

## **Learning to count**

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On Tuesday (May 1, 2007), our Prime Minister noted that the Canadian Jewish Congress expressed concerns about Elizabeth May's comparison between Chamberlain's appeasement of the Nazis and Harper's lack of action on the environment. My initial reaction was to share the concern of the Congress, but I have reconsidered after further reflection. We need to learn to count the cost of destruction.

It does indeed feel wrong to compare one act of compliance with another when the human stakes are so high because it feels like comparing people's pain and suffering is a way of discounting it. There are cultures in which it is taboo even to count people (e.g. orthodox Judaism), and this taboo makes sense because counting people requires us to ignore the uniqueness of individuals. I am sensing, from the Jewish Congress' reaction to May's remarks, that in our culture it is taboo to measure destruction and devastation.

Measurement is about comparison. Without a benchmark, how can we measure the destruction of the environment that sustains us? And it is clear that the Holocaust is our benchmark for human depravity. It is an evil that has touched many of us deeply. May's attempt to compare environmental destruction to the capital H Holocaust demonstrates that her recognition of its sheer immorality.

Until we learn to measure destruction and count it in the calculations behind our economic projections, we cannot possibly take devastation seriously. The destruction of our environment will remain mere political rhetoric until it is counted in our increasingly mathematical, and increasingly economic model-based policy-making.

It is not easy to count destruction because such counting is inherently moralistic. Which is worse, gassing the masses in chambers or the slow gassing of our entire planet with ever-increasing toxic pollutants? Ouch. It

hurts to ask. How much worse is wilful extermination (done by Nazis or others), than extermination by negligence, apathy, ignorance, or whatever is behind our destruction of our environment? Is it twice as bad? Ten times? How does distance from pain factor into our decision-making: is genocide in Europe worse than in far-away Rwanda? It hurts to ask. It hurts to quantify.

It feels wrong to ask how much violence and destruction is permissible, but not asking seems to make it all permissible. If we don't ask these questions we relegate the questions to the sideline in modern policy-making. We need to learn to count and measure these things because the things we don't count, simply don't count. They are ignored. For example, I would argue that the genocide of our First Nations' peoples didn't count because at the time, Europeans didn't count these people as people. Just as I am baffled at this ignorance (this act of ignoring the value of these people), future generations will be baffled by our ignorance. They will criticize our failure to count the destruction of our drinking water, our air, and ultimately our people.

When Margerate Wente (e.g. Feb 13 Globe and Mail) and others criticize mathematics teaching reforms for not focusing on the basics, they ask the wrong questions. Yes, it is important to have mathematics skills. However, it is more important to do mathematics with understanding. Because of the increasing mathematization of our society, children and the rest of us need to know what we are doing when we are measuring. We are making comparisons, which are used for convincing people to take action. Children and the rest of us need to know what we are doing when we construct mathematical models because such modeling is increasingly the heart (or machine) behind policy-making. Understanding, modeling, and contextualization are the heart of mathematics teaching reform. It would be a mistake to reject this reform simply because it is different.

There are many resources available to readers and educators interested in connecting mathematics to social issues. Historian Theodore Porter's *Trust in Numbers* documents the increasing mathematization of democratic policy. Canadian writer John Gould addresses the issues subtly in his short story "Do the math" (in his collection *Kilter*). Brazilian mathematician Ubiratan D'Ambrosio addresses them directly in his many publications. Toronto teacher David Stocker's upcoming book *maththatmatters* will give clear

examples of how to contextualize mathematics learning in critical social issues. American writers Eric Gutstein's and Marilyn Frankenstein's similar works are already available. But most importantly, we need to be bold enough to ask questions ourselves.

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