racialized concept of identity to a deeper and well-grounded cultural identity that welcomes interaction with other cultural communities.

⁵⁶ Healing Roots. A Path for developing a healthy European American identity, contributing to the end of structural racism and creating space for other cultural ways of knowing.
<https://healingrootscommunity.com/>

Thought As a Cultural Construction

If all thought begins somewhere, that somewhere can be understood as a worldview. The examples above illustrate how worldviews can differ significantly from one cultural context to another. If this is true, we should expect that styles of thought should differ as well. The work of Richard Nisbett et al., a cognitive psychologist and member of the National Academy of Sciences has demonstrated experimentally that social constructs are at the very foundations of cognitive processes one uses to perceive experience and make sense of situations⁵⁷. Human perception and thought processes were presumed by many professionals to be universal until his work demonstrated that cultural orientation significantly influences how experience is perceived and how people think. Significant cultural differences exist among cognitive processes and how we know. Given that producing knowledge about the world is a natural human activity, such findings should not be surprising.

The Talmud offers us the following quote: ***“We do not see things as they are. We see things as we are.”*** I like this quote because it reminds us of the importance of our experience in how we see and interpret the world. Our cultural behavior embodies our experience. Culture is how we organize reality and enact our lived experience.

Compared to many other societies, the United States today carries within its mainstream culture a very high value for the autonomous individual. Individual responsibility, independence, autonomy, even separateness from others are normalized characteristics in this mainstream cultural orientation. This emphasis on individual autonomy further blinds us the many ways we internalize cultural norms and values. In this context, mindful critical thinking becomes even more important if we wish to understand how our individual narratives and behaviors are so often heavily influenced by broader cultural narratives. We can use mindful critical thinking to appreciate the power of the deep and unseen dimensions of culture that govern our thinking as individuals.

As I discussed with mindful critical thinking, many of our beliefs are socially conditioned. From an early age we automatically absorb and unconsciously adopt broader cultural narratives that are highly shared among those around us. These

⁵⁷ Nisbett RE. (2003) *The geography of thought. How Asians and Westerners think differently...and why*. The Free Press, New York, NY.

highly shared cultural narratives are simply taken for granted and so become invisible. We naturally gravitate toward like-minded groups where narratives and perspectives are shared, where we feel a sense of comfort, cohesion and reassurance. In such environments, we tend to grow confident that our shared norms and implicit narratives represent the preferred reality that others should see as we do. We are highly cultural beings in ways we are often unaware or under-appreciate.

Additional Reading

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Cultural Interfacing

Introduction

Cultural interfacing is a strategy developed at the Cultural Wellness Center at its main campus in South Minneapolis, where I study as a Fellow and Elder⁵⁸. The Cultural Wellness Center (CWC) is a community-based, knowledge production organization that focuses on restoring ancient Indigenous African knowledge systems that motivate people to care for themselves, supporting health through personal responsibility and facilitating cultural and community connections⁵⁹. CWC has at its core an African/Khepran system of thought and ethos articulated as: spirituality, symbol, mythos and harmonium⁶⁰. This contrasts sharply with the Euro-Western system of thought articulated as: object, rationality, science, technology, described as a philosophy of abstraction that is devoid of the personal and obligatory transformation within the root of the Khepran Knowledge Philosophy⁶¹. CWC provides a space and a process for culturally specific self - study through internal dialogues as well as to come together with other cultures to interface and celebrate together as a community. CWC builds community capacity to explore the transformative qualities of living in harmonium in order to meet contemporary economic, ecological, social and health challenges. CWC is firm in its conviction that no culture has the monopoly over truth or reality.

Cultural interfacing is a CWC strategy to bring cultures together to stimulate thinking, feeling and knowledge production⁶². It is a process designed to create social transformation where people use their cultural knowledge systems to articulate problems and identify internal resources to take action. It juxtaposes two or more cultural knowledge systems (most often serving to bridge the divide between institutions and community) so that they are on equal footing and level

⁵⁸ Powderhorn/Phillips Cultural Wellness Center. (2002) *Healing From the Four Directions*. Proceedings from: Cultural Wisdom for Group and Community Healing.

⁵⁹ Duke, N. and Azzahir, A. (2015) Creating culturally relevant and responsive health care models. *J. Community Engagement & Higher Ed* 8(3)53-65.

⁶⁰ Azzahir, A. (2017) The Three Books of Khepra. A Khepran Knowledge Philosophy. International Khepran Institute, Minneapolis MN.

⁶¹ Ibid, p.30.

⁶² Cultural Wellness Center. (2008) *Cultural Interfacing Leadership. Terms, Concepts & Praxis*. CWC Minneapolis MN.

ground where each contributes resources to framing and solving problems. It is important to stress that the cultural interfacing approach and process is anchored in the Khepran knowledge philosophy created for healthy and transformational intercultural interaction⁶³. Cultural interfacing is a process for navigating cultural difference by overcoming opposition and negation, creating an intellectual space open for engagement and translation. Interfacing demands that participants bring their full selves, their full humanity into the space of interaction.

Underlying Assumptions of Cultural Interfacing⁶⁴

- Interfacing deals with cultural difference.
- All cultures are embedded within a system of knowledge.
- Many attributes of these knowledge systems exist on a subconscious level.
- All systems of knowledge include a process for identifying problems, surfacing or producing knowledge related to those problems and developing solutions to those problems.
- Cultures have systems of beliefs and practices designed to maintain people's health and sense of connectedness. Circumstances like migration and climate change may make it necessary for cultures to adapt or transform these practices. Forces like colonization may erode people's connections to these beliefs and practices.
- If universities, development agencies, or other institutions impose a system of problem solving that does not align with the culture's knowledge system, it can undermine a cultural knowledge system and ultimately cause harm to a community and to individuals. This can be viewed as an extension of colonialism.

How is Cultural Interfacing Different?

The cultural interfacing process derives from an African/Khepran system of thought. Inquiry is guided by Elders and cultural interfacing leaders who bring a skill-set of facilitation, listening, advocacy and negotiation. To acquire the skill-set, one must come from the inside of a community and be able to identify at a visceral level with the collective experience that the community is trying to transform. The leader challenges him/herself to listen without judgment, to

⁶³ Cultural Wellness Center. (2008) *Cultural Interfacing Framework*, Minneapolis MN.

⁶⁴ Ibid.

develop the ability to listen underneath the words with an open mind, with the intention of understanding as much as possible what a person is saying from his/her own perspective without trying to put them into the leader's own words or view. Cultural interfacing leadership preparation is needed to prepare institutions to partner with communities and communities to partner with institutions.

The process is open and organic, designed to create a balanced dynamic where many voices and everyone's thinking power is engaged. Culturally different ways of knowing are respected and honored. A safe space is created for members of the community and institution to self-reflect and self-study, the foundation for self-correction and collective transformation. Participants are respected for their presence, their life experiences and for the cultural gifts and wisdom they carry with them into the interaction, even if they themselves may not be aware of some or many of the gifts they carry. The work of Elders is to help participants gain awareness of the wisdom that they unconsciously carry within themselves. The interfacing process is respectful and honors what happens in the interactive moments as the process unfolds. It brings into fuller awareness the feelings, thoughts and reactions that are often held beneath conscious awareness. Participants do not get to hide behind their thoughts. They are asked to articulate what is happening inside themselves as they participate and reflect. Knowledge is generated in the moments of Honesty, authenticity and integrity are among self-knowledge are products of the process.

I have participated in the cultural interfacing process for almost 15 years. My own experience is that there is a striking expansion of the depth and genuineness of the cultural interfacing process in comparison to even the best of professional/institutional conversations that I have experienced. One of the goals is to surface the innate knowledge and emotional (heart) intelligence within participants. This innate knowledge serves as guide in giving direction to one's mind, learning and behavior in the process of cultural self-study. The cultural interfacing process and the environment that is created work together to produce experiences unlike those of any institutional gathering I have experienced. This visceral experience gives me the strength and motivation to create transformation within myself, which I then carry into the institutional environments in which I participate. Although there are many ways the cultural interfacing strategy differs from institutional dialogues, for me, the most important answer is that the self-study process leads to self-correction of the cultural superiority narrative that permeates institutional and societal norms. My work is to bring this transformational spirit into our institutions.

In 2009, I was asked why I study at the Cultural Wellness Center. Here is my response:

Although I work at the University of Minnesota doing research, teaching and outreach, I study as a Fellow at the Cultural Wellness Center. Why? The CWC is a place where I feel I can bring and express my fullest self as a human being. This is not the case in most professional settings where winning, being in control, saving face, distancing oneself and defensive posturing are not only common, but deeply habituated routines. Maintaining one's image, credibility and professional reputation are major factors driving the action, agenda and decisions of academic professionals. This is not why I entered academic life.

On one hand, research universities are incredibly rich environments, a place where knowledge is shared and minds are stimulated. But so much human knowledge, understanding and wisdom is excluded in the socializing process, so much humanity lost in the rush for individual achievement. This is sad in many ways.

At research universities, we tend not to study our inner life. As scientists, we are often not conscious of our highly conditioned states of mind. We seldom direct our critical thinking toward making conscious the implicit commitments that govern our behavior. We seldom examine our interpretation of science as a process wherein we isolate ourselves from phenomena, where only material, observable phenomena are considered worthy of our attention. Because these subconscious commitments go unexamined, they continue with a force that exerts a powerful hold on the scientific mind, as well as the developing minds of our young students. This contributes to an inertia that denies or dismisses any human knowledge that might come from beyond these assumptions.

At the CWC, I learn to capture knowledge and learning generated in the moment. We interact and interface with one another respectful of all dimensions of our humanity, with a priority on experience that reaches into the soul. I study identity, refine purpose, regain my soul as I connect with community and learn to bring my full self to life's work. The CWC supports me in having the personal strength and community support to create institutional change so much needed at our research universities.

“Cultural interfacing is needed more today as we face planetary challenges, when our world geographically and historically becomes the entire planet, and technology is used as the means for handling our common human condition, and for unifying it. Technology, however, ignores fundamental ingredients of the human being, and consequently does violence to reality. Cultural interfacing offers a counter strategy to the violence of technology that reduces all knowledge and experience to the realm of object”.

- Seba Ahmed Azzahir

"What is reality in the civilized West? A world of outsides without insides"

- Owen Barfield

"We should reach back and gather the best of what our past has to teach us so that we can achieve our full potential as we move forward. Whatever we have lost, forgotten, or been stripped of, can be reclaimed, revived, preserved, and perpetuated."

- Todd Robertson

"American education has often felt that letting Indigenous consciousnesses into its classrooms will weaken the overall education system, which is an outdated and incorrect mindset born out of a fear and/or disgust for the Other. In fact, we will awaken a side that is in desperate need of attention: humanity."

- Lance A. Twitchell

Cross-Cultural Engagement Methodology: An Overview

Here I describe a process whereby academic professionals in the agriculture, food, nutrition and public health disciplines can engage with culturally different systems of thought, or ways of knowing⁶⁵. Every human society has developed its own understandings agriculture, food and health⁶⁶. But the inquiry and curricula

⁶⁵ Hassel C. The craft of cross-cultural engagement. Journal of Extension 43:6 #1, 2005. <http://www.joe.org/joe/2005dec/a1.shtml>. Retrieved from the Web 2/1/2018.

⁶⁶ Kiple, K.F. & Ornelas, K.C eds. (2000). *The Cambridge World History of Food*. Cambridge UK: Cambridge.

now associated with these disciplines rely almost exclusively on Eurocentric and biomedical-based systems of thought. These academic disciplines still carry presumptions of cultural superiority and cultural hierarchy, especially concerning human knowledge; systems of thought and ways of knowing that guide ways of living in the world. It is not surprising that these and many other academic disciplines currently lack strategy, methodology and pedagogy for developing the means to empathically explore the values, stories and ways of living that Indigenous knowledge systems have to offer.

Cross cultural engagement (CCE) is a practice of seeking and then critically engaging (in this case) the food and health understandings of non-European cultures. Non-European cultures have their own worldview orientations and their own systems of thought. They have with their own culturally specific processes for identifying and framing problems, for producing human knowledge, and developing solutions to those problems. In many cases, the knowledge systems of Indigenous Peoples are different enough from the knowledge systems of academic disciplines that they are seen as incongruent and/or incoherent with academic understandings. Therefore, they have been commonly dismissed or greatly undervalued.

CCE asks the professional to attempt to understand the Indigenous knowledge system on its own terms. This implies a process of stepping beyond the boundaries of accepted disciplinary practice and into a space beyond their area of expertise or familiarity. CCE is a method wherein one actively and deliberately seeks and develops personal, ongoing, intercultural relationships to support their own developmental process. Such ongoing relationships play an essential role in supporting professionals as they go beyond the boundaries of their customary worldview orientation, their customary value outlook and their disciplinary paradigm.

In the process of stepping beyond the *a priori* boundaries of scientific research, the professional is asked to imaginatively construct and temporarily inhabit a facsimile of an Indigenous system of thought. Ongoing, personal relationships are quite helpful here in the form of intercultural guidance. Such guidance assists with keeping a degree of coherence with the cultural realities and experience of the community of interest. When conducted properly, this practice dislocates the professional from her paradigm of training and worldview orientation and they begin a process of entering into a culturally different perspective and experience. This practice is referred to as cognitive frameshifting and is an advanced

intercultural skill⁶⁷. The disruption of worldview that can accompany cognitive frameshifting can evoke an uncomfortable dissonance that may also disrupt one's sense of identity. A well-grounded and healthy sense of cultural identity is needed here to avoid feeling threatened, becoming defensive or otherwise retreating to familiar cognitive territory. This is another area where ongoing supportive relationships in the form of within-culture cohort or community become a source of vital support.

This CCE frameshifting practice helps us as professionals to learn more about ourselves. By venturing beyond our customary understandings, we construct a new perspective, one that gives us a different location from which we can reflect back upon ourselves, our assumptions and habitual patterns of thought and action. The new vantage point makes more visible what was previously implicit. CCE helps us to surface and hold out for conscious examination what is otherwise implicit or subconscious in our thoughts and actions. On a personal level, surfacing deeply embedded cultural assumptions is especially important in advancing one's intercultural capacity. On a collective level, the practice of CCE can position academic professionals not only to better and more deeply understand diverse cultural knowledge systems, but also to critically explore the foundational convictions upon which their profession is practiced. The possibility opens for new arenas of discourse that support fellow professionals in critically contemplating their intercultural experience and embracing the value of this kind of self-study.

This is quite significant given professional commitments to maintaining a stance of objectivity. The common response to most professional training in agriculture, food, nutrition and public health disciplines has us denying, struggling against or bracketing out our own human subjectivity. While practices of other cultures are often included as curricular content, they are almost always considered through a mainstream cultural lens that positions these practices as objects of study to be understood through a Euro-Western epistemology, such as biomedicine. Seldom considered are non-Eurocentric worldviews and epistemologies that create and govern the more tangible and visible cultural practices. This is because these deeper dimensions are obscure or invisible to observers who have not made a deliberate effort to develop their intercultural sensitivity.

CCE therefore represents a practice that on one hand, seeks to critically engage

⁶⁷ Bennet MJ. Towards ethnorelativism: A developmental model of intercultural sensitivity. In Paige RM, ed. *Education for the Intercultural Experience*, 2nd ed. Intercultural Press, Yarmouth, ME: 1993. p. 21-71.

the deeper epistemology, cosmology and axiology that give rise to the food and health practices and understandings of non-European cultures. In acknowledging the importance of cultural difference at deeper levels, the work becomes developing one's capacity to adapt one's perspective, of evolving one's imaginative facsimile to more fair-mindedly and empathically take Indigenous knowledge systems into account.

On the other hand, CCE helps professionals to become more aware of the Eurocentric cultural grounding foundational to most academic disciplines. The epistemologist Lorraine Code coined the term "hidden subjectivity" in referring to the background assumptions, cultural values and hypotheses implicit to and embedded within a well-established scientific discipline⁶⁸. The term hidden subjectivity points to their subjective nature. Materialism, reductionism, mechanistic thought and subject/object dualism for example, are not filtered out by objective, disinterested techniques but represent subjective orientations that permeate the mental models through which disciplinary inquiry proceeds. Hidden subjectivities are seldom explicitly recognized in agriculture, food, nutrition and public health disciplines and even less often become subject matter for accepted disciplinary discourse⁶⁹.

The CCE Experience Described

I have found that close working and personal relationships with Elders and cultural knowledge holders is indispensable in developing well-grounded CCE practice. Mistakes and misunderstandings are inevitable in one's intercultural development. They become an invaluable source of learning if one is guided in the process of learning through action. Finding reliable mentors can be challenging but many communities will welcome interaction with professionals who demonstrate sensitivity to these challenges, commitment to community well-being and a sincere willingness to bring their full humanity to the work. Building personal relationships and trust requires time and commitment, often with no assurance of a desired outcome. The work is neither easy nor efficient in the sense of producing outcomes often expected by institutional demands. Persistence in developing long-term relationships, intercultural mentoring, dialogue, trust

⁶⁸ Code, L. Taking subjectivity into account. In *Rhetorical spaces: Essays on gendered locations* (pp. 23-57). New York: Routledge, 1995.

⁶⁹ Hassel C. (2014) Reconsidering Nutrition Science: Critical Reflection with a Cultural Lens. *Nutrition Journal* 13:42. <http://www.nutritionj.com/content/13/1/42> accessed 5/1/18.

building, critical reflection and a supportive work environment are all important in the work of continuing to cultivate CCE skills.

A basic protocol for the critically reflective practice of CCE comes from over 20 years of experience and is outlined below.

- Develop ongoing personal (not transactional) relationships with individuals who work within Indigenous cultures and value/hold Indigenous knowledge traditions.
- Maintain an open-minded disposition by suspending any impulse toward preliminary judgments or disbelief regarding the validity or tenability of Indigenous worldviews or concepts.
- Empathically consider Indigenous teachings and worldview orientations by cognitively inhabiting them to the extent possible. The goal of this advanced intercultural practice is to create a different cultural experience by imaginatively constructing a crude facsimile of an Indigenous cultural experience to the extent possible. This crude facsimile can be refined over time; the importance of initial attempts at cognitive frameshifting is that of creating a different cognitive vantage point from which to construct such a facsimile.
- Use the new cognitive vantage point and cultural experience to reflect back upon your own habitual thought patterns and mental models. Try to recognize the culturally constructed nature of your mental models (linear, dualistic, objectifying, materialistic, universalizing, mechanistic, etc.) and value outlook (human control, human ascendancy, ideas of success, progress, productivity, aversion to non-material phenomena, etc.).
- Begin to recognize and critically reflect upon your cognitive attachments to your habitual thought patterns, mental models and value outlook.
- Develop a capacity over time to temporarily loosen your attachment to thought patterns and mental models to make more cognitive room to inhabit, experience and refine your imaginative facsimile of an Indigenous worldview and cultural experience.
- Continue to episodically and dialogically dwell for periods of time within your constructed experiential facsimile, using it as a new reference point location for reflecting back upon your habitual/professional background assumptions and mental models. This dialogical moving back and forth between culturally different cognitive frames is the means to further develop and refine your frame-shifting capacity.
- Critically reflect on your experience with each of these steps in an iterative and ongoing process of action/reflection. What begin as cognitive moves with time become more emotive and embodied experiences.

The term critical reflection as used here refers to the process of inhabiting a culturally different worldview orientation for the purpose of critically reflecting back on one's own worldview to surface and examine the hidden background assumptions and presuppositions that subconsciously direct one's attention and perception. These often subconscious hidden subjectivities often escape skeptical inquiry because they are highly shared, taken for granted and not filtered out by the methodologies employed by professionals.

By examining myself at these often implicit depths through critical reflection, my identity as a professional is no longer chained to these ideas, bound by subconscious conditioning. I have room to move toward a more critical and informed relationship with my worldview and paradigm orientations. This self-study process also allows me to interact with people who do not share my worldview orientation without feeling a need to become defensive or protective. I become more aware of the impulse to frame any problem or understand any issue through the lens of my academic training and to become sensitive to how this lens can distort knowledge that is generated from different cultural orientations.

It is important to emphasize here that the CCE development process does not ask that I abandon my worldview or uncritically accept or adopt a cultural heritage other than my own. Quite the contrary, by studying and critically reflecting upon my subjective self, I am better grounded culturally and philosophically so that I become more fully open to experiencing the full dimensions of cultural difference without fear of losing my personal identity. I become better prepared to recognize power differentials and to begin to navigate the sometimes unsettling terrain of cultural difference. CCE thus represents a stark contrast to the more typical expert model where a dominant worldview is often presupposed as "correct" or "research-based", an ultimate organizing frame of reference.

I have also noted a shift regarding my personal/professional identity. My professional training cultivated a professional identity as content expert and credentialed authority figure; a kind of dis-embodied arbiter of truth in matters of nutrition. This perception was reinforced in my academic position as an Extension Specialist at University of Minnesota. I had to learn that this emphasis was not appropriate to the work of CCE. My identity evolved from a relatively narrow and professionally conditioned role as content expert toward a more participatory role where I bring my fuller self, my fuller humanity to the work.

Loosening my attachment to a strictly professionally constructed identity meant becoming more vulnerable and open. While this initially felt risky and threatening, over time I found that letting go of the presumption of my role as arbiter of nutritional truth liberated space for me to become more receptive, to listen more carefully and to experience more fully the context and meaning inherent within my intercultural interactions. In retrospect, the arbitrary distinction between personal and professional identity began to blur as I continued to risk carrying more of my fuller self, my fuller humanity into the CCE experience. It is important to emphasize here that these skills and dispositions represent shifts that occur deep within one's cultural makeup and identity, within the depths of the iceberg, metaphorically speaking. Again, supportive, ongoing, personal relationships have been indispensable to this personal transformation and role shift.

Engaging cultural difference often comes with significant challenges. The challenges described below can be understood more generally as making the invisible visible, or making the implicit explicit⁷⁰:

1. People from a dominant culture are often grossly unaware of the transformational impact their culture has on people from another culture.
2. People from a dominant culture often have great difficulty seeing or apprehending the cultural dynamics of another culture when those dynamics fall outside the observers own cultural experience.
3. The tendency to avoid noticing major features of another culture when they are incongruent with unspoken codes of correctness in one's own culture.
4. Traditional and empathetically oriented cultures will suppress behavioral traits to avoid discomfort to those outside the culture.

The practice of CCE asks professionals to recognize these difficulties in the first instance by reconsidering the culturally inculcated idea that our familiar biomedical models represent universal descriptions of reality. Although highly successful in many ways, it is important to remember that biomedical disciplines, including nutrition science, represent mental models, coherent cognitive maps constructed by humans and derived from a particular (cultural) approach to

⁷⁰ Sorenson ER. Preconquest Consciousness. In: Tribal Epistemologies, H. Wautischer, ed. Ashgate, Brookfield, VT, 1998 pp79-116.

questioning reality. CCE emphasizes acknowledgment of and advocates further consideration for the cultural dimensions of different mental models, taking into account the difficulties described above. Navigating the deeper epistemological and worldview dimensions of cultural difference can evoke significant cognitive dissonance. An essential aspect of rigorous CCE practice is developing a disposition and capacity to hold dissonant questions for further contemplation, resisting the impulse to solve or push them away in short order.

Example from Nutrition Education

What are the possibilities that arise with greater sensitivity to and consideration for the deeper dimensions of cultural difference? Let's consider examples from nutrition education. Many dietetics professionals working with culturally diverse communities are well aware of the need to fashion educational approaches that are more appropriate to the cultural context of those communities. A typical contemporary approach to this practice is presented in Figure 1. In this depiction, the former USDA Food Guide Pyramid was modified to create a Native American Food Pyramid. This visual model was developed for use with Indigenous communities by including traditional Indian foods such as wild rice, rabbit, venison and bear in the pyramid construct (California Adolescent Fitness and Nutrition Program). While this approach represents some improvement over the unmodified food guide pyramid, its cross-cultural dimension is limited to the artifact level.



<http://www.nal.usda.gov/fnic/Fpyr/NAmFGP.html>

Figure 1. Native American Food Guide Pyramid. Indigenous foods such as wild rice, venison and salmon are placed within a Euro-American pyramid construct. This represents a dimension of cultural inclusion at the level of physically observable artifacts.

This form of cross-cultural nutrition education extracts Indigenous artifacts into a Euro-American worldview of hierarchical relationships, human pre-eminence and biomedical ways of knowing. These epistemic constructs emphasize food as fuel, food as essential nutrients, food as bioactive molecules, and nutrition in terms of experimentally predictable, observable and repeatable physiological and physiochemical effects. Modified-pyramid approaches may leave nutrition educators with the impression that the prevailing Euro-American worldviews and biomedical epistemologies represent the only conceivable way to gain any legitimate understanding of nutrition. Indigenous knowledge of local foods, seasonal eating patterns, and worldviews that see food as connection to Mother Earth, as memory, as consciousness and as spiritual nurturance are de-valued or disregarded. So while the Native American Food Guide Pyramid could well be considered as improvement over the un-adapted USDA pyramid, it represents only an initial “artifactual” step toward the admirable goal of becoming more culturally appropriate. To take another step, we must tap into cultural diversity that awaits our attention at deeper levels of culture.

What might nutrition education look like if Indigenous communities had free reign to approach nutrition education from within their own worldview orientation? Of course, this will depend upon the unique culture and history of the community. As part of the Woodlands Wisdom Nutrition program, we asked Elders from Lac Courte Oreilles Band of Ojibwe to incorporate their cultural wisdom and knowledge into a symbolic representation that could be used to teach nutrition in their community. With the help of a Tribal College artist, the representation they developed is shared below:



Figure 2. Artistic rendition of culturally appropriate nutrition education symbol developed by Lac Courte Oreilles (LCO) Elders and artist Anna Martineau-Merritt. This symbol circle is a depiction of a medicine wheel, the circle of life which gives reference to the four directions (east, south, west, north), the four seasons (spring, summer, fall, winter), the four stages of life (childhood, adolescence, adulthood, elderhood), the four elements of nature (sun, water, earth, wind), the four aspects of health (mental, emotional, physical, spiritual), among many other teachings. Around the outside of the circle are but a few examples of the plants, animals, birds, medicines and foods that are associated with each direction, season, stage of life, dimension of health. The symbol brings forth ancestral teachings for how to live a good and healthy life interdependent with earth, water, plants and animals, with balance and spiritual interrelatedness. It holds many generations of collective knowledge and wisdom.

Implications for Practice and Policy

Many older cultural traditions serve as rich assets and resources for Indigenous Peoples today. Communities have a vested interest in both protecting and advancing their cultural-based healing traditions and systems of thought that in many cases have persisted for millennia. Indigenous Peoples have witnessed exploitation, erosion or fragmentation of their knowledge systems, often from forces of colonization that readily impose Eurocentric methods while discounting Indigenous epistemologies⁷¹.

Agriculture, food, nutrition and health professionals are seldom taught to see the culture they bring with them into the intercultural interaction. They are seldom taught to understand the power and depth of culture as it plays out within intercultural interactions with Indigenous peoples. Professional education seldom equips its professionals to see culture within themselves, to look for, recognize and examine the cultural grounding of their professional training or to see the dimensions of culture embedded in accepted approaches to scientific inquiry.

More commonly, professionals are taught to normalize professional practice as somehow disconnected from culture, as transcending culture, or as an ultimate reference point for understanding problems regardless of cultural context. Meaning is lost and misunderstandings arise as knowledge is taken out of its founding cultural context and re-framed or examined within a biomedical perspective. Knowledge is easily disfigured by abstraction from its founding cultural context followed by interpretation within a Eurocentric paradigm without permission, involvement and guidance from Elders of the founding culture. Such practices are seen as continuing a legacy of colonizing that violates the community's capacity to maintain or recover its own knowledge. These colonizing patterns often go under-appreciated or are invisible to professionals who have not yet achieved a threshold of intercultural sensitivity.

The *Seeds of Native Health* campaign is well positioned to address these power imbalances and injustices by modeling CCE practice in its Native Nutrition Conferences. Here, arenas are created in which community Elders and knowledge holders are able to structure a fair and balanced negotiation process for decisions about how their knowledge assets are to be used or communicated. In

⁷¹ Smith LT. *Decolonizing methodologies: Research and Indigenous Peoples*. New York, NY: Zed Books; 2012

recognizing the rights and capacities of older cultural communities to create and advance their knowledge as a means to improving their condition, new scholarly opportunities and innovation can begin to emerge at the interface of Eurocentric and Indigenous Peoples worldviews. Professionals who are open, sincere, ready to share power and authority will likely find a very rewarding array of experiences with community partners. Long-term intercultural relationships not only open an expansive horizon of new possibilities, they can lead to a professional practice and scholarship that heals.

Culture and Science: Attention to “Hidden Subjectivities”

“Significant change in science is brought about not by new observations or additional evidence in the first instance, but by transpositions taking place inside the minds of scientists themselves. Of all forms of mental activity the most difficult to induce is the art of handling the same bundle of data as before, but placing them in a new system of relations with one another by giving them a different framework, which virtually means putting on a different kind of thinking -cap for a moment.”

- Herbert Butterfield, *The Origins of Modern Science*, 1957, p.13.

Dr. Butterfield’s statement suggests that there may be times when what is needed is not so much a new discovery as an alteration in our way of seeing and understanding the things upon which our attention is already fixed. His recommendation that we develop our capacity to reframe our thinking points to cross-cultural engagement and cultural interfacing as ways to access different frameworks or a “different kind of thinking cap”. My 25 years in cross-cultural work suggests that opening ourselves to the breadth of human culture gives us a pragmatic and practical entry point for what he describes as the most difficult mental activity to induce.

As I have suggested, learning to “see” our mental frame, to make explicit our implicit mental infrastructure, can be a significant developmental task in itself. This is particularly true in the case of a dominant frame, a system of thought widely presumed as the standard for generating truth. It is what we use to think *with* and *through*, but seldom *about*. Within a disciplinary or academic context, I use Kuhn’s concept of paradigm; within a societal context, I use the concept of “worldview” in reference to our framework of understanding.

As a long-time advocate of critical thinking, I carried a devoted commitment to examining my assumptions and exploring my own viewpoints. I felt I had Butterfield's challenge pretty well covered. But only after I began my intercultural work, post-tenure and in my mid-30's, did I realize that I greatly over-estimated my capacity for reframing, that my practice in surfacing implicit assumptions was far less developed than I had assumed. It was not until I immersed myself within a context of cultural difference that I began to truly appreciate the power and extent of my enculturated assumptive constellations.

Regarding Dr. Butterfield's quote, I believe he invites us to re-direct our attention to the fundamentals of how we think, toward what we take for granted and therefore to what we may overlook. This kind of critically reflective discipline is now lacking in many scientific fields of study, including agriculture, nutrition and food sciences.

Only a bit of critical reflection helps us to recognize that the most basic background assumptions foundational to scientific thought are not products of scientific methods, but antecedents of inquiry, presupposed as *a priori* convictions. Consider for a moment our cognitive attachments to materialism, reductionism and valuing human control over nature. These basic orientations permeate scientific thought to the point that they are often conflated with scientific practice itself. Science, like everything else, is based upon a constellation of presuppositions and background assumptions. These ideas are interwoven into an epistemic foundation, a paradigm that frames and governs our thinking. Surfacing and examining otherwise implicit dimensions of our thought can feel disruptive, inherently uncomfortable, even destabilizing. Hence, the most difficult to induce, says Butterfield.

Take, for example, the idea that "physical effects have physical causes"⁷². Seldom questioned or verified, often simply taken for granted and presupposed, this highly shared conviction of temporal, material and primary causality becomes invisible through wide acceptance. Questioning such an idea might lead one to a reaction of impatience or resistance. Why would we waste our time considering something that is self-evident? It is foundational to success in science.

Success creates patterns. Success cultivates subliminal habits of mind that direct and orient attention toward certain phenomena and away from others. Our focus of attention develops our sensitivities in certain areas and away from others. Our

⁷² Collingwood RG. *An essay on metaphysics*. London: Oxford University Press; 1940.

sensitivities drive our subsequent actions, behavior and define success. When internalized, the presuppositions above have us seeking “billiard ball” relationships, highly deterministic and easily attributable to primary material causes. Such a thought style has been instrumental in discovering pathogens, creating pharmaceuticals and identifying “bioactive” molecules. This side of the coin is all to the good. The flip side is that our thinking is governed, and therefore also constrained by internalized and often unconscious habits of mind. When habits of mind are highly shared, they escape peer review as accepted truth. Collectively, we risk becoming blind to our constraints. That we tend to make sense of the world in specific and particular ways seems quite “normal” but as the world changes, our infrastructure may become problematic in ways that escape awareness from within a field of study.

As another example: consider the ubiquitous search within biomedicine for “mechanisms of action”. The idea of a mechanistic universe is inherited from Newtonian physics, then chemistry, applied to physiology and biomedicine, including nutrition. Mechano-morphic thought has served us quite well in advancing scientific knowledge. It has offered significant explanatory power that aids in treating disease. When we apply these models to predict and control events successfully, *we tend to attribute to our mental models the quality of reality*⁷³. Success as defined through these models encourages us to normalize, even idealize our mental models. Over time, we lose sight of the model, forgetting its powerful role in directing our attention, influencing our perception and organizing our focus and priorities. Collingwood warns us against confusing our presuppositions with reality.

Successful mental models that remain implicit easily become cast-iron parameters, serving us well in maintaining and enhancing focus on one hand, but working against us on the other to confine our scope of our attention and therefore the field of possibilities we deem worthy of consideration. As cast-iron protects, it also restricts. We become oblivious to fundamentally different ways in which one could model the same phenomena. Absent a deliberate effort to take a step away from our epistemic infrastructure and examine our thinking and to its implications, we become vulnerable to developing “blind spots”. What fields of possibilities remain rarely considered and therefore under-investigated? Opportunity costs of actions not taken are often invisible. Again, this brings us back to the difficulty mentioned by Butterfield regarding this kind of re-framing mental activity.

⁷³ Hawking S, Mlodinow L. *The grand design*. New York; Banta; 2010.

Unexamined presuppositions, background assumptions, cultural values and mental models constitute what some philosopher/epistemologists call “hidden subjectivities”⁷⁴. When background assumptions and mental models are highly shared, they acquire invisibility that renders them unavailable for criticism within a scientific community⁷⁵. Mechanistic thought is not filtered out by objective methodology, rather, it becomes integral to the habits of mind through which disciplinary inquiry proceeds. This wide acceptance becomes implicit, habitual and so escapes criticism through peer-review. It is “hidden in plain sight” simply by being taken for granted as true and beyond question.

As another example, consider our often subconscious acceptance of subject/object dualism. We are taught the proper role of the scientist is that of a neutral or passive observer. In striving toward the ideal of what is considered good science, one takes great care in constructing controlled, idealized environments for experimental observation. We observe carefully. In the process, we keep ourselves out of the experiment, we see ourselves as separate from the phenomena under study, so as to minimize any subjective influence. This distancing of the observing subject from the object of our attention can cut both ways. On one hand it allows us unprecedented precision and accuracy of observation. Measurement can be a wonderfully precise way of seeing. On the other, distancing oneself creates a sense of detachment, seeing ourselves as spectators outside and apart from the phenomena that we study. We become disinclined to see ourselves as being “in” our study, as *participating with* phenomena. We build a narrative of separation as we construct an epistemic mindset wherein we see nature as a collection of objects separate from ourselves. Many commentators wiser than I have pointed to the pathologic implications associated with this perspective (pollution, global warming, food systems that cultivate chronic disease). Let me share again the quote from Vine Deloria Jr. ⁷⁶:

“The major difference between American Indian views of the physical world and Western science lies in the premise accepted by Indians and rejected by scientists; the world in which we live is alive. Many scientists believe this idea to be primitive superstition and consequently the

⁷⁴ Code, L. Taking subjectivity into account. In *Rhetorical spaces: Essays on 11 gendered locations*. New York: Routledge, 1995: 23-57.

⁷⁵ Code, L. Taking subjectivity into account. In *Rhetorical spaces: Essays on 11 gendered locations*. New York: Routledge, 1995: 23-57.

⁷⁶ Deloria Jr V. *Red earth white lies*. Golden, Co: Fulcrum; 1997, p.40

scientific explanation rejects any nuance of interpretation which would credit the existence of activities as having partial intelligence or sentience. American Indians look at events to determine the spiritual activity supporting or undergirding them. Science insists, albeit at a great price in understanding, that the observer be as detached as possible from the event he or she is observing. Indians know that human beings must participate in events, not isolate themselves from occurrences in the physical world. Indians thus obtain information from birds, animals, rivers and mountains which is inaccessible to modern science.”

If we choose not to give this quote serious consideration, in essence we choose also to remain unaware of our epistemic conditioning and to become constrained in ways which we do not recognize. A complacent over-attachment to that which is good easily becomes the enemy of the better. We become vulnerable to implicit biases and prejudices. Consider for a moment the prospect I am suggesting within the context of your own individual career.

Directing your attention away from the concerns of everyday research and toward our most basic mental models, background assumptions and implicit values might seem awkward at best. Hidden subjectivities are essential. They greatly facilitate scientific progress by freeing investigators from basic concerns, allowing scientists to direct their full attention to the many questions that emerge within the parameters of ongoing “normal science”⁷⁷. Seriously questioning well-established mental models can feel heretical to one’s professional role, responsibility, job description or even one’s professional identity. More pragmatically, as competition for funding intensifies, as disciplines continue to specialize and sub-specialize, as careerism pushes academic professionals toward increasingly specific and narrow domains of expertise and as “what have you done for me lately” calls for accountability grow louder, such a prospect would seem to make little sense. Notice a tendency of professional behavior toward a bias of inertia: to maintain the status quo or adopt the default option when confronting uncertainty and ambiguity. This form of bias is related to its conformist cousin, the tendency to follow conventional “wisdom” in circumstances of risk. Such biases are very real, powerful and pragmatic forces; they add weight to Butterfield’s claim as the most difficult of all forms of mental activity.

But as we become conditioned to accept our mental models and epistemic infrastructure as our reality, we risk imprisoning ourselves and becoming blind to

⁷⁷ Kuhn T. *The structure of scientific revolutions*. Chicago IL: University of Chicago Press; 3rd edition, 1996.

our own responsibility for our imprisonment. To the extent the world changes over time, we may benefit from the occasional reminder of what we are doing; that we routinely hold and use hidden subjectivities⁷⁸. When hidden subjectivities remain internalized as subconscious background assumptions, the implications for us are less about us holding implicit assumptions and more about the implicit assumptions holding us. Hence the “cast-iron” metaphor. If we assume a world that is stable and predictable, the need to revisit our implicit infrastructure may not seem so critical and urgent. But as the world continues to change and evolve over time, along with our academic disciplines, the need to examine our collective mindscape grows more apparent. Over-attachment to implicit values and unexamined mental models can become a growing liability as the world continues to change.

At some point, we must allow ourselves to take a deliberate step back from the ongoing treadmill of academic work, from the competitive micro-world of research. If we are able to find a different location, a different standpoint from which to take a broader look, a somewhat different picture can begin to emerge.

In retrospect, might this over-attachment to our intellectual infrastructure have created difficulty as nutrition science transitioned from the cause-effect determinism of acute deficiency diseases to the far more complex and multifactorial diet-related chronic diseases?⁷⁹ We may become unable to “see” alternative mental models or give serious consideration to other orientations or value outlooks that may also hold truth. A fair-minded commitment to our ideals of objectivity, impartiality and neutrality (cognitive values that also represent hidden subjectivities) tells us that explicit attention to what we take for granted would advance our commitment to skeptical inquiry. It would ask that we occasionally revisit what we take for granted. It would ask whether the aims of institutionalized disciplines have been pulled too far in the direction of readily recognizable success and away from phenomena that are under-investigated or under-developed. A fuller embrace of skeptical inquiry demands that at some point we step back from our typical scientific activity, giving us room to recognize and re-examine our presuppositions, our implicit values and biases, our mental models.

⁷⁸ Longino, H. (2002) Pluralism and local epistemologies. In: *Fate of Knowledge*. New Jersey; Princeton University Press; pp 175-202.

⁷⁹ Hassel C. (2014) Reconsidering Nutrition Science: Critical Reflection with a Cultural Lens. *Nutrition Journal* 13:42. <http://www.nutritionj.com/content/13/1/42>

“Our culture is our bondage. Our culture is also our liberator. Our culture is our nourisher. Our culture is also the mesmerizer - keeping us transfixed in the mould it has established, and hardly allowing for alternative perspectives”.⁸⁰

Being human, we tend to carry implicit biases that help us when confronting challenges and making decisions. I put forward a few biases that commonly infiltrate the scientific enterprise.

- **Amnesia:** The tendency to forget shameful or otherwise uncomfortable history, or history that is incongruent or in conflict with our paradigm.
- **Inertia:** The tendency uncertain about the future benefits of investing now.
- **Over-simplification:** The tendency to selectively consider only certain factors when making choices involving risk.
- **Herdin:** The tendency to follow the "wisdom" of the crowd, especially when confronted with uncertainty or ambiguity.

Consider the following analogy, paraphrased from Charles Buck, a practitioner of Chinese Medicine⁸¹:

How do we explain that we can use culturally different mental models to describe the same thing with both holding validity. Consider how series of chemicals: calcium, phosphorous, carbohydrates, fatty acids, etc can represent a valid chemical analysis of a painting, say Vermeer's "Lady with a Pearl Earring". Yes, that may be useful in verifying the authenticity of the painting, but you could also take it to a Sotheby's expert whose language would be in terms of color, composition, content and brush strokes. Both are valid descriptions and both could be used to authenticate the painting but the language is aiming to describe something different, different qualities are measured.

⁸⁰ Skolimowski, H. (1994) The participatory mind. A new theory of knowledge and of the universe. Arkana Penguin, London, p.265.

⁸¹ Lampert, N. Whose culture? Tradition and knowledge in Chinese medicine. In: C.O'sullivan. ed. *Reshaping Herbal Medicine*. Elsevier, London.

My proposition to our agriculture, food, nutrition and health disciplines is that the time has come for us to step back a bit from our every day “thought styles”, to purposefully and rigorously examine our hidden subjectivities. Our commitment to objectivity holds that we become more aware of and willing to acknowledge the intrinsic egocentric and socio-centric forces within us as human beings. A true commitment to objectivity requires taking our hidden subjectivities into account.

I suggest that the ideal of skeptical inquiry remains incomplete and unfulfilled so long as we withhold taking our own subjectivity into account. This work would require no more than a few interested professionals in each discipline to re-direct scholarly attention toward explicating and examine hidden subjectivities while the greater discipline creates a place for such critically reflective discourse within our academic societies and institutions. In this way, a small community could work to inform the greater discipline as “normal science” continues. There will always be moments in science where it is essential for us to “bracket out” subjective influence, to impartially determine to the extent possible which theories/hypotheses to accept.

Food is universal to the human experience and every human society has developed understandings of food and health. To paraphrase anthropologist Wade Davis, the diverse cultural ethnosphere of human understandings around food and health are not failed attempts to “be like us”, they are each compelling answers to the question “What does it mean to be human and alive?”

Developing the capacity and inclination to fair-mindedly and critically examine hidden subjectivities as the object of inquiry is an expedient means to help food, nutrition and public health professionals to adapt to a rapidly changing world. Bringing attention to the otherwise hidden cultural contexts that infiltrate and permeate our scientific enterprise will help prepare our young scientists and future professionals in the following ways:

- Recognize and examine the cultural grounding of their professional training;
- Identify and examine the dimensions of culture embedded in accepted approaches to scientific inquiry.
- Recognize the culture they bring with them into intercultural interactions;

Below is a question I have put in front of our nutrition science graduate students choosing to take the preliminary exam for their PhD.

“The randomized controlled trial (RCT) is often considered the ‘gold standard’ of evidence for testing the health effects of a defined agent or intervention. Like any other method of inquiry in nutrition science, RCT methodology offers its own strengths and limitations, attributable partly to its presuppositions (antecedent convictions about how the world works). For example, RCT methods presume that randomization and subject selection criteria adequately control for human heterogeneity intrinsic to study populations. But we now know something about how genetic polymorphisms can influence an individual’s response to diet. The world of ‘omics’ - nutrigenomics, transcriptomics, proteomics, and metabolomics - gives us deeper appreciation for the complexity of how human individuality and heterogeneity might influence diet and health relationships. Many experts now believe that nutrition advice should be individualized. Yet RCT’s are designed to detect common-denominator relationships that hold for groups.

- a) Present a critique that outlines the strengths and limitations of RCT methodology in the context of the current world of nutrition science.*
- b) Your critique should include attention to the relevance and validity of basic presuppositions and assumptions inherent in RCT methodology.*
- c) Conclude by taking a position as to whether the RCT still deserves its ‘gold standard’ status. Could or should the RCT be revised, revamped or retired in light of emerging understandings?”*

This question asks our PhD candidates to redirect some attention toward our framework, a small but important step toward addressing Dr. Butterfield’s concern. In 2018, I suggest that we can no longer normalize professional practice as somehow disconnected from culture, as transcending culture, or assume that we inhabit the ultimate, de-contextualized reference point for understanding nutrition-related concerns regardless of cultural context.

Our world is now changing rapidly yet our hidden subjectivities presume a world that is stable and predictable. Globalization in the 21st century has created rapidly changing demographics. If we are to successfully prepare students to compete and thrive in 21st century environments, we must develop their capacity to recognize the mental models we teach for what they actually represent. To do less is to be complicit in passing along pre-fabricated and unexamined mental models without equipping them with the capacity and disposition needed for a disciplined and rigorous self-interrogation.

Hidden Subjectivities for Consideration^{82,83}

Any propositional knowledge system is grounded within and bounded by presuppositions of how the world works. Such presuppositions are not products of science, rather they are *a priori* convictions. They reflect the cultural worldview from which the science emerges. Therefore they are inescapably cultural and subjective.

If we take the opportunity to develop a capacity for a discourse of hidden subjectivities, we are likely to become more aware of the extent to which our conscious attention is governed by implicit presuppositions. I would argue that “good science” would have us direct skeptical inquiry toward surfacing and examining our presuppositions, and to the extent to which these ideas might be unnecessarily constraining our thinking and progress.

The list created here comes from a synthesis of two publications and is intended as a starting point for further reflection, conversation and deliberation. It should be noted that these presuppositions reflect a positivist philosophy that has met with increasing challenge over the past half-century yet continue as central to many scientific disciplines; have slowly evolved in the past few decades as various disciplines within Modern science; have begun to move past their positivist roots.

Realism - The belief that material objects exist in themselves, apart from the mind’s consciousness of them.

Scientific realism - the belief that science can describe reality as it exists independently of any observer. Science is trying to discover what is really going on in nature, beyond the scope of appearances; it is aiming at understanding how nature works. Formulation of scientific theories aims to give us a literally true story of what the world is like and that acceptance of a scientific theory involves the belief that it is true.

⁸² Wallace, B.A. (2000). *The taboo of subjectivity. Toward a new science of consciousness*. Oxford University Press, New York, pp17-39, 2000.

⁸³ Aikenhead, G. and H. Michell. (2011). *Bridging cultures. Indigenous and scientific ways of knowing nature*. Pearson Canada, Toronto, pp33-62.

Constructive Empiricism alternative - science aims to give us intelligible accounts of empirical evidence.

Knowledge is perceived as a **thing** (ie noun), separate from the human knower, discoverable, or awaiting discovery, through scientific investigation. In a capitalistic society, knowledge becomes commodified as intellectual property.

Dualistic Separation of subject from object, mind from body, scientist from nature, subjective experience from objective knowledge. This has led to the concept of nature/universe as a collection of objects with material essence only.

Scientific Materialism - an interpretation of science wherein only physical phenomena are considered real. The following sacrosanct theories and *a priori* statements are rarely presented as discreet ideology and often misleadingly equated with science itself.

- **Objectivism** - The belief that there is an independent, objective, physical reality outside of our minds and beyond our thoughts, which should be studied by minimizing subjective biases. Science deals with empirical facts tested by empirical methods, verifiable by third-person means; resultant knowledge should be observer independent.
- **Metaphysical realism** - the belief that the universe exists independently of all modes of subjective inquiry and can be known by humans as it exists in itself. Objects of scientific inquiry are thought to exist objectively and independently of any empirical descriptions or interpretations attributed by any subjects.
- **Closure Principle** - “The world is causally closed.” Only material or physical influences can affect any aspect of the natural world.
- **Universalism** - natural, quantifiable, regular laws govern the course of events in the universe and apply uniformly throughout the universe, whether in the center of a cell or the center of a star.
- **Monoism** - further asserts one unified universe consisting of generally one kind of stuff that can be described completely by physics.
- **Physical Reductionism** - The belief that nature can be reduced to physical entities and their functions, each isolated from the rest, having no

connections except for patterns imposed by the laws of nature. Macro-phenomena are the causal results of micro-phenomena.

Values from Longino, H. 1996. Cognitive and Non-Cognitive Values in Science; in *Feminism, Science and the Philosophy of Science*, Nelson & Nelson, Kluwer, Great Britain.

- Empirical adequacy
- Accuracy
- Internal consistency
- External consistency
- Simplicity
- Fruitfulness
- Novelty
- Ontological heterogeneity

Implications for Research

Indigenous Peoples of the Americas have made many substantive contributions, developing sophisticated systems of agriculture that have given us beans, corn, potatoes, pumpkins, squash, tomatoes and over twenty other foods⁸⁴. The original 1820 edition of the Pharmacopeia of the United States of America contained more than 200 plant medicines used by Tribes⁸⁵. Daniel Moerman reports that of the 31,566 kinds of vascular plants found in North America, American Indians used 2874 of these species as medicines, 1886 as foods, 492 as fibers for weaving, baskets, building materials etc., and 230 as dyes⁸⁶. All told, they found a useful purpose for 3923 kinds of plants. It is often forgotten that, prior to western influences, heart disease, diabetes and cancers were unknown to the Indigenous peoples of the Americas.

For many years such knowledge has been appropriated without acknowledgment or compensation, absorbed into scientific advancement. Might it be possible that the human capacity for knowledge in all its diverse forms represents a resource that deserves our respect on equal terms with Eurocentric sciences? I have found that Indigenous Peoples have much to offer those who are open to learning. I also

⁸⁴ Keoke ED, Porterfield KM. *American Indian contributions to the world. 15,000 years of inventions and innovations*. New York, N.Y: Checkmark; 2002.

⁸⁵ Vogel VJ. *American Indian medicine*. Norman, OK, University of Oklahoma Press; 1970.

⁸⁶ D. Moerman, *Native American Ethnobotany* Portland, OR: Timber Press; 1998.

can find no good reason for science professionals to dismiss, devalue or overlook human knowledge resources. Concern for Type I error does not justify an open door for Type II error. That is simply not good science. This publication was written with the hope that the culture giving rise to this shortsighted outlook and behavior holds the capacity to transform itself for a better tomorrow.

Reflect and Apply Learning

Building Relationships across Culture (from Healing Roots⁸⁷)

Study Your Culture

- ◆ Start seeing your culture in the everyday, how it affects your attitudes, behaviors and practices. Knowing your own culture will help you to recognize and be more sensitive to the ways of other cultures.
- ◆ Know your own ethics and values. Use clashes as opportunities to reflect upon your own convictions and know them more clearly and deeply.

Recognize Difference between Cultures

- ◆ Be aware of the whole spectrum of cultural characteristics - from those we have in common to those that are very different, from those we understand and agree with to those we find offensive or difficult to understand. Our awareness of this totality helps us not to label people based on one characteristic, but allows us to be respectful and empathetic and to stay open to learning.
- ◆ Mirror exercise: When you notice difference, what is your culture's equivalent?

Study Yourself, Your Reactions

- ◆ Trace back the cultural assumptions and values underlying your reactions.
- ◆ Study when listening is hard for you and when it is easy.
- ◆ Notice when you listen in your professional role and when in your personal role.
- ◆ Notice when you see yourself as an individual and when as a member of a group (European American).

⁸⁷ Healing Roots Community (2013). <https://healingrootscommunity.com/>

- ♦ Make note of your emotions/body language.
- ♦ Recognize when an interaction is colored with mistrust from past experience, from the history of oppression/trauma. Recognize there are larger issues in intercultural interactions that are beyond the two people in that interaction. History lives in the present. Taking it personally and becoming defensive escalates cultural collision.
- ♦ Process feelings of guilt or shame with others from your culture. Guilt/shame is an indicator that something needs to be made right. In intercultural contexts, that change needs to be recognized and implemented collectively; it is unhealthy for an individual to hold.
- ♦ Dig deep for understanding. Ask “why?,” and “why not?,” especially of yourself.

Practice Deep Listening

- ♦ There are ritual aspects to listening - it is a connecting, and in the connecting many things can happen. People can receive recognition and a sense of being valued, or people can feel invisible and ignored. Being listened to can release pain and frustration and create healing. Watch the dynamics of the conversation.
- ♦ As you listen: Where does most of your energy go -- trying to understand or forming/defending your viewpoint? Practice putting yourself in the other's shoes.
- ♦ Recognize when you are judging based on your cultural values and beliefs. Practice suspending judgment in the moment, so you can listen and understand.
- ♦ Read body language.

Practice Respectful Participation

- ♦ Invite other people to share responsibility so no one person is overwhelming or overwhelmed - everyone is contributing.
- ♦ Ask questions, not out of curiosity or probing, but out of a sincere desire to understand better. You can't expect to know everything about another's culture.
- ♦ Acknowledge people's pain, no matter what you may think about it.
- ♦ Make the space for ritual and ceremony as resources.
- ♦ Be honest.
- ♦ Pick your battles; don't respond to every irritation.
- ♦ Don't try to change people.
- ♦ When things get hard, resist the impulse to withdraw. Conflict often contains the greatest teaching.

- ♦ Take the risk of making mistakes and make a connection. Then you keep learning.
- ♦ Find people to talk to about these issues. Process your experiences and perceptions with others of your own culture and with people of other cultures.
- ♦ Admit it when you don't understand something.
- ♦ Remember that relationships, particularly relationships across culture, take time. Be patient.
- ♦ Think of culture as a resource.
- ♦ Keep your sense of humor. It can work wonders.

"Through our scientific and technological genius, we have made of this world a neighborhood and yet we have not had the ethical commitment to make of it a brotherhood. But somehow, and in some way, we have got to do this. We must all learn to live together as brothers or we will all perish together as fools."

- Martin Luther King, Jr.

"At its most basic, transformational change entails the very simple yet radical act of waking up to what is actually so, and engaging with the world from this nuanced place of knowing! This waking up often involves quieting our minds so that we can actually listen and hear others, and it often involves turning our gaze inward in order to understand the subtle workings of our own interior. It invites us to be genuinely present in each moment and to align our actions with what is actually true right now."

- Tara Brown

Additional Reading

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Glossary of Terms

A glossary of terms is important because language itself reflects a cultural worldview. This creates a challenge of translation that is inherently imperfect and potentially misleading. Although care has been taken to minimize misunderstanding, some is unavoidable in moving back and forth between cultures. Every act of comprehension is an act of simplification.

Assimilation - The process of adapting to a culture other than one's own. Assimilation may be experienced along a continuum from a voluntary, positive experience to a forced, destructive experience.

Colonization - Physical occupation, domination and control of Indigenous Peoples and the environment. Includes cultural, social, economic assimilation; religious and academic indoctrination.

Community - A way of organizing based on belonging that gives meaning to human life and where a person is socialized.

Constructivism - A paradigm wherein reality is constructed through the perceiving human mind in a variety of ways. People are capable of taking the perspective of other cultures to some degree by developing empathy and intercultural sensitivity.

Cosmology - Theory describing the nature and natural order of the universe. Significant cultural differences exist with respect to cosmology.

Cross-cultural engagement - The craft of engaging Indigenous and other non-Eurocentric cultures for the purpose of interacting effectively within those cultural contexts. This includes adapting one's thinking and behavior.

Culture - The coordination of meaning and action within a collective. Practices that people create to give themselves continuity and cohesion across generations; highly patterned, unspoken implicit rules, behaviors and thoughts which control everything

that we do. A people, peoplehood is at the core of culture.⁸⁸

Cultural Interfacing - A strategy to bring cultures together to stimulate thinking, feeling and knowledge production for social transformation⁸⁹. It juxtaposes two or more cultural knowledge systems on equal footing and level ground where each contributes resources to framing and solving problems.

Cultural Sensitivity - Consciously aware intercultural experience distinguishing increasingly complex perceptual difference.

Decolonization - The active and deliberate undoing of colonization in social, environmental, cultural, educational and/or spiritual contexts.

Epistemology - The study knowledge; of what counts as knowledge, what knowledge is legitimate, what is important to know. Significant cultural differences exist with respect to epistemology.

Eurocentric - Reflecting a tendency to interpret the world in terms of European or Anglo-American values, knowledge systems and experiences.

Euro/Western - Reflecting a knowledge system that has become global, yet reflects a tendency to interpret the world in terms of European or Anglo-American values, knowledge systems and experiences. Similar to Eurocentric.

Indigenous Peoples - The descendants of the first peoples to inhabit a locality and self-identify as members of a collective, according to the United Nations.

Wisdom - A deep and life-tempered integration of understanding, knowledge and lived experience. It includes a sense of balance and harmony with the uncertainties and rhythms of life and an awareness of how things play out over time.

Worldview - A constellation of presuppositions, convictions and beliefs we hold that form the basis for how we perceive and comprehend the world. Worldview is a dimension of culture that holds identity.

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Acknowledgments

The author wishes to acknowledge the Elders and staff of the Cultural Wellness Center in South Minneapolis and to the European American Learning Community for their continued guidance, patience and mentorship in my cultural growth and development. I also owe a debt of gratitude to the late cultural leaders Earl Hoaglund and Paul Schultz of White Earth Nation for sharing their teachings and wisdom, and to Joe LaGarde, also of White Earth Nation, for 25 years of his mentoring, friendship, partnership and support. The writing was conducted as a partnership of the Cultural Wellness Center Fellowship Program and the University of Minnesota. I am grateful for the faithful assistance and collegiality of Dr. Asha Lal Tamang in its completion. This book was supported by a generous gift from the *Seeds of Native Health* Campaign and the Shakopee Mdewakanton Sioux Community. This work was supported additionally through many years of funding from USDA Agricultural Experiment Station Project MIN-54-059 and University of Minnesota Extension.

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