CRITICAL PUBLIC HEALTH
2019, VOL. 29, NO. 5, 522–533
https://doi.org/10.1080/09581596.2018.1474174

Taylor & Francis
Taylor & Francis Group

RESEARCH PAPER

Critical social science *with* public health: Agonism, critique and engagement

Eric Mykhalovskiy[a], Katherine L. Frohlich[b], Blake Poland[c], Erica Di Ruggiero[d], Melanie J. Rock[e] and Leigha Comer[a]

[a]Department of Sociology, York University, Toronto, Canada; [b]École de Santé Publique de L'Université de Montréal & IRSPUM, Montréal, Canada; [c]Dalla Lana School of Public Health, University of Toronto, Ontario, Canada; [d]Social and Behavioural Health Sciences Division, Dalla Lana School of Public Health, University of Toronto, Ontario, Canada; [e]Department of Community Health Sciences, Cumming School of Medicine, University of Calgary, Calgary, Canada

ABSTRACT

This article is about a mode of scholarly practice we call critical social science *with* public health. The article responds to our dissatisfaction with established approaches to social science engagement with public health that have developed out of Straus' early distinction between sociology *in* and *of* medicine. By critical social science *with* public health we mean a set of research practices that orients to epistemological and political differences between social science and public health as productive opportunities. We draw on Mouffe's notion of agonism to ground our argument conceptually and on our collaborative research *with* tobacco control to substantively illustrate our case. As we imagine it, critical social science *with* public health unsettles knowledge relations that position social science either as a conceptual resource for public health or as a source of negative critique of public health activities. Critical social science *with* public health engages directly with public health actors, while remaining committed to the specificity of social science theory and methodology. It aims to transform public health, often by seeking to lessen the harmful effects of public health practice, while, at the same time, contributing to critical social science scholarship.

ARTICLE HISTORY
Received 17 November 2017
Accepted 21 April 2018

KEYWORDS
Critique; public health; social theory

Introduction

In North America, the post-Second World War era is often cited as ushering in a period of growing collaboration between social science and public health (Badgley, 1963; Straus, 1957; Suchman, 1963). Since that time, social scientists have engaged various theoretical and methodological perspectives in research on: the behavioural dimensions of health risks; the political, social and economic determinants of health, health inequalities and disease; and the impact of public health policy and program interventions, among other topics. While scholars have described the contributions made by this body of work (Schneiderman, 2001; Shinn et al., 2003; Susser, 1987), the forms of engagement with public health and the relationships between social science and public health upon which social science research is built have received far less attention (although see, for example, Trostle, 2005; Linder, 2004).

CONTACT Eric Mykhalovskiy ericm@yorku.ca

The contemporary public health movement is challenged by growing health inequities and social marginalization at precisely the time at which it is subject to growing political and resource pressures. In that context, how social scientists relate to public health, the value and nature of our critical dispositions and the forms of engagement we develop with public health are particularly salient. This article grows out of our dissatisfaction with the established forms of scholarly engagement with public health and, in particular, the modes of practice often referred to as social science *in* public health and its obverse, social science *of* public health. We argue that an alternative is called for, which we name critical social science *with* public health. We explore critical social science *with* public health as an analytic project. We identify its key dimensions, describe some of what is involved at the level of research practice and encourage dialogue about its preconditions, practices and possibilities.

We begin with Straus' (1957) oft-cited distinction between a sociology *in* and *of* medicine. We orient to Straus' distinction as a heuristic device for considering how social scientists negotiate different knowledge relations and expectations in research on public health. We outline the principal institutional relations that support social science *in* and *of* public health and describe the potential and limitations of their modes of engagement. We suggest some of the perils associated with social science *in* public health by drawing on the example of the call to incorporate the concept of context into population health intervention research (PHIR). Using the example of Foucauldian research on public health and self-governance, we explore some of the limitations of social science *of* public health.

The remainder of the article delimits the complex, necessarily messy, but fertile space that lies in-between. We draw on Chantal Mouffe's notion of agonism (Mouffe, 2000), to explore the central role played by conflict and difference in a mature practice of critical social science *with* public health. We argue that engaging with public health as critical social scientists is less a matter of emphasizing what is held in common, than of productively acknowledging and negotiating sources of difference. To illustrate some of what can be involved, we turn to our collaborative research on tobacco control in the Canadian context. We describe the key political and epistemological differences that lie at the heart of our agonistic relationship with tobacco control and describe our efforts to work through those differences. By highlighting how tobacco control contributes to social inequalities in smoking, our research unsettles its established problematization of smoking and encourages reflexivity among tobacco control practitioners about the potential downsides of their activities.

Our vision of critical social science *with* public health unsettles knowledge relations that position social science as a conceptual resource for established public health reasoning and practice. At the same time, it resists forms of negative critique that avoid, or treat as ancillary, scholarly efforts to improve people's health and lives. In our view, critical social science *with* public health is not reducible to particular traditions of social inquiry such as Marxism, feminism, post-colonialism or post-structuralism. Rather, by critical social science *with* public health, we mean a set of practices that orient to epistemological and political differences between social science and public health as productive opportunities. Working through these differences challenges taken-for-granted forms of public health reasoning and practice and commits to developing alternatives. In practice, critical social science *with* public health means aiming to transform public health, often by seeking to lessen the harmful effects of public health practice, while also contributing to critical social science scholarship.

The in/of trope

In 'The nature and status of medical sociology', Robert Straus (1957) introduced the distinction between a sociology *in* and *of* medicine. Straus had been commissioned by the American Sociological Society to survey and compile a directory of members of 'the new sub-specialty of medical sociology' (Straus, 1957, p. 200). In his findings, Straus distinguished between applied sociological research (*in* medicine) and 'pure' sociological inquiry (*of* medicine). Straus' in/of dichotomy spoke primarily to spatial, relational and topical dimensions of research. By his account, sociologists *in* medicine generally worked in health sciences settings in collaboration with health professionals and researched topics of interest to them. By contrast, sociologists *of* medicine treated medicine as an object of inquiry by studying 'medicine as

an institution or behaviour system' (p. 203). Typically, they were institutionally based outside of medical research and teaching environments.

While noting exceptions, Straus emphasized that sociology *in* and *of* medicine were 'incompatible with each other' (p. 203) and highlighted the communicative challenges faced by sociologists wishing to address medical audiences. He argued that those who held too closely to 'pure' sociology risked being misunderstood or ignored, while those who began 'to talk like a physician' (p. 204) missed bringing sociology's unique contributions to their research. Like any binary, Straus' in/of dichotomy simplifies the variation and fluidity of social practice. Nevertheless, we find the trope useful for highlighting different orientations to social science research about public health and different ways social scientists approach matters of engagement with public health.

Social science in public health

Straus' in/of dichotomy has proven a remarkably popular device for thinking about how social scientists orient to health phenomena. Straus used the term primarily to write about the sociological enterprise in biomedical contexts. It has subsequently been used to describe sociologists' relationships to bioethics (De Vries, 2004) and nursing (Earle, 2016), anthropologists' relationships to health care (Olesen, 1974) and the relationship of scholarly inquiry to public health (Labisch, 1998; Spitler, 2001) – our immediate concern.

Over 50 years ago, Robin Badgley (1963) described how research using the sociological concepts of culture and social structure can help resolve public health problems. Since that time, other scholars have explored the relationship between social science and public health in ways that recapitulate the terms of Straus' sociology *in* medicine. They generally emphasize how social science research can help meet public health objectives to improve health. Research that uses socio-psychological models of behaviour to contribute to individual-level health promotion has been a particular focus (Coreil, 2008; Schneiderman, 2001; Susser, 1987).

Of course, forms of research and orientation to public health encouraged by social science *in* public health are supported by particular institutional arrangements. Like Straus, our experience is that social scientists are pulled in the direction of a social science *in* public health when they work within the institutional and discursive spaces of public health. It is also the case that social science *in* public health is presupposed by funding relations that support health research. For example, social scientists applying to the Canadian Institutes of Health Research (CIHR) must contend with a review process in which fellow social scientists often play a negligible role and with an expectation that grant applications engage large multidisciplinary teams and closely align with applied public health policy and program directions (Albert & Laberge, 2017).

Social scientists in public health encounter numerous institutional pressures and tradeoffs that can limit the extent of their engagement with social science theory and critique. At the same time, social science *in* public health offers welcome opportunities to conduct research that can contribute to applied concerns in public health. Our concern is with the dangers posed by that opportunity. Straus himself cautioned that sociology *in* medicine can erode the unique analytic voice of sociology. Spitler (2001, p. 260) argued that sociologists 'immersed in public health research' can 'lose their distinction as sociologists' by becoming enamoured of individually focused approaches to public health problems. Social science *in* public health can exacerbate the epistemic vulnerability of social science. At its worst, it takes the form of a service relation in which social science theories, concepts and methods are used to support public health aims, while the scholarly autonomy of the social sciences is subordinated to applied public health reasoning and objectives.

To illustrate, we focus on the call from within PHIR for scholarship that explicitly engages with the concept of context. PHIR is an interdisciplinary field of research that augments research on public health problems by studying interventions that act on the social determinants and distribution of health risks at the population level (Hawe, Di Ruggiero, & Cohen, 2012; Hawe & Potvin, 2009). Informed by concerns that PHIR fails to fully recognize how intervention formulation, operation and effects are mediated by

context, contributors to the field have called for greater collaboration with social scientists and deeper engagement with social science approaches to context (Hawe, Shiell, & Riley, 2004). Recently, Canadian and UK funders have released guidance for taking account of context in PHIR (Craig, Di Ruggiero, Frohlich, Mykhalovskiy & White et al., 2018).

In social science research, attention to context guards against localism and the fiction of the 'individual' by encouraging ways of thinking that situate units of analysis in relationship with one another. In some cases, context grounds analyses that explore how a set of experiences is linked with broad social, political, cultural and economic relations. In other cases, such as the field of relational sociology (Emirbayer, 1997), context destabilizes any sense of a pre-given social actor or practice and invites a radically networked conception of the social as always dynamic and in process.

Recent reviews indicate that efforts to integrate context into PHIR have resulted in treatment of the concept as little more than features of a local setting that investigators must 'control for' conceptually and statistically (Shoveller et al., 2016). Rarely do such studies conceptualize interventions and context as co-constitutive or explore dimensions of context fundamental to social science formulations of the term including political and economic forms of social organization, history and culture (Petticrew & Moore, 2014).

PHIR's call for explicit attention to context implies, however inadvertently, that the social sciences might serve a kind of conceptual handmaiden – a reservoir of concepts that might fix a public health research problem. Such a service relation undermines PHIR as a project within public health, even as there are social scientists who have contributed to this endeavour. PHIR's instrumentalism and roots in epidemiological ways of thinking have not been displaced by the emerging concern with context. In fact, what has resulted is an orientation to context that leaves intact conventional approaches to researching population health and related interventions, while supporting a notion of context that is largely stripped of its social science character.

Social science of public health

Straus (1957, p. 203) described sociology *of* medicine as a matter of 'studying such factors as the organization, structure, role, relationships, value systems, rituals, and functions of medicine as a system of behaviour'. Subsequent discussions of social science *of* public health have underscored the treatment of public health itself as an object of critical inquiry. For example, Levinson (1998) envisioned the sociology *of* public health as the study of the forces behind public health's tendency to overlook the fundamental structural causes of the health of populations in favour of an emphasis on individual risk behaviours.

Subsequent iterations of social science *of* public health have relied on knowledge relations that are conceptually coordinated by critique (Bell & Green, 2016; Green & Labonte, 2008). Critique of public health presupposes conventions of scholarship that recommend public health activity – its practices, forms of reasoning, politics, concerns, modes of organization and so on – as a site for working through disciplinary issues, debates, and theories. While it may be animated by a goal to create a better world, social science *of* public health is decisively not about lending a social science hand to resolving problems formulated from within the established terms of public health reasoning. Created by and for social scientists, it is institutionally and discursively supported by post-graduate social science training, journals, conferences, and other vehicles of social science inquiry, including funding relations that emphasize conceptual novelty over practical utility.

Since Straus delineated a sociology *of* medicine and Levinson used the term to define a sociology *of* public health, social scientists have enlisted a range of theoretical and conceptual resources to explore a host of public health issues. For example, field, practice, capital, habitus and other concepts from Bourdieu's oeuvre have been used in studies of the social determinants of health, health inequalities and behavioural health promotion (Abel & Frohlich, 2012; Haines, Poland, & Johnson, 2009; Nettleton & Green, 2014). Critical realism has been drawn upon to explore population-level health inequalities (Coburn, 2004; Scambler, 2007). Science and Technology Studies has been used to study pandemics (French & Mykhalovskiy, 2013), tobacco control policy (Young, Borland, & Coghill, 2010) and HIV

prevention (Rosengarten & Michael, 2009), and post-humanist perspectives have been taken up in work on 'One Health' issues in public health (Green, 2012; Lapinski, Funk, & Moccia, 2015; Rock, 2017).

In recent years, Foucauldian critiques of public health have become one of the most prominent varieties of social science *of* public health. This body of work traces back to Armstrong's (1983, 1995) analysis of shifts away from a clinical gaze and the interior spaces of the human body to a mode of public health monitoring of the social spaces that form across bodies. Armstrong's concern with the rise of public health risk surveillance was further developed by other sociologists (Lupton, 1995; Petersen & Bunton, 1997 and Petersen & Lupton, 1996) whose work was particularly significant for articulating a Foucauldian approach to the critique of public health. This early work applied the Foucauldian notion of governmentality (Foucault, 1991), particularly as developed by the British scholars Rose and Miller (Miller & Rose, 1990), to public health in terms that emphasized the conduct of conduct, the operation of expert knowledge at the individual and population level, and the creation of self-governing subjects.

The resulting trajectory of work offers an important critique of public health as a form of normative power (see, for example, LeBesco, 2011; Polzer, Mercer, & Goel, 2002; Robertson, 2001; Thompson, Pearce, & Barnett, 2007). While this work is important, we have become concerned about its ossification and overwhelmingly negative style of critique. By negative critique we mean a tendency to take pleasure in pointing out the failings of public health, while remaining relatively unencumbered by an obligation to help produce something that might work differently. As editors, reviewers and educators, we have observed the consolidation of a formulaic application of governmentality to the critique of public health. This body of work repeatedly argues that public health in the areas of obesity, HIV prevention, smoking, physical activity and the like governs conduct by encouraging us to individually manage our health risks. At its worst, it reproduces a style of analysis that reduces public health to behavioural health promotion, understands its mode of exercise of power as singularly productive, represents neoliberalism as little more than healthy citizenship, and imagines the public health subject only as a self-governing activator of risk discourse. While it calls into question how public health imagines itself to govern the conduct of people, it is less concerned with how health promotion can be transformed or with helping to make such transformations. Of course, Foucauldian work is by no means alone in expressing a negative social science critique *of* public health. But it is the variant that most immediately has encouraged our interest in articulating an alternative.

Building the space in-between: Critical social science *with* public health

From a perspective emphasizing the fluidity of social and conceptual practices, the in/of dichotomy can look hopelessly clear-cut. Scholars stress that the diversity of theoretical approaches and research strategies in social research on health blurs the terms of Straus' initial distinction (Levine, 1987). Horobin (1985) argues that the in/of opposition is a 'gross over-simplification' that ignores how applied problems are repurposed in sociological research. Usher suggests that Straus over-emphasized the significance of institutional location for research about medicine and public health and that a growing emphasis on applied sociological research encourages a convergence of sociologies *of* and *in* medicine (Usher, 2007). Sociology of health journal editors interviewed by Giarelli (2012) emphasize the fluid boundaries between a sociology *of* and *in* medicine and call for terms that more fully encompass the range of political commitments, uses of theory, and collaboration with health care actors that characterize contemporary sociologies of health. Finally, Straus himself revised his early position. Reflecting on his career some 40 years following the publication of his landmark article, he called for a more critical and reflexive stance towards the dichotomy and acknowledged that medical sociologists can do pure, critical and applied research simultaneously.

In light of these criticisms, scholars have turned to alternative, less polarized conceptualizations of the relationship between social science and medicine. The phrase 'sociology *with* medicine' has become particularly popular. Horobin (1985) appears to have first used the term in his defence of an autonomous, applied medical sociology. Bury (1986) argues for a sociology *with* medicine as a corrective to the divide between a sociology *in* and *of* medicine and to the relativism he associates with social constructionist

approaches to medical sociology. Clair (1993) expresses sociology *with* medicine as an approach that preserves the independence, but also intertwines the interests of medicine and sociology. Clair's sociologist *with* medicine conducts empirical research that tests sociological theory, addresses practical problems and incorporates the experiences of patients.

While sociology *with* medicine has emerged as the preferred term for moving beyond the strictures of the in/of dichotomy, very little has been written that explores what it, or a sociology *with* public health, might actually involve at the level of research practice. In some instances, the term appears to limit rather than open up a space of dialogue by suggesting that whatever tensions that may have existed between a sociology *in* and *of* medicine have been resolved (Usher, 2007). In a similar way, the term social science *with* public health might evoke an uncomplicated space of complementarity or shared interests. There is, after all, a long practice of emphasizing how sociology and public health, particularly in their social justice traditions, hold much common ground. Both are described as being concerned with the activities of people in groups, the operation of sociocultural and structural phenomena, and a broad notion of health that extends beyond biomedicine (Coreil, 2008; Strong, 1979).

While we recognize the importance of shared interests, our central argument is that developing a robust critical social science *with* public health requires recognizing and addressing sources of difference and tension between public health and social science. As with many relationships, critical social science *with* public health is about the challenge of negotiating connections with a contradictory object. Our vision of social science *with* public health expresses a complex normative politics that simultaneously critiques and embraces aspects of the contemporary public health project. It involves bridging the space between application and critique by accepting, rather than refusing, the tensions between public health regulation, justice and 'empowerment'.

Chantal Mouffe's (2000) work on agonism informs our commitment to recognizing the productive value of the epistemological and political tensions between social science and public health. In *The Democratic Paradox* (2000), Mouffe uses the concept to construct a vision of democratic citizenship that contrasts with models of communicative rationality and discourse ethics expressed by Rawls and Habermas. Rather than suggesting that impartial exchange of arguments by reasonable people secures democratic citizenship, she argues for a vision of democracy suffused with power relations, affect and passion, in which conflict can be channelled productively. We appropriate the term agonism not to suggest that there is a permanent state of conflict between social science and public health, but to emphasize that sites of conflict can and do exist. In our view, developing a critical social science *with* public health is less about imagining an idealized space of harmony than about recognizing, and working productively with, difference. Below, we describe how this has played out in our work with tobacco control.

Experiences from critical social science research with tobacco control

We do not view our research as the singular expression of the scholarly practice we envision by a critical social science *with* public health, but we prefer to speak from direct experience when articulating spaces of possibility for a new relationship between public health and social science. There are many scholars who position social science methods and theories in productive epistemological tension with established public health science and engage in research that aims to improve and/or seek alternatives to existing public health activities. For example, Eakin et al. (1996) combined Marxist and Foucauldian approaches in their critique of the displacement of health promotion discourses by population health perspectives in Canada in the late 1980s. Bell, Dennis, Robinson, and Moore (2015) have drawn on the theoretical and methodological resources of critical anthropology to rethink smoking prevention. Will (2017) takes inspiration from Science and Technology Studies to imagine new forms of scholarly engagement with public health that recognize the multiple forms and effects of public health practice and that replace 'denunciation' with a mixture of care for and critique of public health. Still others have engaged with social science theories of practice in an attempt to refocus public health policies and interventions on 'the emergence, persistence or disappearance of shared social practices', instead of individual behaviours or structural conditions (Blue, Shove, Carmona, & Kelly, 2016:45; Cohn, 2014; Nettleton & Green, 2014).

Of course, these scholars do not necessarily conceptualize their work as critical social science *with* public health. The contribution of this paper is to specifically name that intellectual space and to describe some of what it may involve. Our account emphasizes the conflicts and tensions we have experienced with tobacco control and how we have tried to orient to them as a source of possibilities. We describe how we have engaged directly with tobacco control practitioners and used social science theory and concepts to help change how the field of tobacco control problematizes smoking and intervenes in the area of smoking prevention. A defining feature of our work has been a relationship of agonism to tobacco control research and practice. The tensions we have experienced arise out of the epistemological organization of tobacco control research, the politics of tobacco control interventions and the broader relations of conflict that characterize the field.

While heterogeneous, tobacco control is a field of research dominated by the post-positivist epistemological commitments most evident in mainstream epidemiological research. The field relies primarily on population health intervention research, survey research methods and epidemiological surveillance practices. The data created through such research is often understood as a direct reflection of reality. When theory is explicitly used, it often takes the form of predictive or other models of individual behaviour change or social influences on smoking. Qualitative research is less common and has tended to focus on understanding why people smoke, barriers to cessation and experiences of tobacco control programming.

In Canada, tobacco control policy and interventions have enlisted protection, health promotion, legislation, and taxation to discourage smoking or promote smoking cessation. Since the 1988 federal Non-smokers' Health Act, governments have increasingly focused on protecting the non-smoker by limiting or prohibiting smoking in public places. In recent years, Canadian tobacco smoking prevalence has stagnated, social inequalities in smoking based on education, income and occupation have widened and governments have faced pressures to prohibit smoking in an ever-expanding sphere of private and public places (Corsi et al., 2014). These developments have been accompanied by the denormalization of smoking. Tobacco control has positioned smokers as risks to their own health and, through passive smoking exposure, the health of others. Unlike other areas of health promotion, it has generally avoided engaging with target audiences when developing interventions. These practices formed a barrier to our engagement with tobacco control insofar as they exacerbate existing social inequalities in health (Bell, Salmon, Bowers, Bell, & McCullough, 2010; Dennis, 2013) and constitute what Bourdieu refers to as the 'symbolic violence' of unquestioningly positioning middle-class sensibilities as normative truth (Poland, 2000).

Perhaps more than any other area of public health, tobacco control conflicts with private industry. Numerous scholars have described the challenges tobacco control has faced responding to industry efforts to attract new smokers through marketing and sponsorship, industry claims that research linking second-hand smoke and health is 'junk science', and industry attempts to manufacture doubt through research on the health effects of smoking (Francis, Shea, & Samet, 2006; Michaels & Monforton, 2005). Decades of confrontation with the tobacco industry have promoted an approach to smoking prevention/cessation that can take a zero-sum, almost crusade-like form. In the context of a 'war on tobacco', it is perhaps inevitable that there appears to be little neutral ground: one works either for or against the cause. Framing critical reflection as a distraction and potential source of 'fodder' for the other side, as often happens in such contexts, presents a considerable challenge for critical social science interventions.

Our agonistic relationship with tobacco control research and practice foreclosed the option of working in the tradition of either a social science *in* or *of* public health. We viewed contributing to social science *in* tobacco control in the form of further applied research about why people smoke or the barriers to smoking cessation as untenable, given the potential for such research to add to the stigmatization of smokers. Pursuing a social science *of* tobacco control, through normative critique at a distance, seemed equally ill-advised, given how the field's conflict with private industry rendered it both sensitive and hostile to external criticism. Our response to this predicament was to pursue critical social science *with* public as an alternative mode of engagement.

Our experience stems from a program of research that draws on contemporary social theory and began to test the contours of direct engagement with tobacco control practitioners with a view to reducing harms and inequities resulting from established approaches to smoking prevention/cessation. It has two principle dimensions. The first produced critical social science knowledge about tobacco control discourses and practices and their putative effects (especially the exacerbation of inequalities). The second drew on that critique to encourage reflexivity among tobacco control practitioners by bringing the experiences of youth smokers into their phenomenal universe.

In the first phase of our work, we drew on Bourdieu and Foucault to counter prevailing assumptions about smoking as an individual behaviour with a view of smoking as a complex social practice shaped by social relations of which tobacco control forms a crucial part (Frohlich, Poland, Mykhalovskiy, Alexander, & Maule, 2010; Poland et al., 2006). Our empirical cornerstone was a comparative study of youth smoking and tobacco control conducted in Montreal and Vancouver from 2007 to 2009 (Frohlich, Mykhalovskiy, Poland, Haines-Saah, & Johnson, 2012). To elucidate youth and practitioner understandings of social inequalities in smoking, including their social class dimensions, we conducted focus groups with youth who smoke and interviews with practitioners. Our research highlighted a class divide between the rhetoric and discourse of tobacco control practitioners, steeped in middle-class values privileging health, choice, individual responsibility and moral hazard, and the everyday lived realities of low income youth who turn to smoking as a way of coping with or rebelling against chronic marginalization at the hands of authorities and institutions (schools, welfare systems, etc.).

Practitioners framed economically marginalized youth smokers in distinct ways, linking low social class with a high risk of smoking through a language of addiction, flawed biology, genetic susceptibility and misguided individual choices (Frohlich et al., 2012). They viewed lower-class youth smokers as particularly in need of interventions focused on their problematic biologies, personalities and characters. Our research demonstrated how tobacco control can contribute to social inequalities in smoking by supporting a discourse of choice and individual responsibility against a backdrop of the erasure of structural inequity in life chances and material/social living conditions. For the most part, practitioners seemed unaware of their potential role in producing the very notion of a problematic youth smoker in need of being fixed through educational, medical or legal interventions. Their prevailing problematization of youth smokers obscured the social relations linking social class and smoking and missed opportunities to involve youth smokers in policy change and program development. By failing to address the lived realities of low-income youth who smoke, and instead deploying intervention strategies that targeted the minds and bodies of youth, practitioners risked generating youth resistance and resentment, thus potentially 'producing' low-income youth smokers, the very phenomenon they wished to reduce.

Rather than leave these insights at the level of a social science *of* tobacco control, we sought to engage with practitioners to reduce the stigmatizing effects of tobacco control. Participants who were drawn to our work expressed appreciation for what they saw as our capacity to name and frame misgivings they had about their work that they had not been able to articulate clearly themselves and which their current employment contexts had not enabled or encouraged them to explore. Their concerns signalled an opening for further work that might intervene in the production of problematic tobacco control discourses about youth smokers. The second phase of our work developed a workshop designed to help practitioners recognize how their activities may reinforce inequities and contribute to the marginalization of youth smokers (Bisset, Tremblay, Wright, Poland, & Frohlich, 2017). This work proved an important first step for us in exploring the possibilities of a critical social science *with* public health.

The workshop invited practitioners to reflect on a video created from the earlier focus groups and interviews, which contrasted how low social class youth and practitioners experience smoking. By representing youth's experiences of smoking and stigmatization, the video intervenes in the exclusion of smokers from tobacco control programming and invites practitioners to understand the experiences of those who are the focus of their interventions. Informed by the broader project of encouraging reflexivity among public health practitioners (Boutilier & Mason, 2012), the video asks practitioners to reflect on their own work and how it may exacerbate social inequities in smoking (Bisset et al., 2017). It invites tobacco control practitioners to question their professional assumptions about smoking, to

identify the unintended consequences of their interventions, including how they contribute to health inequalities, and to transform public health discourses and actions.

We brought together nine tobacco control practitioners from across Canada to participate in a two-day training session to equip them with tools they would require to run workshops promoting reflexivity in their own workplaces. The group reconvened six months later to debrief about the experience and to brainstorm next steps. Qualitative interviews were conducted to better understand participant experiences (Bisset et al., 2017).

While practitioners in some jurisdictions may be sensitized to the stigmatizing effects of tobacco control programming, that was not our experience of the Canadian context at the time we conducted our research. In Canada, tobacco control is delimited by conflict with the industry. The stakes are high, programming is focused on reducing population level smoking rates and critique of practice is viewed with suspicion and/or as a distraction. In that context, one of the main struggles we encountered was trying to make the concept of reflexivity sufficiently 'relevant' and 'actionable' for practitioners sensitive to the potential unintended impacts of their work, but heavily predisposed to immediate issues of tobacco control practice.

We imagined our effort as a matter of 'translating' or strategically representing reflexivity so that it might operate as a practical and meaningful concept within practitioners' work cultures. On the one hand, this meant working within the demands faced by practitioners to emphasize how reflexivity might respond to the diminishing returns of conventional tobacco control approaches by rethinking assumptions and enhancing effectiveness. On the other hand, it meant being wary of 'overselling' reflexivity and mindful of how it might be appropriated as yet another tool in the programmer's toolkit without significantly shifting practice. As a result, we emphasized how reflexivity offered an opportunity to deeply rethink tradition and open up new possibilities for policy and programming. Taking aim at the field's stagnation, we represented reflexivity as worth the risk of engagement, with the hope that our work might help establish stigmatization and other unintended consequences of tobacco control work as important outcomes worthy of practitioners' serious attention.

The agonistic tension between theory, critique and practice imperatives was palpable throughout our efforts. Practitioners demonstrated a capacity to understand reflexivity and some of its implications for their ongoing work in the field and were mostly successful in running at least one workshop with their peers. However, our translation efforts were unable to promote changes in organizational cultures and conditions of work required for reflexivity to be sustained over the long-term. In hindsight, it became clear that the context of practitioners' work made it difficult for the project to fully succeed. Few tobacco control practitioners had the time or space to engage in ongoing reflexivity in their workplaces and while they were able to participate wholeheartedly in our process they lacked the experience and confidence in reflexivity to *lead* such discussions with their peers. Back in their places of work, reflexivity was experienced as counter-hegemonic and as potentially undermining the credibility of existing practice by distracting practitioners from the pressing need to act (Bisset et al., 2017). While we were able to 'bring' reflexivity to the field and temporarily disrupt 'business as usual' among practitioners, our work did not establish the inequitable effects of tobacco control programming as a central concern among practitioners.

Conclusion

This paper recommends a mode of scholarly engagement that we call critical social science *with* public health. Drawing on the notion of agonism, we have emphasized how that engagement is a matter of working productively with epistemological and political tensions, rather than creating a complementarity of interests. Our aim is not to laud our own efforts or offer them up as a singular expression of critical social science *with* public health. Indeed, given resource constraints, an obdurate field of practice, the exclusion of smokers from policy and program development, and other factors, our social science *with* tobacco control has had modest impacts. Our point is not to tell success stories, but to encourage social science narratives about the possibilities, limits, and challenges of negotiating the complex,

conflictual terrain that characterizes critical social science engagement *with* public health research, reasoning and intervention.

Deep population health inequalities, growing social marginalization and the widespread politics of austerity are among the problems faced by the contemporary public health movement. Critical social scientists have an important role to play in responding to these problems through engagement with public health actors. However, in our view, the established forms of social science *in* and *of* public health are inadequate to the task. Neither social science nor public health is well served when social science research on public health issues is reduced to a service relation that leaves public health unchallenged. By the same token, negative critiques of public health are at risk of perpetuating well-worn shibboleths about the problems inherent in public health modes of governance, while sidestepping direct scholarly efforts to transform public health practices.

We do not orient to critical social science *with* public health as a panacea for all that ails the relationship between social science and public health. Rather, we view it as an invitation for critical social scientists to name, enter into, and negotiate productive tensions with public health. Critical social science *with* public health is a mode of scholarly practice that orients to epistemological and political differences with public health as a source of productive opportunity and that mobilizes social theory and methodology to contribute to scholarship and enhanced public health practice. We encourage further discussion about what, at the level of research practice, is involved in negotiating an agonistic relationship with public health.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by a CIHR Planning and Dissemination Grant – Institute Community Support [grant number 385694]. An earlier version of this paper was presented at the 2017 Canadian Sociological Association Annual General Meeting.

ORCID

Eric Mykhalovskiy http://orcid.org/0000-0002-7518-7784
Melanie J. Rock http://orcid.org/0000-0003-2436-3159
Leigha Comer http://orcid.org/0000-0001-8848-8685

References

Abel, T., & Frohlich, K. (2012). Capitals and capabilities: Linking structure and agency to reduce health inequalities. *Social Science & Medicine, 74*, 236–244.

Albert, M., & Laberge, S. (2017). Confined to a tokenistic status: Social scientists in leadership roles in a national health research funding agency. *Social Science & Medicine, 185*, 137–146.

Armstrong, D. (1983). *Political anatomy of the body: Medical knowledge in Britain in the twentieth century*. Cambridge, UK: Cambridge University Press.

Armstrong, D. (1995). The rise of surveillance medicine. *Sociology of Health and Illness, 17*(3), 393–404.

Badgley, R. F. (1963). Social sciences and public health. *Canadian Journal of Public Health, 54*(4), 147–153.

Bell, K., & Green, J. (2016). On the perils of invoking neoliberalism in public health critique. *Critical Public Health, 26*(3), 239–243.

Bell, K., Salmon, A., Bowers, M., Bell, J., & McCullough, L. (2010). Smoking, stigma and tobacco 'denormalization': Further reflections on the use of stigma as a public health tool. A commentary on social science & medicine's stigma, prejudice, discrimination and health special issue (67: 3). *Social Science & Medicine, 70*(6), 795–799.

Bell, K., Dennis, S., Robinson, J., & Moore, R. (2015). Does the hand that controls the cigarette packet rule the smoker? Findings from ethnographic interviews with smokers in Canada, Australia, the United Kingdom and the USA. *Social Science & Medicine, 142*, 136–144.

Bisset, S., Tremblay, M. C., Wright, M. T., Poland, B., & Frohlich, K. L. (2017). Can reflexivity be learned? An experience with tobacco control practitioners in Canada. *Health Promotion International, 32*(1), 167–176.

Blue, S., Shove, E., Carmona, C., & Kelly, M. (2016). Theories of practice and public health: Understanding (un)healthy practices. *Critical Public Health, 26*(1), 36–50.

Boutilier, M., & Mason, R. (2012). The reflexive practitioner in health promotion: From reflection to reflexivity. In I. Rootman, S. Dupéré, A. Pederson, & M. O'Neill (Eds.), *Health promotion in Canada: Critical perspectives* (3rd ed.). (pp. 196–208). Toronto, ON: CSPI.

Bury, M. R. (1986). Social constructionism and the development of medical sociology. *Sociology of Health & Illness, 8*(2), 137–169.

Craig, P., Di Ruggiero, E., Frohlich, K., Mykhalovskiy, E., & White, M. on behalf of the Canadian Institutes of Health Research (CIHR) – National Institute for Health Research (NIHR) Context Guidance Authors Group. (2018). *Taking account of context in population health intervention research: guidance for producers, users and funders of research*. Southampton: NIHR Evaluation, Trials and Studies Coordinating Centre. Retrieved from: https://www.journalslibrary.nihr.ac.uk/downloads/FullReport-CIHR-NIHR-01.pdf.

Clair, J. M. (1993). The medical sociologists' contribution to the interdisciplinary geriatric assessment unit: A sociology 'with' medicine. *Sociological Practice, 11*(1), 176–196.

Coburn, D. (2004). Beyond the income inequality hypothesis: Class, neo-liberalism, and health inequalities. *Social Science & Medicine, 58*(1), 41–56.

Cohn, S. (2014). From health behaviours to health practices: An introduction. *Sociology of Health & Illness, 36*(2), 157–162.

Coreil, J. (2008). Social science contributions to public health: Overview. In K. Hegggenhougen & S. Quah (Eds.), *International Encyclopedia of Public Health* (pp. 101–114). Amsterdam: Oxford Press.

Corsi, D. J., Boyle, M. H., Lear, S. A., Chow, C. K., Teo, K. K., & Subramanian, S. V. (2014). Trends in smoking in Canada from 1950 to 2011: Progression of the tobacco epidemic according to socioeconomic status and geography. *Cancer Causes & Control, 25*(1), 45–57.

De Vries, R. (2004). How can we help? From 'sociology in' to 'sociology of' bioethics. *The Journal of Law, Medicine & Ethics, 32*(2), 279–292.

Dennis, S. (2013). Researching smoking in the new smokefree: Good anthropological reasons for unsettling the public health grip. *Health Sociology Review, 22*(3), 282–290.

Eakin, J., Robertson, A., Poland, B., Coburn, D., & Edwards, R. (1996). Towards a critical social science perspective on health promotion research. *Health Promotion International, 11*(2), 157–65.

Earle, S. (2016). Why should nurses study sociology? In E. Denny, S. Earle, & A. Hewison (Eds.), *Sociology for nurses* (3rd ed.). (pp. 30–50). Cambridge: Polity Press.

Emirbayer, M. (1997). Manifesto for a relational sociology. *American Journal of Sociology, 103*(2), 281–317.

Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The foucault effect: Studies in governmentality* (pp. 87–104). Chicago, IL: University of Chicago Press.

Francis, J. A., Shea, A. K., & Samet, J. M. (2006). Challenging the epidemiologic evidence on passive smoking: Tactics of tobacco industry expert witnesses. *Tobacco Control, 15*(4), iv68–iv78.

French, M., & Mykhalovskiy, E. (2013). Public health intelligence and the detection of potential pandemics. *Sociology of Health & Illness, 35*(2), 174–187.

Frohlich, K., Poland, B., Mykhalovskiy, E., Alexander, S., & Maule, C. (2010). Tobacco control and the inequitable socio-economic distribution of smoking: Smokers' discourses and implications for tobacco control. *Critical Public Health, 20*(1), 35–46.

Frohlich, K., Mykhalovskiy, E., Poland, B. D., Haines-Saah, R., & Johnson, J. L. (2012). Creating the socially marginalised youth smoker: The role of tobacco control. *Sociology of Health & Illness, 34*(7), 978–993.

Giarelli, G. (2012). Sociological theory and sociology of health and medicine in the international journals. Round table with Ellen Annandale, Vololona Rabeharisoa, Graham Scambler, Clive Seal, Debra Umerson. In G. Giarelli & R. Vignera (Eds.), *Sociology and sociology of health: A round trip* (pp. 155–171). Milan, Italy: FrancoAngeli.

Green, J. (2012). 'One health, one medicine' and critical public health. *Critical Public Health, 22*(4), 377–381.

Green, J., & Labonte, R. (2008). *Critical perspectives in public health*. London: Routledge.

Haines, R. J., Poland, B. D., & Johnson, J. L. (2009). Becoming a 'real' smoker: Cultural capital in young women's accounts of smoking and other substance use. *Sociology of Health & Illness, 31*(1), 66–80.

Hawe, P., & Potvin, L. (2009). What is population health intervention research? *Canadian Journal of Public Health, 100*(1), I8–I14.

Hawe, P., Shiell, A., & Riley, T. (2004). Complex interventions: How 'out of control' can a randomised controlled trial be? *BMJ, 328*, 1561–1563.

Hawe, P., Di Ruggiero, E., & Cohen, E. (2012). Frequently asked questions about population health intervention research. *Canadian Journal of Public Health, 103*(6), e468–e471.

Horobin, G. (1985). Medical sociology in Britain: True confessions of an empiricist. *Sociology of Health & Illness, 7*(1), 94–107.

Labisch, A. (1998). History of public health – history in public health: Looking back and looking forward. *Social History of Medicine, 11*(1), 1–13.

Lapinski, M. K., Funk, J. A., & Moccia, L. T. (2015). Recommendations for the role of social science research in One Health. *Social Science & Medicine, 129*, 51–60.
LeBesco, K. (2011). Neoliberalism, public health, and the moral perils of fatness. *Critical Public Health, 21*(2), 153–164.
Levine, S. (1987). The changing Terrains in medical sociology: Emergent concern with quality of life. *Journal of Health and Social Behavior, 28*(1), 1–6.
Levinson, R. (1998). Issues at the interface of medical sociology and public health. In G. Scambler & P. Higgs (Eds.), *Modernity, medicine and health* (pp. 66–81). London: Routledge, NY: Syracuse University Press.
Linder, F. (2004). Slave ethics and imagining critically applied anthropology in public health research. *Medical Anthropology, 23*(4), 329–358.
Lupton, D. (1995). *The imperative of health: Public health and the regulated body*. Thousand Oaks, CA: Sage.
Michaels, D., & Monforton, C. (2005). Manufacturing uncertainty: Contested Science and the protection of the public's health and environment. *American Journal of Public Health, 95*(S1), S39–S48.
Miller, P., & Rose, N. (1990). Governing economic life. *Economy and Society, 19*(1), 1–31.
Mouffe, C. (2000). *The democratic paradox*. London: Verso.
Nettleton, S., & Green, J. (2014). Thinking about changing mobility practices: How a social practice approach can help. *Sociology of Health & Illness, 36*(2), 239–251.
Olesen, V. L. (1974). Convergences and divergences: Anthropology and sociology in health care. *Medical Anthropology Quarterly: International Journal for the Analysis of Health, 6*(1), 6–10.
Petersen, A., & Bunton, R. (1997). *Foucault, health and medicine*. London: Routledge.
Petersen, A., & Lupton, D. (1996). *The new public health: Health and self in the age of risk*. London: Sage.
Petticrew, M., & Moore, L. (2014). What is this thing called context (and why does it matter for evaluation)? Briefing paper for NIHR.
Poland, B. D. (2000). The 'considerate' smoker in public space: The micro-politics and political economy of 'doing the right thing'. *Health & Place, 6*(1), 1–14.
Poland, B., Frohlich, K., Haines, R. J., Mykhalovskiy, E., Rock, M., & Sparks, R. (2006). The social context of smoking: The next frontier in tobacco control? *Tobacco Control, 15*(1), 59–63.
Polzer, J., Mercer, S. L., & Goel, V. (2002). Blood is thicker than water: Genetic testing as citizenship through familial obligation and the management of risk. *Critical Public Health, 12*(2), 153–168.
Robertson, A. (2001). Biotechnology, political rationality and discourses on health risk. *Health, 5*(3), 293–309.
Rock, M.J. (2017). Who or what is 'the public' in critical public health? Reflections on posthumanism and anthropological engagements with One Health. *Critical Public Health, 27*(3), 3314–3324.
Rosengarten, M., & Michael, M. (2009). The performative function of expectations in translating treatment to prevention: The case of HIV pre-exposure prophylaxis, or PrEP. *Social Science & Medicine, 69*(7), 1049–1055.
Scambler, G. (2007). Social structure and the production, reproduction and durability of health inequalities. *Social Theory & Health, 5*(4), 297–315.
Schneiderman, N. (2001). *Integrating behavioral and social sciences with public health*. Washington, DC: American Psychological Association.
Shinn, M., VanDevanger, N., Bleakley, A., Tannert Niang, K., Perl, S., & Cohen, L. (2003). Use of social and behavioural sciences by public health departments in major cities. *Journal of Urban Health: Bulletin of the New York academy of Medicine, 80*(4), 616–624.
Shoveller, J., Viehbeck, S., Di Ruggiero, E., Greyson, D., Thomson, K., & Knight, R. (2016). A critical examination of representations of context within research on population health interventions. *Critical Public Health, 26*(5), 487–500.
Spitler, H. (2001). Medical sociologyand public health: Problems and prospects for collaboration in the new millennium. *Sociological Spectrum, 21*(3), 247–263.
Straus, R. (1957). The nature and status of medical sociology. *American Sociological Review, 22*(2), 200–204.
Strong, P. M. (1979). Sociological imperialism and the profession of medicine: A critical examination of the thesis of medical imperialism. *Social Science & Medicine, 13A*(2), 199–215.
Suchman, E. A. (1963). *Sociology and the field of public health: Prepared for the American Sociological Association*. New York, NY: Russel Sage Foundation.
Susser, M. (1987). *Epidemiology, health & society: Selected papers*. New York, NY: Oxford University Press.
Thompson, L., Pearce, J., & Barnett, J. R. (2007). Moralising geographies: Stigma, smoking islands and responsible subjects. *Area, 39*(4), 508–517.
Trostle, J. A. (2005). *Epidemiology and Culture*. Cambridge, UK: Cambridge University Press.
Usher, C. L. (2007). Sociology in medicine. In G. Ritzer (Ed.) *Blackwell encyclopedia of sociology*. Blackwell Publishing. Retrieved from Blackwell Reference Online http://www.blackwellreference.com.ezproxy.library.yorku.ca/subscriber/tocnode.html?id=g9781405124331_chunk_g978140512433125_ss1-207
Will, C. (2017). On difference and doubt as tools for critical engagement with public health. *Critical Public Health, 27*(3), 293–302.
Young, D., Borland, R., & Coghill, K. (2010). An actor-network theory analysis of policy innovation for smoke-free places: Understanding change in complex systems. *American Journal of Public Health, 100*(7), 1208–1217.