Whose theory is it anyway?

Jennie Popay

Investigations into the role of theory in enhancing our knowledge of the factors that shape levels of and patterns in population health should not be restricted to the domain of researchers.

All journal editors welcome debates but it is perhaps surprising that debate should emerge from the planned publication of a glossary rather than a research paper or opinion piece. But then again this is a glossary (and guide) to "postpositivist theory building for population health". There's a lot in here to generate debate. Take the notion of "postpositivism" for example. Arguably it is words like this that have got social science a bad name but whole books have been written about postpositivism and its relation, often tense, with positivism. Then there is that term "population health". As Dunn notes this is a vague term and therefore leaves lots of room for differing interpretations about what it is and what its primary purpose should be. Finally, and for some most fascinating there is the term "theory". As the glossary and other commentators highlight there are many differing understandings of the role of theory in relation to population health. But implicit in the glossary and comments is the idea that the relevance of theory to population health is confined to the domain of researchers—and quantitative ones at that! So my contribution to this debate is to suggest that the role of theory in enhancing our knowledge of the factors that shape levels of and patterns in population health is much wider than this.

Firstly, there is the important question of the role of theory in qualitative research. I know that some *JECH* readers might be asking themselves what qualitative research has got to do with population health but that is a debate for another day. For now, let's accept qualitative research is part of the population health research "tool kit". If it is then much of what is written in this glossary has little relevance to the role of theory in qualitative research other than to emphasise the need for it. Theory is the core element of qualitative research, it derives from it (grounded theory), is tested in it, and most importantly is the mechanism through which qualitative research can claim more general relevance. Take the case of Hilary Graham's work on smoking among poor women.¹

The link that Graham makes between the women's accounts of when and why they smoke with theories about the nature of women's caring role allowed her to generalise from a small sample to the larger group of (white) women bringing up children in the face of severe material disadvantage. Similarly, in his study of the experience of patients on one ward in a mental hospital Goffman built theory about the nature and impact of "total institutions" on behaviour that transformed mental health policy and practice for ever.²

My second point concerns the role of lay theories in population health. I would raise two somewhat different issues here: the role of lay theories for the people involved and the challenge lay theories pose for academic theories.

There is at least one important difference between theories in research and those developed in ordinary life. In quantitative population health research theories are typically multifactorial involving the addition of more and more variables into putative models. In contrast the theories we all develop as lay people as we seek to make sense of our experience of health and illness are interpretations and elaborations of the meaning of causal factors in the context of everyday life. In Max Weber's terms they provide understanding in terms of both cause and meanings. Qualitative research exploring lay theories about the causes of health inequalities, for example, has highlighted a number of "purposes" served by such theories. As Mildred Blaxter has argued for example, they are a means for people to re-assert their moral worth: "To acknowledge inequality would be to admit an inferior moral status for oneself and one's peers: hence perhaps the emphasis on 'not giving in' to illness.³ This can be seen to be a claim to moral equality even in the face of clear economic inequality". Lay theories about the causes of health inequalities have also been argued to be a means for people to re-assert individual control through an emphasis on indirect rather than direct mechanisms particularly an emphasis on stress as a key factor mediating the relation

between material circumstances and ill health.⁴ From this perspective a more sophisticated understanding of lay theories about the causes of health and illness has much to offer public health.

Lay theories also challenge formal codified theories in population health research although these challenges remains largely implicit, emerging perhaps only in the high rates of non-compliance to be found in patients' responses to medical directives⁵ or, more dramatically and less frequently, where individual patients take grievances to court. Increasingly, however, some of these "theories" are developing into organised protest. Remember the case of the women of the Bristol Survey Support Group who engaged in a battle against the medical researchers whose subjects they had been in a clinical trial.⁶ Not only did they take exception to the results of the trial but they challenged the theory underpinning this work. And more salient from a population health perspective is the increasing visibility of what Brown has called popular epidemiology.⁷ In the UK one of the most important examples of this is the case of people of Camelford in Cornwall who persisted in their challenge to the expert opinion that the 20 tonnes of aluminum sulphate accidentally tipped into their water supply in July 1988 had had no lasting impact on their health.⁸ The nature of the challenge posed by lay theories about the causes of health problems is twofold. Firstly, they represent a challenge to the "objectivity" of expert "theories". They both contest the impartiality of expert knowledge compared with other forms of knowledge, and raise questions about the extent to which the process of objectification—upon which the truth-claims of scientific knowledge depend—permits a proper understanding of health problems. Secondly, they challenge the authority of professionals to determine the way in which problems are defined in the policy arena. Lay theories in the realm of population health therefore represent both an epistemological challenge and a political challenge to the institutional power of expert theories and it is a challenge that we in population health research have so far failed to face up to.^{9 10}

J Epidemiol Community Health 2006;**60**:571–572.

doi: 10.1136/jech.2005.038927

Correspondence to: Professor J Popay, Lancaster University, Alexandra Square, Lancaster LA1 4YT, UK; j.popay@lancaster.ac.uk

REFERENCES

- 1 Graham H. Women's smoking and family health. *Soc Sci Med* 1987;**25**:47–56.

- 2 Goffman E. *Asylums: essays on the social situation of mental patients and other inmates*. New York: Anchor, 1961.
- 3 Blaxter M. Whose fault is it? People's own conceptions of the reasons for health inequalities. *Soc Sci Med* 1997;**44**:747–56.
- 4 Popay J, Bennett S, Thomas C, et al. Beyond 'beer, fags, egg and chips'? : Exploring lay understandings of social inequalities in health. *Sociology of Health and Illness* 2003;**25**:1–23.
- 5 Conrad P. The meaning of medications: another look at compliance. *Soc Sci Med* 1985;**20**:29–37.
- 6 Bagenal FS, Easton DF, Harris E, et al. Survival of patients with breast cancer attending Bristol Cancer Help Centre. *Lancet* 1990;**336**:606–10.
- 7 Brown P. Popular epidemiology: community response to toxic-waste induced disease in Woburn, Massachusetts. *Science, Technology, and Human Values* 1987;**12**:78–85.
- 8 Williams G, Popay J. Popular epidemiology. In: Gabe J, Kelleher D, Williams G, eds. *Challenging medicine*. London: Routledge, 1994:118–39.
- 9 Popay J, Williams GH. Public health research and lay knowledge. *Soc Sci Med* 1996;**42**:759–68.
- 10 Popay J, Williams G, Thomas C, et al. Theorising inequalities in health: the place of lay knowledge. *Sociology of Health and Illness* 1998;**20**:619–44.

Postpositivist theory

Speaking theoretically about population health

James R Dunn

The theoretical project of population health is still in early infancy and is still quite marginal to the main emphasis of most publications in the field.

In the past few years, several population health and social epidemiology scholars have argued the need for better theory.^{1–3} Given the comparatively underdeveloped social theoretical foundation for population health research, any progress in this area is reason for celebration. The glossary by Carpiano and Daley in this issue of *JECH*⁴ will help to reinforce and expand the awareness of the importance of theory in our work. Yet I would argue the theoretical project of population health is still in very early infancy and sadly, is still quite marginal to the main emphases of most publications in the field. Carpiano and Daley suggest that the need for theory is at least partly due to more interdisciplinary work, while I believe the main issue is between competing notions of what constitutes “explanation” and “theory” in science, which can vary as much within disciplines as it can between them. In the following few words, I use Carpiano and Daley's glossary as a springboard for some additional thoughts about the theoretical foundations of population health research.

Given that “population health” is a vague term, it is worth briefly outlining what I consider its primary explanatory challenges to be, because it is to these challenges that a more theoretically informed population health research programme will have to rise. Population health stated plainly is a broad and complex field that must explain the systematic, differential distribution of health status by socioeconomic position. This enduring tendency,

we know, holds across a wide variety of health conditions and disease states (from accidents and injuries to mental illness to coronary heart disease) and for a variety of conceptions of socioeconomic position (for example, social class, minority status, educational attainment), to different degrees at different stages of the life course and differently for males and females. The explanatory project of population health, I believe, is to be able to combine both empirical and theoretical research that links: (a) “cell to society” (actually, subcellular as well) through some “biopsychosocial translation”,⁵ (b) individuals to the experience of a quasi-nested, scaled, and stratified social world (neurons to neighbourhoods to nation states?⁶), and (c) “cradle to grave” or can explain exposures and outcomes that are separated by differing, but often very long temporal scales (for example, from early childhood to late adulthood), through different possible modes, including latent, cumulative, and pathways effects.⁷ All of this, of course must account for a complex background of both slowly evolving and punctuated historical changes and an increasingly complex set of geopolitical relations across the globe.

Clearly, such an ambitious explanatory project cannot be achieved by simply adapting the methodology and philosophy of the natural sciences. Even if we had a dream dataset, would it be able to “explain” population health? I would argue no, but that depends on what we mean by “explain”. Only within a shared (and probably

pluralistic) understanding of what counts as explanation in science can we prescribe what “theory” is and how it should be used. I would urge the fields of population health and epidemiology to embrace broader notions of theory and explanation to supplement the traditional one and the ones Carpiano and Daley prescribe.

Drawing from critical realist philosophy, Sayer⁸ suggests that three notions of theory (all legitimate but each partial) are commonly used in the social sciences: (a) theory as an ordering framework or a kind of “filing cabinet” for organising different phenomena and variables; (b) theory as a hypothesis or a functional explanation of why variable A is associated with variable B; (c) theory as an examined conceptualisation of a phenomenon or thing in which to theorise is to prescribe a particular way of conceptualising something. This latter notion of theory is one that scholars seeking scientific objectivity often shy away from for its prescriptive aspects. The irony, however, is that a failure to explicitly state one's conceptualisation is tantamount to advocating common sense notions of social phenomena and population health. This is highly problematic, because, as Sayer suggests,

“[A] social science which builds uncritically on common sense, and reproduces these errors, may, at a superficial level, appear to produce correct results. On the other hand, from the standpoint of common sense, which takes its knowledge to be self-evident and beyond challenge, the knowledge produced by critical theories such as marxism will appear to be false because it conflicts with what it judges to be the case ('an affront to common sense!'). Yet such theories aim not just to present an alternative or to reduce the illusions inherent in social understanding, but to represent and explain what actually exists as authentically as possible”(p 43).⁸

Using the same two examples as Carpiano and Daley, the health effects of local food access and the Evans and