CHAPTER 3

Understanding Community Knowledge Cultures

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Abstract

This chapter delves deeper into the concept of *community knowledge* introduced in Chapter 2, utilizing primary and secondary data from K4C hubs involved in the Bridging Knowledge Culture project. Our focus lies on the multifaceted nature of knowledge within community contexts. We pay particular attention to how knowledge is understood in community settings, the purposes of community knowledge, and how it is created, disseminated, and stored. We also discuss how power inequalities between research partners influence the utilization and validation of community knowledge vis-à-vis academic, scientific knowledge. The chapter concludes by summarizing seven essential attributes of community knowledge.

1 Introduction

Community knowledge remains an essential source of communities' survival across the globe, which helps them deal with health, environmental and other crises. Locations where K4C hubs are hosted have a rich base of community knowledge that has largely remained undervalued and undocumented. Community knowledge is often considered inaccurate compared to western formal sources of knowledge, since it does not adhere to the formal codes of academic knowledge production. While the introductory chapters of this book defined *knowledge cultures* (KC) in the context of CURP from a theoretical and conceptual perspective, the case studies will show the diverse influence of KC on knowledge production processes both in academic and community settings. This chapter contributes to the understanding of KC by further exploring

community knowledge and related knowledge production practices – the inner circle of the BKC analytical framework presented in Chapter 2. Based on primary and secondary information provided in the case studies and regional syntheses, this chapter synthesizes the fundamental assumptions, patterns of meanings and power dynamics around knowledge production processes that characterise the diverse community knowledge cultures.

2   How Do Communities Describe Knowledge?

Knowledge is described in myriad ways by communities. Communities in the K4C regions illustrate the connection between diversity in cultures and ethnicities, and the number of local terms that can be translated into *knowledge* in the English language. For instance, within the national language of Indonesia, the term *pengetahuan* denotes knowledge as having the capacity to see, understand, and realise. In the Javanese tribe, a different ethnic group within the Indonesian nation, there exist the words *ngelmu* (deep understanding of certain disciplines), *kawruh* (physical and mental understanding), *pepadhang* (clarity of explanation), or *pitutur* (quotes). There are also many terms that have the same meaning in other tribes – *nyuprih pangaweruh* (exploring the depths of inner and outer knowledge) within the Sundanese community, *elmoh* (life knowledge beyond daily knowledge) among the Madurese, *isseng* (how things work) among the people at Makassar, *poting* (knowing how to control oneself) within the Batak peoples, *bakunya, bapadah, padah* and *tumbur* (to know and tell) among the Banjar ethnic community, and *nawang* (knowing) among Balinese people. In Malaysia, people also use the term *pengetahuan* when speaking of knowledge. It originates from the root word (verb) *tahu* meaning 'to be aware of'. It is defined in three ways in the context of: (a) *Ilmu* (which represents any form of knowledge, or a specific field pertaining to specific knowledge); (b) *Keadaan mengetahui* (which is the state of being); and (c) *Hal mengetahui* (which is the extent of how much knowledge one possesses; knowledgeable). There are other synonyms of *pengetahuan* including the words *faham, mengerti, mengetahui, sedar, mengakui*, and *enga*.

In Hindi, one of the official languages of India, the term *gyaan* means intellect or knowledge, while in Sanskrit *vidyā* means learning and originates from the word *vid* that means 'to know'. It refers to true knowledge of the self and entails a spiritual as well as philosophical dimension. In Urdu, the words *agaahi* or *shaoor* refer to 'awareness', while *marifat* means 'knowing'. Regional Indian languages also have different terms for knowledge, such as *jñāna* in Bengali.

The words used to translate knowledge into local or mother tongue languages not only indicate different aspects of reality that are known, but also different perceptual and cognitive processes involved in the act of knowing. For instance, in Spanish speaking countries, like Colombia where the University of Andes hub is located, knowledge is usually translated as *conocimiento*. This noun comes from the verb *conocer* that refers to a perceptual process that is direct and immediate, and indicates a conscious contact with the known object through experience and, in particular, perception. Accordingly, animals and human beings have the capacity of *conocer* (e.g., to know objects, persons, places). Another term in Spanish that can be translated into English as to know/knowing is *saber*. Contrary to *conocer*, the verb *saber* indicates an indirect, prolonged and inferential process supported by reason that also implies the ability to learn. In this case, only human beings have the capacity of *saber* (e.g., to know concepts, ideas, skills, etc.). The noun related to the verb *saber* is *sabiduria*, which is translated in English as 'wisdom'. *Sabiduria* not only involves knowledge, but also insight, judgement, attitudes and beliefs, age and experience. Another related word is *saberes*, which is associated with ancestral knowledge (Chamorro & Sicard, 2021; Mendiwelso-Bendek et al., 2020), referring to the traditional knowledge that arises from the daily relationship woven in the interactions between human beings, between human beings and nature, between human beings and the social and natural phenomena that surround the experience of encounter between academia and communities.

A clear difference between knowledge and wisdom is also stressed in the case study from the Durban University hub, which focuses on creating an integral education program underpinned by Indigenous knowledge values and the African philosophy of Ubuntu – a non-Western philosophy that rejects individuality and emphasises a relational form of personhood, in which one's sense of self is shaped by the relationships with other people (Ogudeet al., 2019). In the field of early child development, community partners agree that knowledge is what you know to teach a child, and that wisdom must come from within and must include love. "Information/knowledge is collected from an external source and wisdom comes from within the person. It is innate … love comes from within to teach a child, so it is part of wisdom" (Research participant in Durban case study). Implicit in this observation is that knowledge is transmitted and/or acquired through instrumental understanding (thought-based), while wisdom does so through relational understanding (emotion-based). Knowledge can be learnt and taught, while wisdom is not always learnt as it comes from within and from experience, and depends on the exercise that is being accomplished, which illustrates the difference between the promotion of an instrumental versus a relational approach to knowledge creation and dissemination.

3   Purpose of Knowledge in Community Settings

Community knowledge is closely interwoven with people's everyday lives, and exists across a wide range of subject areas, depending on the needs of the specific community. It helps people complete their daily activities and provides useful means to cope with changes in their surroundings. For example, Ugandan Acholi sayings and stories for children about hygiene (e.g., not defecating in riverbanks, or sitting with an uncovered bottom on the grinding stone) can be seen as means to control human behaviour among the younger individuals of the community, and help them prevent diseases (African Manners, 2012; Banya, 2015).

Another example comes from the Maasai's knowledge that is used in traditional water management practices, which are highly effective in semiarid lands of Tanzania and considered by local people as "somehow better than what is usually taught in formal [engineering] classes" (Research participant in Tanzania hub case study). Application of community knowledge to water management practices is also found in Karnataka, South India, where a *neeruganti* (a highly appreciated member of the community and recognised for his high standards of justice) is appointed by the community to manage water in a just and equitable manner (Reddy, 2011). The neeruganti ensures equal water supply to all fields, decides on the water supply schedule for the community, informs about the schedule to the community, ensures proper maintenance of the outlets of tanks, and organises Ganga Pooja (worship ritual of the banks of the river) to invoke the blessings of the God for plentiful water in the tank. Despite often being illiterate, the neerugantis possess immense knowledge and skills in water management (ibid.).

In the Orang Asli community in Malaysia, the use of Indigenous knowledge is directed toward the preservation of society from any element, whether from supernatural powers or certain groups. Such knowledge is usually held by the Elders of the community, who are highly respected for their patience, enthusiasm, sense of justice and expertise in the mastery of knowledge, experience and skills. Such leaders normally have some specific set of skills, for example, traditional medicine, and are able to continue the legacy of Orang Asli customs and traditions, as well as act as mediators for any social issues surrounding the community. Similarly, the Baigas (a tribal group in Chhattisgarh, India) are well known for their knowledge of medicinal plants and healing practices, as well as for their traditionally minimalistic way of life. The Baigas create knowledge based on natural and traditional understanding of the world through the experience of living in continual movement with nature, especially forests. Local knowledge regarding traditional healing practices is not particular to Baigas,

since almost every ethnic group in India has their own traditional healthcare system.

Traditional knowledge of Indigenous communities in Indonesia holds relevance regarding several subjects, including the early warnings for natural disasters. In several places in Papua island, such as Nabire and Manokwari, the local communities believe that the appearance of marine animals to the surface is a warning that a natural disaster will occur. Another example is the knowledge of farmers in Pliken village, Banyumas regency in Central Java. The farmers have the knowledge and the ability to protect the plantation ecosystem from pest attacks, by forming refugia around them to naturally inhibit pest attacks, using flowers such as *kenikir*, which are considered a highly effective in pest control. In a similar way, based on nature observation, Indigenous knowledge of tribal communities in India is used for weather forecasting. In Rajasthan, for instance, tribal communities have, over centuries, developed the ability to recognise patterns in weather changes and the appearance of certain species during specific seasons to draw conclusions about environmental and climatic conditions. The colour and location of clouds is the basis for assessing the probability of floods. Unusual sounds and behaviour of wildlife, changes in flow and colour of water, and change in wind direction helps in the assessment of climatic variations (Pareek, 2011).

4   How Do Communities Produce Knowledge?

Community knowledge is produced in several ways, but most often emerges from people's practical experience. As local knowledge is mostly gained through practice, the learning processes do not require formal education or training. For example, local health traditions in India are evidence-based and experiential, based on various streams of knowledge: oral folk stream (folk medicine); codified classical stream (Ayurveda, Siddha, and Unani medicine); allied systems (yoga and naturopathy); and systems of foreign origin (Homeopathy, western biomedicine). Folk stream knowledge systems have presence all over the country; they are diverse and varied, oral and undocumented. Such knowledge is dynamic, innovative, evolving and specific to the ethnic community. They are generated over centuries by sensitive and intelligent lay people – tribals, farmers, artisans, shepherds, barbers, housewives, wandering monks. They consist of home remedies, food and nutrition, obstetrics, bone setting, treatment of poison, chronic and common ailments, acupressure, pulse diagnosis, animal and mineral products, and medicinal plants, such as the use of the Alstonia scholaris tree to prevent malaria during monsoons (Gangadharan,

2021). Folk medicine in India is based on the use of over 8000 species of plants, several hundred species of animals and several minerals and metals, as well as around 50,000 herbal and natural product formulations. The folk stream has nutritional knowledge of thousands of ecosystem specific food resources that are not documented (ibid.).

In Gulu, Uganda much of the knowledge production and learning is done through ceremony, dreams, dance and food around the traditional learning space, for example, the campfire. Indigenous knowledge is created and shared based on a broader use of all the senses and on a relational ontology which interprets and creates knowledge in a multi-modal and collaborative way with the non-human world and non-linear temporal perspective.

In Maasai communities of Tanzania, knowledge is created and transferred in a dynamic and horizontal way. The Maasai knowledge system can indeed be considered a continuously evolving living classroom or laboratory, where there are no formal roles as 'teachers' and 'students', and everyone learns from each other:

> We have no teachers, we teach ourselves. And we are learning from each other. When a neighbour fails, you learn from their mistakes and do something different. (Research participant in the Tanzania hub case study)

> We may not have received a formal education, but we know how life works here in the semiarid lands. We research, learn and acquire knowledge while working. You fail, you do it again, until you pass. (Research participant in the Tanzania hub case study)

Community knowledge is thus produced through oral and written practices, as well as through experiential learning. Most importantly, community knowledge is produced according to the needs of the particular community and, therefore, differs according to regional, cultural, linguistic and socio-economic specificities. The case study from Durban, South Africa, shows that knowledge creation depends on the context (space and time) within which the knowledge circle is located. If the location changes, it should be expected that the processes of co-construction may as well. Knowledge is understood by community partners as coming from experiences and, out of these experiences, they choose what knowledge to use and how. Even in urban settings, like Victoria (Canada), community organisations use community knowledge to inform their programs, services and other projects, which are designed and built based on a needs-based approach. Thus, their services and programs are unique to their own site. In this regard, reflective practice is a helpful means to improve

the effectiveness of their work and program when working with the community. The importance of reflection was also underscored by the Colombia hub to help think of knowledge production processes, incorporate and integrate the view of all the involved partners and stakeholders, and how knowledge products are generated.

5   How Do Communities Disseminate Knowledge?

Similar to knowledge creation, knowledge dissemination takes different forms in the community. In Indonesia, for instance, socialisation through informal gatherings, meetings and other forums are very common ways of knowledge sharing and transmission within the local community. Given that Indonesia is a country with communality as one of its integral features, it has many forms of informal gatherings. Religious ceremonies, ritual of the safety of pregnancy, rituals for sending prayers to those who have passed away, rituals for thanking God for the sea and land, and other traditional rituals are widespread. It is on such occasions that the local knowledge about life or community affairs is transmitted and shared.

Another form of knowledge sharing in communities is community festivals, such as the Indigenous community seed festival known locally as *Burlang Yatra* (Indigenous Biodiversity Festival) in Kandhamal, Odisha in India. This annual event collectivises millet farmers to share knowledge and practices, including exchange of Indigenous heirloom seeds. The festival rests on 'cultural sustainability', where food and nutrition interlock with seeds, and knowledge of an Indigenous food system. This can be linked to a sense of community defined as a process in which the members interact, draw identity, social support, and make their own contributions to the common good (NIRMAN, 2017). Similarly, among the Orang Asli in Malaysia, knowledge on the use and control of forest resources is shared in a ceremony titled *Cenagoh* that takes place where "permission is first sought from the friendly spirits before any land is opened for agriculture as a form of respect" (Kardooni et al., 2014).

Knowledge carriers of folk streams in India include, among others, birth attendants, bone setters, herbal healers and *visha vaidyas* who treat poisonous bites. The carriers of these knowledge systems transfer it from 'people to people', for instance from *gurus* (teachers) to their *shishyas* (students) guided by local cultural and ethical codes. It is a highly decentralised method of knowledge production. Looking across the social spectrum of knowledge creation and use, a particular ethnic community may specialise in certain local health practices. In India, for instance, the *navidhars* (the barber community

of certain locations in Tamil Nadu) are experts in treating skin ailments; the *kurubas* in Karnataka and the *konars* of Tamil Nadu (the shepherd or cattle rearing communities) are experts in veterinary medicine; while the Irula tribe is known for their skills in treating poisonous bites. The prevalence of a particular category of knowledge in a locality is related to the local needs. For instance, *pashu vaidyas* (veterinary healers) can be found in North Karnataka where cattle rearing is a major occupation; and *visha vaidyas* exist in dry and drought prone areas where snakebites are common (Gangadharan, 2021).

In addition, knowledges related to practical skills in fields such as fishing and farming are usually passed on to the younger generations through direct teaching by the older generations at the site of work. These are experiential learning systems that have been practised and preserved through generations within local communities across the world. Information and awareness about environmental challenges is also communicated across generations in several communities. For example, in Ghata village in Haryana, India, access to clean drinking water is a pressing challenge. Local children are aware of this, learning about it from their parents and elders in their family, and they are now able to identify potable and unpotable water sources (PRIA, 2022).

In Gulu, Uganda, there is a strong focus on bringing Acholi Elders together to inform and lead gatherings, particularly in partnership with the herbal medicine community. This local knowledge is, however, difficult to transfer in written format as it is place-based, and requires telling, feeling and sensory experience. It goes beyond intertextual and inter-language experiences, and it cannot be easily understood through a Western lens.

In the predominantly patriarchal Maasai culture in Tanzania, knowledge dissemination can be considered an 'inheritance process', that is, a Maasai child stays close to his father while he performs his day-to-day duties, so the child sees his father working and acquires practical knowledge. Interestingly, this is not considered a one-way process; fathers and grandfathers also acquire knowledge from their children and grandchildren. Children, who can be creative and innovative, work alongside their fathers and relatives. The children do not passively watch their Elders to learn; it is a living classroom for both groups – demonstrating knowledge exchange between Elders and the younger generation.

In addition to cultural events hosted in the community, forms of traditional education and boarding schooling systems are also ways in which knowledge is shared and transmitted. In India, among the Muria tribe, young people stay and communicate with one another in institutions called *ghotul* (youth dormitories) where they share knowledge and life experiences. Similarly, among

the Oraon tribal community in Jharkhand, there is the concept of the *dhum-kuria*, a youth dormitory, where youths participate actively in the process of knowledge sharing with each other. *Gurukul* is another traditional system of education where young scholars learn from Elders or *gurus* using experiential practices.

These, and several other examples explained in the case studies that follow, show how community knowledge production mechanisms cannot be separated from the knowledge dissemination process. Community knowledge is created in the process of sharing it in different, informal ways and through a variety of conduits. Oral traditions, rituals, customs and art forms of knowledge transmission and sharing have existed and sustained communities for millennia.

6   How Do Communities Store Knowledge?

Communities preserve their knowledge in ways very different from how academic scholars store knowledge. Academic knowledge is primarily stored in written texts and repositories like journals, newsletters, books and libraries. Very often such stored academic knowledge remains limited in its dissemination, locked behind pay walls and available to the privileged few. Community knowledge is stored in the oral traditions, folklore, art, music, dance, poetry, and even tattooing customs and practices. Community knowledge surpasses the barriers of language and written text, since it needs to be easily accessible in understandable forms for the benefit of the community.

In different geographical regions, Elders of the community become the knowledge holders and are responsible for passing on the knowledge to the next generation. Human memory is a repository of knowledge for a community. For example, among the Orang Asli in Malaysia, biodiversity is an integral part of their identity and land is the resource base of the community. Elders share traditional conservation and land management practices with the next generation (Kardooni et al., 2014). Medical practitioners in India emphasise learning verses of *Ashtangahrdayam* (a treatise of Ayurveda) while learning the practice of Ayurveda. In Kerala, the *ashta vaidyas* (a group of Ayurveda practitioners) begin their study of Ayurveda by memorising the 7120-odd verses of the Ashtangahrdayam (Menon & Spudich, 2010). Another way of storing community knowledge is through human experience. Sushruta (ancient Indian physician and considered 'Father of Surgery') in his teaching methods emphasised practical learning, where students watched and aided their teachers in the preparation of Ayurvedic medicines. Surgical training

involved students practising surgical procedures on vegetables, fruits and body parts of animals. Careful observation of a dead body aided acquiring anatomical knowledge (Saini, 2016).

Indigenous communities store and transmit knowledge in myriad ways:

– Poems can be used to remember the past in the present, encapsulating the interplay of language and the socio-cultural and physical environments in memory construction (Genis, 2019). Poems are a form of production of Indigenous knowledge, but when diluted by modernisation, a part of it gets lost.

– Proverbs use figurative and literal meanings and carry lessons about ways of life that are most significant for the younger generation that has not experienced life in full and needs to learn about community customs and culture. Proverbs are a source of Indigenous knowledge that is useful in guiding, instilling a sense of pride and helping to establish an identity (Mvanyashe, 2019).

– Stories/folktales are a practice in Indigenous cultures that expresses their experiences, validates experiences, nurtures relationships and sustains communities. Indigenous peoples engage in oral traditions to examine current events and Indigenous understanding in ways consistent with traditional worldviews and cosmologies (Iseke, 2013). These stories/folktales have been passed down orally and there is scarce literature on them written by Indigenous peoples; most are documented by Westerners, therefore diluting and losing cultural integrity.

– Documents on land access and ownership, and communal/tribal lands is viewed as central to the identity and spirituality of Indigenous peoples. Indigenous peoples believe land is neither a commodity nor an individual possession, but a gift from the Creator. Land embraces the ecological, cultural, cosmological, social and the spiritual. The juridical considerations engrained in their social systems result in values, norms and observances, that is, Indigenous knowledge, that protects natural resources, the environment and wildlife (Tafira, 2015). However, when colonial modernity was ushered in, it brought a historical experience comprising murder, genocide, destruction of existing Indigenous knowledge and large-scale dispossession of lands.

– Music and dance are a frame of Indigenous African heritage and a conduit to rationalise and perform norms that aim to humanise the individual and bond humanity. The sound of music is a spiritual force that energises and enriches the mind. Dance, deriving from the conformation of musical structures, en-spirits the dancer, thereby imbuing benevolent spirituality and affording psychotherapeutic healing (Nzewi, 2006).

– Indigenous knowledge is also expressed in agricultural practices, equipment, materials, plant species and animal breeds. These knowledge systems represent mechanisms to ensure minimal livelihoods for local people. Traditional knowledge systems are often elaborate and adapted to local culture and environmental conditions, tuned to the needs of local people and the quality and quantity of available resources (Akullo et al., 2007). Indigenous knowledge pertaining to the use of wild plants is localised and is generally unknown outside the immediate community where the species are used. To broaden understanding and mainstreaming of such Indigenous knowledge, there is a need for effective documentation and validation of useful Indigenous technologies. Conservation and management of subsistence farming practices may be possible only if they are linked to the preservation of the cultural diversity and economic viability of the local farming populations (Rankoana, 2017). Such Indigenous knowledge systems have developed over generations through the process of man-environmental interaction and its continuity depends on its transmission and the ability of the younger generation to acquire and practice it.

– The relationships between the natural and supernatural world, the living and the dead, and the normative continuity between an individual and community is at the centre of how knowledge is transmitted through religion and spiritualism. With the introduction of Christianity and Islam, they have become the most dominant religions in the African continent but, through all adversity, the African traditional religion has endured as a vital and prime Indigenous knowledge system that still holds the Indigenous peoples together. The Acholi people of Northern Uganda maintain the cultural beliefs of the spirit world and social order with a wealth of knowledge inherent in the positive practices that are part of Acholi culture. Such practices support the resolution and management of conflicts for peaceful coexistence among those in the local communities through ritual purification, cleansing and reintegration of individuals into community, and maintenance of peace and harmony in society (Jendia, 2019; Tshimba, 2015).

Owing to the fact that most Indigenous community knowledge is undocumented, it is all the more relevant to recognise, value and preserve such knowledge systems. Overall, we echo the words of Dr. Wanosts'a7 Lorna Williams, one of Canada's leading experts on the promotion and restoration of Indigenous culture and language. The ways in which local communities, including Indigenous peoples, transmit and transfer their knowledge and wisdom through varied and multiple practices and conduits have not been generally accepted in the world of academia, and Euro-Western perspectives on local

knowledge tend to filter and place it in an abstract process in which knowledge creation, storage and transmission are disconnected rather than intertwined (Williams, 2019).

7   How Are Power Asymmetries Embedded in Knowledge Utilisation in Communities?

Validation of knowledge, that is, the process of ensuring that the knowledge being created, shared or used is trustworthy and can be relied upon to make informed decisions, is one of the knowledge production processes where power imbalances between research partners becomes more evident. In the academic world, knowledge is validated by pre-defined authoritative persons (i.e., 'the expert in the field', 'the peer reviewer'), who are 'qualified' to scrutinise the knowledge produced, according to specific rules and criteria (e.g., objectivity, reliability, generalisations) that define who can possess and share the knowledge (through journal articles or book chapters, for instance) in order to contribute to the advancement of that specific field or discipline. Community knowledge, on the other hand, is generally validated by its practical application, after its production and dissemination. When a certain knowledge, such as techniques for daily activities for fishing, farming or artwork, is practiced by the community, it is community-validated. In community settings, knowledge validation is crucial because information is often passed on through informal channels, and does not need to be fact-checked or peer-reviewed.

Such a validation process by communities may be seen as insufficient from a Western scientific perspective and the academic partner may not accept it as 'legitimate'. Community knowledge is then often not considered as authoritative or as accurate as knowledge that is produced and stored in the academic world. Traditional modes of knowledge sharing and transmission within communities (including direct sharing through generations, poems, storytelling, socialisation, through gatherings and so on) are not recognised as knowledge by academia. This reflects a clear power imbalance in favour of academia.

As a consequence, one can observe, in Eastern Africa for instance, a general displacement of the traditional African knowledge 'authors' from all forms of formal education. This has mainly resulted in the incompleteness and/or disruption of intergenerational knowledge transmission. There is indeed a vast amount of written academic literature on African knowledge cultures and community knowledge; however, it is almost always authored or funded by 'foreigners', or those outside the community that is being documented. The Indigenous-initiated literature available in written form is generally produced

for cultural preservation and activist healing of communities through a reclamation of knowledge. A key observation coming from the African regional synthesis is that much of the civil society and NGO literature is recycling Euro-Western epistemology and demonising local knowledge. Civil society organisations are using this recycled knowledge for a Western style of development and for reporting/attracting funders. At the same time, there are efforts from university settings to produce and reclaim Indigenous knowledge. This is reflected in academic writing and in community engaged programs such as the Gulu University Indigenous medicine program that integrates practitioners (students) with academics (teachers) in a certificate program. The Indigenous interpretation of medicine is far broader than Western medicine, and so the program encompasses holistic and integrated community learning.

The Gulu case study also highlights the importance of healthy relationships (the hub itself is considered a network of very diverse partners) and, while participants generally agreed that most partnerships are community oriented, the core problem that stakeholders observed was that community had little agency when it comes to relationships. Often the Gulu hub and university programs enter partnerships from a position of power, because they have resources and understand the institutional systems. Decisions are also made by researchers or the lead team, not the community. Starting a partnership with and within the community is seen as an important strategy for sharing power and making sure that the research and results benefit those involved in it. Additional challenges include accessing funding, navigating funders' demands, deficient communication structures and challenging the deeply ingrained epistemic injustice and narrow perspective of what is 'valid' research.

The NWU-SFU hub (South Africa) indicated that the community does not really consider the knowledge it holds to be as important as that of the health professionals from the university. However, they feel that their knowledge is validated though generational successive use. They evaluate the knowledge received by testing its usefulness in improving their health. A similar finding was evident in the other South African hub at Durban, that is, community knowledge is suppressed because community members do not have the necessary academic qualifications, even though "academics are lacking in practical experience and have no love to share with the children" (Research participant in Durban case study). Community members also mentioned fear as the main obstacle to the co-creation of knowledge. "Fear is the major obstacle for communities: they hold back their knowledge because they are scared that they do not know much. Fear of academics as experts" (Research participant in Durban case study).

The Salish Sea hub case study also showcases a series of power imbalances, namely, a discrepancy in perception of what community knowledge is and the value it holds; challenges for local communities to navigate relationships with universities given the specific mandate and complex organisational structure of the institution; a lack of practice by academics in listening to communities; and an urgent need for reflection and cultural awareness when working with communities.

The regional syntheses and case studies developed for the BKC project suggest that globally traditional knowledges are often racialised or simply classified as inferior, evil or witchcraft. Scientific/academic knowledge receives higher appreciation and is considered 'more valid' and superior. It is in the construction of knowledge where dynamics of power and domination of the academic expert's vision are reproduced, which makes the de-anchoring of the expert a day-to-day ethical-political issue. Community members have a critical role in knowledge validation by questioning the accuracy of information, seeking out sources to confirm or refute such knowledge, and sharing their own worldviews and experiences to help validate or refine existing knowledge. Community organisations, such as those participating in the BKC project as hub partners, also play a role in knowledge validation by providing reliable information and resources to community members, facilitating conversations and information sharing, and promoting critical thinking and fact-checking skills. Knowledge validation in community settings can help overturn existing unequal power relations between HEIs and CSOs by bridging their diverse and sometimes conflicting knowledge cultures, in a way that helps prevent the spread of misinformation and build trust among community members, which is essential for effective communication, collaboration and decision-making.

8   Conclusion

The foregoing discussion in this chapter illustrates ways in which communities build their knowledge cultures, that is, produce, use, store and disseminate their knowledge. It shows community knowledge cultures are highly advanced that involve complex understandings of various subject areas. Since community knowledge is usually produced across long time periods, the insights drawn are thoroughly verified through several generations. Community knowledge cultures are inextricably linked with individual and collective values, as well as higher level philosophical and spiritual dimensions of human existence, which makes the learning process more meaningful.

Community knowledge can be said to have the following characteristics:

1. Knowledge built in communities is directly related to the needs of everyday life situations.
2. Community knowledge is both pragmatic and normative.
3. Traditional, culture-based forms of knowledge exist in primarily oral forms that are passed down from generation to generation.
4. The process of knowledge creation and transmission/dissemination are inherently intertwined and cannot be separated. Suffused with spirituality and mediated through rituals of worship, community knowledge production and sharing are functional and need-based, rather than extractive and exhaustive (Gaudry, 2011).
5. Values of the community and surrounding eco-system shape internal validation of knowledge that is being produced, stored and shared. The validity of community knowledge is indeed demonstrated by the survival techniques that have been successfully used by countless generations, rather than by the criteria of modern occidental science.
6. Community protocols for knowledge validation are based on principles of cooperation (not competition), culturally resonant ethics (not procedural and bureaucratic), and responding to changes in the 'business of life' (not pre-determined and permanent). 'Community certified' and respected Elders are designated and accepted as knowledge-keepers and behaviour 'regulators', which is not substantially different from elderly and tenured full professors and institutionally promoted officials as knowledgeable academics.
7. Community knowledge is disseminated through a variety of means. Language has a critical role in the transmission of community knowledge as it is the vehicle by which taxonomic systems, metaphysical perceptions and codified knowledge are passed from generation to generation. The essence of community knowledge is indeed found in the language of the people. In order for community knowledge to survive and prove itself useful in the modern world, so must the language and oral traditions to which it is intricately linked.

Cultural forms, such as everyday rituals, symbols, languages and practices, 'curate' community knowledge, so inner understanding of meanings, feelings and norms are essential to make sense of community knowledge. Such traditional ways of knowing and being are however experiencing a significant decline, although in some countries like Canada efforts are underway to revitalize Indigenous languages and appreciate traditional knowledge (see Boyd, 2015; Government of Canada, 2019). The oral nature of traditional knowledge

makes it difficult to coexist with the current modern ways of knowledge production, resulting in traditional knowledge production being pushed aside since the introduction of modern ways of education and through other more aggressive colonial practices. In part, this is not surprising considering that traditional knowledge is created and shared based on a broader use of all of the senses and on a relational ontology that interprets and creates knowledge multi-modally and together with the non-human world in a non-linear temporal perspective. Putting such knowledge into text would be a difficult task because it requires telling, feeling, place, and sensory experience, which becomes limited as soon as it enters written format.

Modern/western education systems and pedagogies influence how people know community knowledge and their understandings of how such knowledge is understood, created and transmitted. It becomes a completely different story that gets told when knowledge production mechanisms are separated from knowledge dissemination. Community knowledge moves beyond intertextual and inter-language experiences to a completely different realm and subset of knowledge. Embedded in communities' socio-economic, political, cultural and religious life, freely accessible and easily usable by all, this knowledge is from the community and for the community – which is what makes community knowledge so valuable.

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