Implementer Portrait: Carl May

Carl May is a Professor of Medical Sociology at the London School of Hygiene and Tropical Medicine, UK. His remarkable work ranges from fundamental social science research on the dynamic of human agency to very applied – mostly qualitative - evaluation studies in health services research.

Over the past two decades Carl May and his team developed the Normalisation Process Theory, which characterises and explains the mechanisms that motivate and shape implementation processes. His latest publication on the topic – a systematic review on the use of the Normalisation Process Theory – gives a great insight in his contribution to the field of Implementation Science.

What is one of your favourite articles on implementation?

It's really hard to pick a single paper out of the enormous number that have been published. I came to Implementation research by way of science and technology studies (STS). This is a field in which there is a huge amount of outstanding scholarship. The book that influenced me at the beginning of my programme of work at the end of the 1990s was Donald Mackenzie's *'Inventing Accuracy'* (1). This isn't a book about implementation at all: actually, it's about the history of ballistic missile guidance systems, but from my perspective it provided a framework to think about the complex relationships between new technologies and the ways that different groups interpret data and make it into evidence. I still work in and read widely around STS—it deals with complex processes of adoption and embedding of new practices and technologies in a very different way to implementation research. As I was getting into implementation research as a field, I was very struck by the way that many people involved in it dismissed Trisha Greenhalgh's major project on the diffusion of service innovations (2) as unscientific because it developed and used qualitative methods for review. It was actually a hugely important piece of work, and it has been more influential in policy circles than most work in implementation science. I found it inspirational to read because its point of departure was that diffusion and implementation processes were complex phenomena and that policy-makers needed to take this into consideration. More recently, I have become interested in individual behaviour change alongside my work on new technology adoption and implementation. I am full of admiration for the way that Susan Michie and her colleagues have reshaped thinking about this area of research, and they ways that they have synthesized many theories and brought them together in the Theoretical Domains Framework.

(1) MacKenzie, Donald A. *Inventing accuracy: A historical sociology of nuclear missile guidance*. MIT press, 1993.

(2) Greenhalgh, Trisha, et al. "Diffusion of innovations in service organizations: systematic review and recommendations." *The Milbank Quarterly* 82.4 (2004): 581-629.

What are you currently working on that relates to implementation?

I am just coming to the end of a major project that has looked at 'real world' implementation processes in the NHS in England, and has used the development and implementation of shared decision-making tools for end-of-life-care as a vehicle for this. This project has involved some significant development and consolidation of normalisation process theory but has also led to the development of a parallel programme of work that has developed and is exploring the ways in which implementing new ways of organising and delivering healthcare shift work away from the clinical and into the home. The result of this work—Burden of Treatment Theory—has gained some traction, and I have four PhD students exploring various aspects of the ways that implementation processes in healthcare have complex consequences for patients and caregivers.

Tracy Finch, Tim Rapley and I are continuing to work on normalisation process theory through the EU funded www.implementall.eu study, which is looking at multiple telemedicine implementation processes in several European Countries. In the UK, I will be leading a major programme of innovation and implementation research as part of a collaborative between the London School of Hygiene and Tropical Medicine, University College London, Queen Mary University of London and City University. Once again, this offers an opportunity to develop studies of 'real world' implementation processes and problems.

If you were to have lunch with another 'implementer', whom would you pick?

I don't see enough of my friend and collaborator, Professor Tracy Finch. But by coincidence she is actually coming to lunch at our house next week. I will be cooking. We will have celeriac and pear soup followed by Salad Nicoise with seared Tuna. It will be lunch and we have a long afternoon of meetings after lunch, otherwise I would probably have opened a bottle of nicely chilled Gavi di Gavi. Few things move theory development along so well as nice food and a good bottle of wine.

I still haven't managed to actually meet Jeffrey Braithwaite. I would definitely want to have lunch with him.

If you had the resources for it, what within implementation science or practice would you want to work with next?

I do have some resources, and over the next three years I am going to work on understanding the dynamics of variations in real-world implementation processes, over time and between settings. Most implementation research focuses on single projects, often through trials. Or, we amalgamate and homogenise the results of many studies into systematic reviews of different kinds. I think that this skews our understanding of implementation processes, and we do too little comparative research. This means that we lose sight of differences.

We need to understand variations in implementation processes between settings. But implementation research also focuses on meso- and micro-level processes. We need a better understanding of the ways that macro-level mechanisms shape implementation processes, and I am working on a project with Professor Davina Allen of Cardiff University to develop a model of these.