Afterword
Directions in Indigenous Resilience Research

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The last decade or so of research in Canada, reflected in this special issue, has increased our understanding of the distinction between Indigenous resilience and the *research* into Indigenous resilience.

Measurement offers glimpses of resilience, mostly from the potentially distorted view of how resilient youth face specific adversity — adversity that is set by the funding opportunity: tobacco, substance abuse, suicide, or HIV infection. The driving role of funding has obvious problems; the priorities of funders may not be the priorities of communities and results can tell more about the funding opportunity than about resilience itself. Even so, this problem-focussed research has the very practical advantage of producing results geared to solutions.

A major lesson of this body of work is that we should allow ourselves the space (and the modesty) to recognize that Aboriginal resilience is greater than we have been able to measure under specific funding opportunities. Even with this limitation, our results shows a large degree of specificity — what strengthens youth resilience to one type of adversity in one setting might well not work in another. Five proposals emerge from the findings.

Proposal 1.
Tools for Researching Indigenous Spirituality

CIET started using standards-based measurement tools; adjusted through stakeholder buy-in, which sometimes resulted in a weak facsimile of the original. This has led to the need to redevelop the theoretical and prac-

tical basis for Aboriginal resilience research. Our *pre-cascada* partial order of individual resilience assets proposes that **p**erception of coherence, spi**r**ituality and **e**xperience will in some way precede **c**onscious knowledge, **a**ttitudes, **s**ubjective norms and the positive deviation from negative subjective norms, intention to **c**hange, sense of **a**gency (ability to implement change), **d**iscussion or socialization of the issue, and resilience-oriented **a**ction.

We still lack clarity on, for example, which elements of conscious knowledge are most informative for resilience. Many of the existing standards-based tools found, adapted, and introduced by CIET in Aboriginal communities, for example, those dealing with enculturation and cultural orientations, only tangentially deal with the fundamental issue in Aboriginal resilience — Indigenous spirituality. We are not convinced the existing tools are the best way to measure Indigenous spirituality.

We still have some way to go in methods development. Our first proposal is a rigorous review and extension of our current research tools. Exploratory factor analysis and structural equation modelling may play useful roles, but there is a lot of primary work to be done in developing tools for researching Indigenous spirituality.

Proposal 2. Advanced Cluster and Network Methods for Understanding Collective Dimensions

Like most other research groups, we still have to advance past the basics in methods and tools to measure the *collective* dimensions of resilience — beyond the not very satisfactory approaches to social capital.

All CIET resilience studies used clustered samples. In part, this was because of the practicality of working with First Nations reserves — it makes little sense to pick a random sample of individuals across all reserves, given the time and costs to reach each reserve. The more important issue, however, is that resilience is as much a collective attribute as it is an individual one. It occurs *between* people, holding them together.

On First Nations' reserves or in the Métis settlements, it is straightforward to implement a cluster survey or a clustered intervention. In urban areas, however, it is rare to find Aboriginal households next to each other, and most researchers with urban Aboriginal communities are forced into opportunity-based sampling — for example, youth who come to a drop-in

centre. This has massive problems of external validity (to whom we can extrapolate the results). The young people who drop in are not like those who do not drop in. There may be promise in modifying a "snowball" sampling design, asking each Aboriginal participant for, say, their three or five main Aboriginal contacts, and their three main non-Aboriginal contacts. This permits mapping of urban Aboriginal networks, important in the context of their non-Aboriginal support.

Key to making this a defensible scientific approach is to define how the index participant gets chosen. Picking one's friends will produce a very different sample to randomly selecting a series of lead participants. Whereas snowballs melt and disappear, these networks must be documented and the participants followed up over time. This offers a population base for Indigenous resilience research in an urban setting.

Resilience is a clustered phenomenon. In measuring the occurrence of resilience by cluster, we need to go beyond statistical "adjustments," to take into account the cluster nature of social capital. Even with the advances of multilevel modelling, not really accessible to community-level researchers, analysis methods to deal with Indigenous resilience leave much room for development.

Our second proposal is to build robust and accessible sampling and analysis methods able to deal with the clustered and collective nature of Aboriginal resilience.

Proposal 3. Go for the Peak: Community-led Randomized Controlled Trials

Resilience research in Aboriginal communities has reached a methods watershed. There is a recognized gradient in the "value" of evidence — its ability to channel resources to solve a given issue — from anecdote through case series, cross-sectional, case-control, longitudinal/cohort studies to randomized controlled trials (RCTs). If RCTs are what it takes to get resources allocated to priority issues, then Indigenous resilience researchers should be looking closely at undertaking RCTs.

It is time for a new approach to an old method. For those who view Aboriginal communities as victims, the RCT is rejected as distasteful, with ethical concerns about withholding an intervention and tricking people

with placebos. The imagery of RCTs in biomedical research comes largely from the pharmaceutical industry, where subjects are very literally experimented upon, to prove the effect of products that are then marketed.

There is another way. In partnership with 12 Aboriginal women's shelters across the country, CIET introduced the first Aboriginal-run randomized controlled trial (RCT). This project (Rebuilding from Resilience) will test the impact and cost implications of evidence-based community-led initiatives to reduce domestic violence. For the women's shelters taking a driving seat in their own research, randomization is just a fair way of working out whose turn it is next to benefit from the available resources. The comparison between the first wave and a second wave provides the "control" comparison.

There is a widespread, but mistaken, belief that disclosure is necessary for RCTs, that knowledge bearers of Indigenous spiritual knowledge must give this information to the researchers or public. This is understandably unpalatable for Indigenous advocates, who argue that Indigenous spirituality should not be dissected by Western scientists, that traditional medicine should not be handed over to those who practise the modern measurement sciences. In fact, the scientific value of an RCT is enhanced if the researchers do not know what exactly the intervention is. They need only know which individuals or communities were exposed to this intervention, and which not. And they need a clear way of measuring the outcomes — increased resilience or decreased effects of the erosion of resilience.

Our third proposal is to develop and implement intervention research about Indigenous resilience. We propose to do this using community-led approaches based on nondisclosure of traditional knowledge.

Proposal 4. Tools for Socialization of Evidence

As Aboriginal resilience research has evolved, so have demands on research design. Although CIET combines qualitative and quantitative methods quite effectively, the interest CIET receives from Aboriginal communities in Canada is for quantitative research. The main advantage of qualitative research for non-Aboriginal researchers — getting a clear picture of how things work and what is going on — is usually not the problem of Aboriginal communities. Communities tend to know what is going on, and they usually ask for technical support to *show* it. The communities that approach CIET say they

need evidence to put on the policy table, a concrete quantitative outcome to target or a shortlist of which of many factors to deal with first.

Of course there is still a big role for qualitative research. If anything, CIET is using qualitative methods like conceptual mapping even more these days, to incorporate traditional knowledge into research designs from their beginning. But we see this as, in some ways, internal to the process. It is not what the communities will bring to the table when they argue for more resources.

The community demand for evidence leads to our fourth proposal, to invest in tools for sharing and socialization of evidence. The studies reported in this special issue have used a variety of methods for sharing information: stakeholder meetings, presentations to Chief and Council, CBRs visiting door-to-door, videos, comics, pamphlets, radio coverage, and scientific publications.

Proposal 5. Build the Skills

Implicit in the first four proposals is the building of Aboriginal skills and confidence to lead Indigenous resilience research in Canada. Aboriginal researchers have to balance self-reflective cultural *investment* (see article by Barlow and colleagues, pp. 155–181) with modern research methods that by and large were not designed for communities and cultures like their own.

At the community level, training of CBRs, coordinators, and research interns plays a crucial role in generating the critical mass of interest and confidence. Aboriginal graduate training at masters and doctoral levels is important for research ownership, although the spread of Aboriginal scholars through dozens of graduate programs means that few of these are geared specifically to Aboriginal perspectives — and even fewer to Indigenous resilience. An emerging option, implemented by CIET in 2008, is dedicated cohorts of Indigenous researchers. The inaugural Inuit Winter Institute initiated training of 20 Inuit researchers and partial funding has been secured to keep this cohort active and training, through a combination of academic and practical research, over the next four years.

The other side of the skill building coin is non-Aboriginal researchers who have to overcome their cultural incapacity. With the emergence of increasingly trained and highly motivated Aboriginal researchers, the role of non-Aboriginal researchers is transforming to one of skill transfer rather

than direct research implementation. Even so, as methods and tools must be attuned to Indigenous paradigms and new methods developed, fuller appreciation, if not understanding, of what those paradigms involve could be central to advancing Indigenous resilience research.

Resilience Research Abroad: CIET's International Work on Resilience

Outside Canada, CIET's work on resilience has focused on two separate issues: gender-based violence and corruption.

In South Africa, a series of studies looked at the concept of male resilience in gender-based violence — why some men do not abuse women. This uncovered what we called a culture of sexual violence, in which people adapted to the adversity of widespread sexual violence in broadly negative ways. In 2002, our survey of sexual violence affecting school children (Andersson, 2004) provided the evidence base for a national knowledge translation exercise, now included in school curricular materials in four of the nine provinces. An impact assessment in 2007 evaluated the relevance of these materials in reduction of gender-based violence.

In 10 countries of southern Africa in 2007, CIET completed the second of two studies (baseline in 2002, Andersson, 2007) of the impact of mass media on HIV risk, funded by the European Union though an evaluation of the Soul City regional program. This included 30,000 households and nearly 100,000 school children. The findings about HIV-related attitudes and risk behaviours are currently feeding into national policy in these countries.

In Pakistan (1998–9), our social audit of abuse against women involved 20,000 households and documented the extent of different forms of abuse against women including male and mother-in-law views — the latter key protagonists of interpartner violence in that setting. Again, analysis focussed on those who did not take part in violence against women (Andersson, 2008). CIET used mapping of the findings to raise awareness and to help stakeholders define an action plan for the four provincial governments to reduce abuse against women.

Another resilience project in Mexico attempts to reduce maternal and newborn mortality in remote Indigenous communities without further marginalizing and destroying their cultures. Linked to this is the issue of physical abuse of pregnant women (21% reported a history of physical

abuse and physical abuse during pregnancy was associated with violent attitudes towards children) (Paredes, 2005).

A powerful lesson from our international experience is that resilience research is not just the flip side of risk research. Sometimes there are compelling reasons not to ask about the resilient ones, but to ask about those who are less fortunate. In AIDS prevention in southern Africa, for example, much of the problem resides with the "choice disabled" — the one out of every three who cannot implement their HIV prevention choices (Andersson, 2006). Transactional sex is widespread in southern Africa and characterized by power inequalities that disable prevention choices (Dunkle, 2007; Epstein, 2004). Children and women who are sexually abused cannot opt for abstinence or use of condoms, and their powerlessness renders meaningless any prevention recommendations about number of sexual partners. The lesson here is that we must go beyond work with those who are choice enabled, to work out how to prevent choice disability. We should be also working with those who are choice disabled, to understand how they can begin to exercise choice, or to avoid the worst consequences of not being able to do so.

Outside the area of gender-based violence, we found a resilience framework useful in our studies of system leakage — petty corruption in the health sector in South Africa, Bangladesh, the Baltic States, Nigeria, Afghanistan, and Pakistan (Cockcroft, 2007; 2008). Not everyone could be forced to make unofficial payments for supposedly free services. There are individual and community factors, several of them actionable, which increase the ability of people to access health services.

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