

Finding your peers in a pandemic fog: Marco Polo as Post Normal science.
Feb 9, 2022; David Walter-Toews

1. Marco Polo is a children's game, based on locating others through call & response, while blindfolded. One person is declared, or self-declares, as Marco Polo or "it". This person remains blindfolded, or keeps their eyes shut. The "It" person calls out "Marco" and everyone else is required to respond with "Polo". The "it" person locates others through sound, either through the "Polo" response, or other sounds. If the person playing Marco Polo successfully tags another player, the tagged person then assumes the role of Marco Polo. The game is bounded in space, and also in terms of who is included, which is most often a group of friends.

2. This reflects the way in which the centre of gravity shifts in a pandemic, and also the way in which we can identify our extended peers. Although the basic principles of call and response remain, there are differences

1. One difference from the game is that multiple players can simultaneously be "it" depending on which questions we are seeking to answer: One Marco, based on previous work, whether in laboratories, or in related diseases, or work in other species, might ask if it is likely that we can develop a vaccine. Others might ask which vaccines offer the strongest and/or longest lasting immune response? Based on social, cultural and communications studies, what social constraints are likely to be most successful in curbing the disease spread? Each of these questions has a different "Marco" and a different group of Polo responders. The question then becomes how to identify and connect with extended peers; into which spaces does one shout Marco? Who are the relevant legitimate stakeholders? Where are the boundaries?

2. It is easier to find our extended peers if we have identified or befriended them before the game begins. There is a level of trust already gained,

and also the ability to differentiate legitimate voices from those who are likely to be pranksters, just gaming the system or attempting to sabotage legitimate conversations. As we have seen, this is especially true in a pandemic, where "facts [are] uncertain, values in dispute, stakes high and decisions urgent". I've found that there are colleagues whom I learned to trust before the pandemic, and who, during the pandemic, have taken different positions with regard to specific control measures, such as vaccines, lockdowns, masks and the like. If that trust had not been there before, I might have dismissed them as unreliable pranksters. Because I already trust them for other reasons, I have learned to be humble & listen; where is the response coming from? Where are they getting their evidence?

3. How do we deal with these extended peer groups?: Many of us with academic backgrounds have learned to work in an inter- or multi-disciplinary manner, including, at least in my case, philosophers, ecologists, social scientists, microbiologists, parasitologists, statisticians, and epidemiologists. In academic settings, this work is challenging, but possible and defensible using conventional arguments. Still, this is a major challenge. There are now more scholarly publications, each reflecting their own languages and dialects, than there are spoken languages, as we conventionally think of languages, on the planet.

4. A few of us have ventured into transdisciplinarity territory when attempting to address applied questions in particular communities. Here one is faced not only with multiple disciplines and all their normal rules, but also with multiple languages (English, Spanish, Nepalese, French, Bahasa, Chinese etc) and a variety of outcomes, some of which constrain others (potable water, food, public safety, gender equity). In settings such as community-based ecosystem approaches to health, we generally have identifiable boundaries and one or perhaps two, leaders identified as Marcos to whom we can respond and who will make some final decisions. Academically, I have found that this is more often challenged as

not being research, and hence not within the purview of the university, but rather development or community work, which are considered either as knowledge translation (which may or may not be justifiable academically) or community service or development, which is more difficult to defend as an academic activity.

5. In a pandemic, especially one of animal origin, our extended peer group includes multiple species. It is no longer enough to speak philosophese and viralese, but also to have a rudimentary understanding of communications among bats and bacteria. Now we are faced with what I would call feral boundaries and shifting baselines; the boundaries of the problems are at once local, regional, national, international and global; the baselines of normality are shifting through time. This is post normal science.

Many of us, trained in normal science and professional consultancy, have had some trepidation working with a scientific process that attempts to accommodate the chaotic cross-currents and strong opinions of these 'extended peer communities', who deploy 'extended facts' and take an active part in the solution of their problems.

The challenges of assuring quality control for post-normal Marcos are an order of magnitude greater than what we have faced within the disciplines of normal science. Furthermore, when we bring together people with different perspectives, we are faced with the challenge articulated by Nobel-prize winning biologist Joshua Lederberg, that "science is bereft of deontology: it cannot tell why one should be interested in science or anything else." (Lederberg, 1995).

PNS, then, pushes us to examine not only all the technical complexities of our work, but also what our assumptions and values are. Why are we doing this work? Among the many competing goals, what really matters?

In practice, what has this looked like for me? I subscribe to Nature Reports, The Smithsonian, New Scientist and the New Yorker, and keep an eye on a wide variety of news media from BBC and CBC to the NYT and The Guardian. I am a member of professional groups including Copeh-Canada, Ecohealth International, VSF-Veterinarians without Borders (Canada & Internationally), The Writers Union of Canada, PEN. I maintain a precarious love-hate presence on various social media: LinkedIn, Twitter, Instagram, Facebook (various subgroups). This has been a struggle, and I am well aware of the dangers of various social media & I am careful to vet the specific contacts. At best, my contacts in these media challenge me and/or send me scientific and news reports that I have missed; at worst, I merely become angry or annoyed.

I would suggest that what is needed are clearing houses, or nodes, or centres, which can subscribe to, and monitor varieties of social media. This would serve at least as a sort of double check for the many Marcos on the veracity of various claims of evidence. and where the legitimate Polo networks are, and perhaps who should be tagged as “it.”

This has been difficult and humbling and frequently annoying for me, generating conflicts, most of them, for me at least, internal. We should welcome these conflicts as opportunities to learn from each other, and from the human communities we serve. Nevertheless, if we are interested in grappling with the big questions of the day such as pandemics One Health this is the landscape into which we must venture.

Marco!