In Isobel Murray's novel, *Memoirs of a Spacewoman* (1962), the narrator, Mary, guides us through a series of expeditions in which she has to establish contact with and invoke understanding of other life forms. These range from organisms on different planets to the -sometimes equally foreign - parasites in the lab on her world of Terra. Communication, in Murray's novel, is a highly valued skill. Mary's ultimate goal is to "think" herself "behind the mouth" (p.27) - to totally displace herself in - the experience of other lifeforms. This process most often starts with imagining her way into the bodies of her research objects, leading her to an experiential understanding of their world, which in turn gives her insight into their systems of reasoning and language. Murray's book is dedicated to Anne McLaren.

The event organised at the British Library on 20 July, 'Anne McLaren: Science, Ethics and the Archive', reminded me of how Anne was as consciously engaged in communication as Mary is in Murray's distant future. When hearing about McLaren's roles in policy and science in the contributions of Baroness Mary Warnock, Prof. Elizabeth Robertson (Developmental Biology, Oxford), Prof. Sarah Franklin and Chris Hassan (Wellcome Trust), these histories seemed to merge into a single account of a career dedicated to thinking herself 'behind the mouth'.

Warnock's account of her collaboration with McLaren showed how McLaren's understanding of the embryo in the context of the Warnock Inquiry emerged from a careful process of thinking through its development from 'behind the mouth', step by step, through its physiological development outwards, and ending with its relationship to other individuals and society. Through a careful account of the biological process of embryonic development, McLaren was able to identify moments in development that might be of social significance and thus helped the Warnock Committee in its defence of a 14-day limit on human embryo research. In this way, McLaren saw the social world of the embryo gradually take shape through a precise scientific description. As Mary puts it, "Thinking oneself into the shape of one's contact was elementary when considering communication techniques" (ibid., p. 27).

This consideration of the social in her biology did not make McLaren's account of development less scientific. In fact, the careful description of physiological development that was required to find...
potential socially relevant landmarks for policy made McLaren more scientifically rigorous. Development, she explained, resulted from the interaction of genes and environment, and this proved to be more accurate than descriptions of development as the unfolding of a fixed genetic code. Thinking from the body-out also didn't lead to a reductive or essentialising view of identity based only on the biology of the embryo, but demanded that she made a clear and explicit case for the biological markers to which she would decide to attribute social significance; the social significance did not emerge from the biological facts themselves. McLaren’s account of development reflects her view of her research object as a potential person in society. This relied on an understanding that biology is social, that biological landmarks are arbitrary and that the scientist is always making a choice when highlighting one specific biological landmark. In the process of even the most open-ended, basic research, the scientist responds, judges, relates – communicates with the organism and hereby constitutes their subjectivity. Getting ‘behind the mouth’ of the organism, she understands, is about negotiating identities. How different from the lessons Mary is taught in Murray’s book. The cardinal rule for the explorer, she tells us, is that she must not interfere with the societies she encounters,

Far more of our today’s problems are connected with interference. Before the codifying of rules for space explorers, there were constant examples of deliberate interference with other life, almost always ending disastrously and making communication less easy for several generations (pp. 6-7).

Mary repeatedly returns to this question of ‘interference’. Where do you draw the line as a researcher between observing and interfering with the organisms or cultures you study? Is ‘interference’ ever justified?

The ban on interference becomes increasingly difficult for Mary to observe. Mary finds herself relating to her subjects, either as a result of a mutual understanding attained through effective communication, a connectedness resulting from physical proximity, a feeling of caring and responsibility as she watches organisms develop over months, or a feeling of outrage at (what she perceives as) the moral depravity of other cultures. In each case, Mary discovers that communication can never be perfect as she understands it. She cannot fully displace herself in her research object. Thinking herself behind the mouth is not the same as actually being behind the mouth and so observing is always interfering. The research objects she observes through transparent walls on foreign planets are as connected to her as the ones grafted onto her body in the lab. It is from this perspective, where the relationship between scientist and research object is as social as that between scientist and society, that Mary is forced to rethink her dogmatic commitment to non-interference, and where her perspective begins to resemble McLaren’s on the Warnock Committee.

Another anecdote from Warnock shows how McLaren extended this scientific ethic of interference to her work on ethics committees. Warnock spoke interestingly about a particular conundrum she faced when writing the Warnock Report. She just couldn’t figure out how to incorporate the concerns expressed by the public about potential applications of research such as human cloning, human–animal chimeras and trans-species fertilization into a report on the current state of research. “Anne”, she recounted, “understood the problem perfectly”. She continued, “Anne had an extraordinary gift for thinking herself into someone’s head, understanding the problem from their perspective, and then figuring out a solution with them”. The solution was to collate these ‘speculative’ issues into a chapter on future developments in research. Anne, it seems, was able to think herself into the embryos and the people she worked with, and the public she worked for while never losing her awareness of her specific voice as a scientist. Together, Warnock says, they were able to produce something that “wasn’t completely science fiction”. Yet the more I compare McLaren’s perspective to that in Murray, the more it seems that McLaren is at least on a par with Mary’s communicative prowess. In Murray’s vision of the future, science prioritises communication: “Knowledge of other sciences can be borrowed or shared, but communication is essential” (7). McLaren’s role in the Warnock Inquiry, it seems, is an example of this approach to science ahead of its time. McLaren the spacewoman left us with a vision of a different kind of (social) science.
In view of McLaren’s career on the borders between science and policy, the conference “Anne McLaren and Translation” to be held at the Wellcome Collection on 12 December 2017, will take a timely look at what we mean by ‘translational science’. On the one hand, this term has been used since the mid-1990s to describe the process of scientific innovation leading to successful applications. The goal of this conference, however, is to explore the convergence of the new
emphasis in science policy on dialogue and interdisciplinarity with translation, with a view to proposing new models of the translational process. New understandings of translation might lead to more dynamic and interactive accounts of generating tangible social benefits from basic knowledge production. The conference is co-organised by the Anne McLaren Memorial Trust Fund and the Wellcome Institute.