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A theoretical proposal for the relationship between context and disease

Katherine L. Frohlich,[1] Ellen Corin[2] and Louise Potvin[3]

[1] *School of Public Health, University of California, Berkeley*
[2] *Departments of Psychiatry and Anthropology, McGill University, Quebec, Canada*
[3] *Gris-Université de Montreal, Quebec, Canada*

Abstract Studies of 'context' are increasingly widespread. These studies often become entrenched in methodological debates rather than being conceptually satisfying. We suggest that part of the problem lies in an inappropriate use of 'classic' methods used by epidemiologists to study context and that it may be useful to study, instead, the relationship between agency (the ability for people to deploy a range of causal powers), practices (the activities that make and transform the world we live in) and social structure (the rules and resources in society). We utilise two examples from the current literature to illustrate these problems; the study of lifestyles and social inequalities in disease outcomes. We develop the notion of collective lifestyles as a tentative solution, inspired by Pierre Bourdieu's theory of social action, Anthony Giddens' structuration theory and Amartya Sen's capability theory. Collective lifestyles are defined as an expression of a shared way of relating and acting in a given environment. It is proposed that context is created by relationships between people.

Keywords: Lifestyle, context, social theory, social epidemiology, agency, health inequalities, social structure

The problem

In its origins public health was essentially ecological, relating environmental characteristics to disease outcomes in relation to infectious diseases. John Snow's findings in 1854 that the Broad Street Pump was associated with the cholera epidemic is a classic case in point; the number of deaths in each area of London was associated with the degree of pollution of the part of the

Thames River from which the company obtained its water (Rosen 1993). The growing importance of non-infectious, chronic diseases in industrial nations this century (such as heart disease, cancer and diabetes) caused a shift in risk factor research from environmental factors to individual-level factors such as behavioural and biological characteristics (Syme and Balfour, 1999). This brought about a tendency in epidemiology to explain disease patterns oftentimes solely in terms of the characteristics of individuals (Diez-Roux 1998).

But, to date, individual-level factors fail to account fully for the rise and prevalence of non-infectious, chronic diseases, as well as most diseases of importance to public health. In response to the shortcomings of individual-level factors, and particularly what are called health behaviours, many public health researchers have returned to public health's origins and reconsidered the role of the environment; these studies now being termed studies of context (Macintyre *et al.* 1993, Duncan *et al.* 1996, 1998, Diez-Roux 1998). In order to move away from the perpetuation of the notion that risk is solely individually determined, rather than socially determined (Diez-Roux 1998, McKinlay and Marceau 1999, Pearce and McKinlay, 1998), these contextual analyses have for the most part been concerned with the effects of collective or group characteristics on individual-level health outcomes. In doing so, 'context' researchers hope to move away from the individualisation of risk that views disease status purely as a result of individual choice and as being dissociated from its social context.

Context is currently mostly understood to be the role of group or macro-level variables in the determination of disease in populations. Perhaps because of the importance of existing databases, such as the Census, in providing group-level variables, these contextual studies have primarily focused on what geographers call space and disease, treating context primarily as a geographic location within which aggregations of individuals' attributes can be studied in relation to disease outcomes. This phenomenon is often replicated in studies regarding context and social inequalities in disease. Findings from various studies have suggested that material deprivation within regions is associated with disease rates or perceived health (Haan *et al.* 1987, Blaxter 1990), taking the focus away from an individual socio-economic status (SES) based analysis (focusing solely on personal income or education), to one that also examines regional levels of income, unemployment, housing, and other qualities of the physical environment. Given the interest in regional analyses, health inequalities researchers have tended to equate context with space.

While these studies have certainly helped question the epidemiological tendency towards methodological individualism, there are still shortcomings with contextual analyses. Most importantly, discussions of context tend to become entrenched in debates regarding how it should be operationalised. Are collective features of society reducible to the aggregated attributes of individuals living within areas (*e.g.* unemployment rates in a census tract),

or are they characteristics of a group derived from something other than individual characteristics (*e.g.* no-smoking regulations in neighbourhoods) (Cheadle *et al.* 1992, Chaskin 1997, Yen and Kaplan 1999)? While this issue is critical, it has turned attention away from equally important issues of a more substantive and explicative nature, such as the mechanisms that bring about differential disease rates in different contexts. By studying context solely through macro-level variables (such as average education level), a deterministic position is favoured, that is, researchers implicitly postulate that average education levels influence disease outcomes in a uniform fashion across space and that these types of variables comprise context.

Context researchers are also commonly concerned with determining which aspects of contexts, particularly with respect to social inequalities, produce health inequalities. Once determined, the policy question that ensues is often how best to reduce this social inequality. We will suggest in the paper that such studies may benefit from asking a precursory question, that is, what exactly is meant by inequality – or alternatively – inequality of what? In so doing, we seek to contextualise the impact of material resources on health outcomes.

The shortcomings in the current literature raise many questions. What is this context that we are analysing? Does it go beyond the notion of area or place? What are these processes that are trackable by epidemiologists through disease outcomes? In this paper we examine the notion of context, using practice theory in which the social structure and people's practices are conceptualised in a recursive relationship[1]. In so doing, we hope to yield a more dynamic comprehension of how context influences disease rates as well as the mechanisms that bring about different distributions of disease across contexts. Otherwise stated we discuss how context studies could attempt to understand both the factors as well as the mechanisms that put people at risk of risks (Link and Phelan 1995).

Beginning with a critique of social epidemiological methods generally, and the notion of context and lifestyle more specifically, this paper will propose the integration of some current social theory into a framework entitled collective lifestyles with a view to adding to our knowledge of the ways in which context shapes disease and inequalities in disease outcomes.

Moving beyond the enumeration of variables: an epistemological and methodological examination of social epidemiology

We propose that one of the fundamental barriers to understanding how context is related to disease outcomes stems directly from the epistemological and methodological assumptions inherent in social epidemiology, social epidemiology being the study of the social determinants of health. We suggest that social epidemiologists tend to transpose to the study of social phenomenon and disease the assumptions of 'classic' risk factor epidemiology

and that this transposition has implications for our ability to understand the social context. In order to comprehend the origins of this problem, a brief critique of social epidemiology is required.

Epidemiology is taught and primarily practised as a series of methods whose purpose is to generate knowledge regarding the distribution and determinants of human disease using prevalence, incidence rates, incidence density and numerous others. With regard to causes of disease, analytic epidemiology permits the identification of a certain number of risk factors that are consistently associated with particular disease outcomes. Typically, epidemiological approaches yield a predictive model; one in which the objective is to identify and isolate a certain number of risk factors. The objective is to create the most comprehensive list of factors associated with risk modification and to estimate the isolated effect of each factor while controlling the effect of the others, all of this with a view to increasing the predictive capacity of the model (Potvin and Frohlich 1998). While concerned with the modelling of the oftentimes complex relationships among risk factors in the etiology of disease, however, modern epidemiology has a tendency to overlook why these risk factors exist, how they are interrelated (Krieger 1994), and why they affect the people they do; or, more simply put, epidemiology tends to shy away from theory, choosing instead to focus on study methodology (Krieger and Zierler 1996).

This theoretical weakness becomes an epistemological problem when engaging in *social* epidemiological studies in particular. These studies, like those of classic epidemiology, are concerned with the distribution and determinants of disease but with reference to the social world. As noted by S. Leonard Syme in the foreword to a recent textbook dedicated to the exploration of social epidemiology (Berkman and Kawachi 2000), a significant distinction between social from other kinds of epidemiology is that the former turns the focus to social groups, whether they be families, neighbourhoods or communities.

By looking at groups we are confronted with two important issues. The first issue is the relationship between individual and collective characteristics. An extensive debate has arisen in the past few years questioning the exclusive use of an individual risk-factor approach in epidemiology and offering a population approach to epidemiology (Rose 1992, Pearce 1996, Pearce and McKinlay 1998, Susser 1999). Part of the argument from the population perspective is that risk factor epidemiology is at an impasse as epidemiologists are increasingly studying risk factors with very small relative risks and population attributable risks (Pearce and McKinlay 1998). Furthermore, risk factors, while observable in individuals, come about and are reinforced within a context (McKinlay and Marceau 1999); a context that can be studied, in part, with population or group attributes. Without studying context we study individuals based on disease or exposure status, almost always disconnected one from the other, although assembled in large numbers (Susser 1999).

Second, whereas risk-factor epidemiologists may be able to confirm associations between biological phenomena and disease outcomes (take for instance the knowledge we now have regarding the effect of cigarette smoking on lung cancer, or our knowledge regarding the determinants of infectious diseases), it is a different endeavour when attempting to understand, for instance, how social constructs such as 'race'[2] influence health and disease. It is increasingly acknowledged that such risk factors may be little more than the epiphenomena of structural position in society (Link and Phelan 1995). As such, constructs such as race are markers for something else.

Social constructs are different from risk factors, first, because the causal link is not direct; being of a particular race does not directly *cause* disease, and indeed, the analogy with effective chemical agents such as tobacco may be problematic. So, for instance, recent social epidemiologic research on the relationship between race and mortality outcomes (Geronomius *et al.* 1999), while demonstrating important descriptive outcomes of large health disparities between rural and urban dwellers, as well as between white and African-Americans, does not delve into what it is about one's race category, nor one's place of dwelling, that might be leading to these disparities.

Second, race is a social construct, one that exists as a social convention devised for categorising people. Rather than being an 'objective' variable, then, race is a set of social relations and practices (Bartley *et al.* 1998, Nazroo, 1998). Given this, race is not consonant with direct biological determinants such as cigarette smoking in the case of lung cancer.

Among the social epidemiological studies in which this epistemological problem is most transparent are the studies regarding health inequalities and, more recently, studies concerned with context. Over the last 10 years this former body of research has been largely driven by a search for explanations of the relationship between social inequality and health/disease. Four initial explanations were explored in the Black Report (Townsend and Davidson 1988); artefact explanations (a problem of measurement), theories of natural or social selection (sick people become poor), cultural/behavioural explanations (poor people have poor health habits) and material/structural factors (life circumstances associated with poverty make people more vulnerable to disease). Since the initial report was published, material/structural explanations for health inequalities, operationalised often as education, income, housing, etc., have largely dominated the literature.

Macintyre (1997) offers a helpful nuance in relation to materialist/structural explanations of health inequalities. She suggests that there is a confusion between 'materialist' and 'material' explanations for these inequalities. The latter views the physical, material conditions of life, such as income, as being directly responsible for the outcomes observed. The former, on the other hand, considers the conditions that result from one's income, that is, the psychosocial and physical factors that arise from one's income level.

We take inspiration from the 'materialist' explanations and suggest that the study of the relationship between SES and disease could be analysed as an exemplar of the social relations and practices in a society. For the most part, SES is often still analysed in line with the 'material' explanations, and thus, employed in such a way that the variable is de-contextualised[3]. Consequently, material/structural factors in health inequalities research are frequently studied as proxies for social structure and each variable is not understood in terms of its relation to other elements in the system, nor in terms of how it is manifested in and reinforced by social practices.

Recent work from Britain illustrates this common occurrence in social epidemiological studies. Pattenden *et al.* (1999) examine the relationship between inequalities in low birth weight and parental social class, area deprivation, and 'lone mother' status. The authors argue that to monitor inequalities we must control for socioeconomic confounding at either the individual or the collective level. They concur that their measures of SES are but 'blunt instruments' for measuring the effects of deprivation on health but do not themselves highlight what social processes might underlie their findings.

The issue thus stated is that we need to go beyond the enumeration of, and the attribution of direct causation to, variables in social epidemiology. The variables used in social epidemiology represent social relations rather than objectified concepts. What is missing is a discussion of the relationship between agency (the ability for people to deploy a range of causal powers), practices (the activities that make and transform the world we live in) and social structure (the rules and resources in society). Without such an understanding, factors associated with people's disease experiences within a context tend to be denuded of social meaning. In the following section we will demonstrate that while context studies strive to move away from methodological individualism by examining group characteristics, rather than individual attributes, they often manifest epistemological problems by treating social variables in an equivalent fashion to biological determinants. Oftentimes this becomes an exercise in searching for 'new' risk factors rather than a theoretical quest to explain the mechanisms through which risk factors influence health outcomes (McKinlay and Marceau 1999). We will therefore highlight some of the difficulties in defining context in a sociologically meaningful way. We then move on to discuss the notion of lifestyle, analysed as an example of the shortcomings of some social epidemiological studies when applied to context studies.

Critique of the epidemiological use of context

Many of the latest studies of context associate the determinants of health as operating at two different levels: a lower level compositional effect and a higher level contextual one (Duncan *et al.* 1998). Compositional effects are

said to operate because of the varying distribution of types of people whose individual characteristics influence their health. That is, people with similar characteristics will have similar health experiences wherever they live. For instance, upper class individuals have similar disease experiences whether they live in lower class or upper class areas. Contextual effects, on the other hand, operate where the health experience of individuals depends not only on their characteristics but also on the attributes of the area where they live, so that similar people have different health status from one place to another (Shouls *et al.* 1996). Contextual effects for example would dictate that an upper class person living in an upper class area would be in better health than an upper class person living in a lower class area. Such effects were reported by Haan *et al.* (1987) who found that residing in a neighbourhood designated as a poverty area was a risk factor for subsequent mortality above and beyond the characteristics of the individual.

These contextual effects have been recently developed under the rubric of supra-individual or ecologic effects; effects due to properties of areas for which there is no individual equivalent (Ellaway and Macintyre 1996, Macintyre *et al.* 1993, Macintyre and Ellaway 1998, Sooman and Macintyre 1995). These aforementioned studies examine the socially structured features of four areas in Glasgow, Scotland in terms of the local social and physical environments to determine how these environments might be enhancing or inhibiting people's opportunities to lead healthy lives (Macintyre 2000). They examine qualities of these neighbourhoods such as the price and availability of healthy foods, crime rates, facilities for physical recreation, and many more.

There is an increasingly large body of literature dedicated to the 'teasing out' of these compositional from the contextual effects (Diez-Roux *et al.* 2000, Duncan *et al.* 1998). We would argue that while context studies strive largely to move away from the adoption of an individualistic perspective, by examining what Syme entitles social groups, they tend to follow other classic epidemiological traditions nonetheless. First, little attempt is made to understand how these effects might be influencing health outcomes, that is, what the mechanisms are. So while contextual studies may look at 'new' determinants such as ecologic factors, they mostly do not delve into *how* these determinants influence health. Second, compositional and contextual effects are largely viewed to be separate phenomena. Third, there is a tendency to analyse areas in terms of what is known as 'space' by geographers, rather than 'place'. The study of space is the study of attributes found within the unit of analysis. For example, if interested in neighbourhoods, one would consider the attributes of the individuals within the neighbourhood, such as SES, or the resources available in neighbourhoods, such as parks. The study of place, on the other hand, is more concerned with processes and the social and economic relations that cohere within areas such as what people do in parks.

The main thesis of this paper is that the theoretical reconciliation of these two phenomena may provide a mechanism through which we can

comprehend how the social gets under the skin. As such, we suggest that what are currently known as compositional and contextual effects are mutually reinforcing and jointly influence health outcomes. Furthermore, this dichotomy may be a false one as both the attributes of people and the resources in 'space', will impinge on the social relations and practices found in 'place'. We advocate, therefore, a notion of context that brings these two notions together.

Lifestyle and context

The separation between contextual and compositional effects is paralleled by the manner in which the bio-medical literature has stripped the notion of lifestyle from its social context to focus almost exclusively on its behavioural, volitional aspects. The concept of lifestyle, much inspired by Max Weber's comments in *Economy and Society* (1922), has changed significantly since first conceived (Cockerham *et al.* 1997). Variation in lifestyle for Weber came about as more than just a function of economically determined social class. Weber conceptualised a holistic notion of lifestyle that included income, occupation, education and status. Weber also discussed lifestyle in terms of choices and chances. He did not consider life chances to be a matter of pure chance, but instead, as the opportunities that people encounter in life because of their social situation. It follows from this that lifestyles are not random and unrelated to structure but are choices influenced by life chances (Cockerham *et al.* 1997). Life chances and hence life choices are both socially determined.

Despite these origins the term lifestyle, widely adopted by researchers in health promotion, social epidemiology and other branches of public health, has taken on a very particular and different meaning from that intended by Weber. When lifestyle is currently discussed within the socio-medical discourse, there is a decided tendency for it to be used in reference to individual behavioural patterns that affect disease status (Bandura 1984). These patterns are most often operationalised as habits of so-called 'behaviours', measured discretely and independently (Coreil *et al.* 1985, Dean 1988; Dean *et al.* 1995), quantified as behavioural risk factors and subsequently targeted for strategic planning in public health interventions (*e.g.* smoking, physical activity, diet and alcohol consumption). Lifestyle then is derived from, and directly related to risk factors. Examined in this way lifestyle is conceptualised as a pathology, based on a number of discrete and specific behaviours that epidemiologists deem risky (Frohlich and Potvin 1999a).

The behavioural determinism that the term lifestyle has taken on has several ramifications within the field of public health generally and more specifically with reference to our understanding of how disease may come about in contexts. Indeed, it suffers from a similar problem to that of health inequalities research; behaviours are studied independently of the social

context, in isolation from other individuals, and as practices devoid of social meaning.

We suggest that what are now entitled 'behaviours' by some proponents of the bio-medical lifestyle discourse can also be understood as social practices; practices that are instantiations of the social system. Many researchers who utilise the notion of lifestyle as a number of individual health-related behaviours are guided by the belief that behaviour change comes about primarily through some form of self-regulation, whether this be through cognitive factors (Becker 1974, Ajzen and Fishbein 1980) or through volition and self-control (Baumeister and Heatherton 1996). Implicitly, by analysing behaviour from this angle it is not understood in relationship to its position within the social structure, *i.e.* with regard to the rules and resources of society, but rather, as some form of activity which is ultimately under the individual's control.

Not only is lifestyle often understood to be a behaviour or a set of behaviours practised and controllable through the self, but it is further implied that behaviour can be divorced from the social context whence it ensues (Coreil *et al.* 1985, Dean 1988). The individual is seen to be ultimately responsible for her/his behaviour as if there were no systemic influences, sociocultural context, or social meaning ascribed to the behaviour. This has led to an understanding of lifestyle that views the individual in a sort of behavioural vacuum; outside socio-cultural influences, struggling to master her/his vices.

Lifestyle as a set of social practices

To change the tendency to approach the study of lifestyle as an individual behavioural attribute estranged from the context, a useful framework might conceive of lifestyles as patterns and ways of living or as behaviours and their interactions with cultural, social and psycho-social factors (Dean 1988). To develop such a framework we turn to practice theory, theory that attempts to understand people's actions by locating the point of reference in social practice from which the beliefs or actions emerge. Practice theory seeks out configurations of social relations that move people to act in ways that produce the effects we observe (Ortner 1989). Furthermore, practice theory understands practices as emerging from structure, reproducing structure, but also capable of transforming structure. Rather than viewing structure as some sort of building, machine or organism[4] acting on people's practices, structure is doubly practised, being both informed and structured by people's practices as well as being embodied by people, in the sense of being a framework of dispositions (Ortner 1989). With practice theory we are concerned with the ways in which a given social order mediates the impact of external events by shaping the ways in which actors experience and respond to these events. Much of the response can be understood as

structural constraints and opportunities, these constraints and opportunities being reflected within social practices. Social practices are therefore defined here as any form of human action or interaction insofar as they are recognised as reverberating with features of power relations (Ortner 1989).

Building on practice theory, then, we suggest that lifestyles could be understood as generated practices – practices that both reinforce and emerge from the context. Williams (1995) has similarly explored how to theorise the structure-agency problem in relation to health-related behaviour. He draws on the work of Pierre Bourdieu in an attempt to construct a theoretical model of social practice that includes consideration of the social structure and patterns of social life. Rather than focus on health-related behaviours, Williams favours a conceptualisation of such 'behaviours' as 'part and parcel of this implicit, routinised, practical logic of daily life' (Williams 1995: 598).

Similarly to Williams, then, rather than viewing lifestyle as a set of individual 'behaviours' we will argue that the analysis of social practices that generate lifestyles would yield a richer understanding of how context is related to disease status. Context in this sense is analogous to what is referred to as structure by sociologists; a set of any elements between which, or between certain sub-sets of which, relations are defined (Lane 1970). By examining the elements of relations, contextual analyses would be concerned with the effects of characteristics that define groups by taking into account the social practices within a context, moving the field away from the individualisation of risk and from viewing context simply as the aggregation of individual traits.

This change leads to a reconceptualisation of lifestyle as a collective attribute given that individuals are not alone in creating and re-creating the social structure through their practices. In so doing, we first move from methodological individualism to a contextualised study of disease. Second, we may be better able to link with social theory to provide an explanation as to how social context may influence disease patterns.

Lifestyle viewed as a collective attribute, or what we henceforth will call *collective lifestyles*, then becomes an analytic tool with which we could strive to understand how structure and practices influence disease outcomes. While we are conscious of the limits of the term lifestyle, and the connotations that the word carries, we re-appropriate it and offer a collective dimension. Collective lifestyles are defined here not just as the behaviours that people engage in, but rather, as the relationship between people's social conditions and their social practices. Social conditions are here defined as factors that involve an individual's relationship to other people. This includes positions occupied within the social and economic structures of society, such as one's race, SES, gender, etc. (Link and Phelan 1995). Furthermore, the idea of collective lifestyles is that the relationship between social conditions and practices is a collective experience and, therefore, may have similar influences on those that partake in this experience (Frohlich

and Potvin 1999b). This does not imply, however, that everyone within a context will have the same manner of expressing collective lifestyles. There will, rather, be patterns of expression amongst people in similar contexts.

Some theoretical considerations

To overcome some of the epidemiological shortcomings in relation to social variables such as lifestyle, we draw on the world of the social sciences generally, and on practice theory more specifically. Using existing social theory we endeavour to develop upon this corpus of knowledge to explain how collective lifestyles might come about and to provide a framework with which future studies could better analyse context and disease.

Capability theory and health inequalities

Amartya Sen has tackled the thorny issue of inequality for many years, positioning himself firmly among, but in distinction from, existing theories of distributive justice. On the one hand, adherents to the Rawlsian theory of distributive justice hold that equality comes about when primary goods (such as income) are distributed such that the worst off in society are as well off as they could be[5]. Utilitarians, on the other hand, are more concerned with the utility yielded from goods and the distribution of utilities amongst a population. Sen's notion of equality moves beyond a conceptualisation of equality based on goods themselves or on the utility extracted from goods. He focuses instead on what people are actually able to extract from goods given their particular needs and abilities (Sen 1992).

Sen's theory is based on two concepts; functionings and capabilities. 'Functionings represent parts of the state of a person... some functionings are very elementary, such as being nourished... others may be more complex such as achieving self-respect. The capability of a person reflects the alternative combinations of functionings the person can achieve, and from which he or she can choose one collection' (Nussbaum and Sen 1993: 31). Capability, therefore, represents the combination of functionings that a person considers her/himself capable of attaining. To exemplify the distinction between the three notions of equality, the example of food is particularly helpful. Rawlsians would consider access to an adequate food supply a requirement for equality whereas utilitarians would take into consideration the utility rendered by the consumption of food. Sen argues that equality should be evaluated based, instead, on the nutritional level that an individual extracts from the food supply.

This notion of equality is particularly sensitive to the variation in capabilities that individuals enjoy. Given that there is important inter-individual variation in the ability to convert primary goods into the achievements of wellbeing, Sen argues that traditional notions of equality that focus too heavily on primary goods alone miss this critical component of equality.

> Once it is recognised that the relation between income and capabilities varies between communities and between people in the same community, the minimally adequate income level for reaching the same minimally acceptable capability levels will be seen as variable-depending on personal and social characteristics (Nussbaum and Sen 1993: 41).

So, for instance, the capability of a single working woman with three children who earns $25,000 per annum will not necessarily be the same as that of a post-doctoral student without children earning the same amount on her scholarship. The difference is not simply inherent to the primary good, the amount of money, but what that good can be converted into by the individual by virtue of her situation. In other words, differently constructed and situated peoples require different amounts (and perhaps types) of goods to satisfy the same needs.

Implicitly Sen's capability theory raises the issue of choice. Rather than basing one's evaluation of equality on access to resources we must examine the choices structured by the situation that an individual is in, and we must not assume that the same results arise from the two evaluations. Comparisons of resources or primary goods will therefore be insufficient as a basis for comparing equality as they are but the instruments of achieving freedom. Capability reflects the freedom to pursue these elements. What is crucial to grasp is that there are inter-social variations in the relation between incomes and capabilities.

Sen offers, through capability theory, a crucial insight for studies of context. As described previously, much of what we currently examine as context is either articulated as compositional or contextual effects, both of which are generally viewed to have a certain generalisability. In this way, contexts with fewer resources would generally be thought to yield populations in less good health. Sen argues that we must ensure an understanding of how the resources are used before making normative judgements as to whether or not the resources are yielding the outcomes that we might expect. Following the arguments made earlier in this paper, this would imply an examination of the relationship between people's practices and the structure.

The question that remains to be tackled therefore is how we could operationalise these capabilities, that is, in what way can we determine variation? To do so the following section of this paper borrows some basic notions from Pierre Bourdieu's notion of *habitus* and Anthony Giddens' structuration theory. The contrasting views of these two writers regarding the genesis of social practices in relation to social structure has received particular attention and refinement in recent years. Furthermore, they help shift away from explanations of health-related behaviour simply in terms of health beliefs by grounding actions in people's daily lives (Williams 1995).

Structuration theory and Giddens

Giddens, for conceptual clarity, defines three major components of his social theory: structure, system and structuration. Structure is a set of rules and

resources marked by the absence of the subject. Social systems, on the other hand, comprise the situated activities of human agents. When analysing the structuration of social systems we study the modes in which such systems are produced and reproduced by agents by drawing upon rules and resources. In *The Constitution of Society* (1984), Giddens describes structural properties of social systems as being both the medium as well as the outcome of recursively organised social practices. There is no uni-directionality between structure and agency, they are recursive and co-dependent. Structure is not possible without action because action reproduces structure. Action is not possible without structure because action begins with a given structure that was the result of prior actions. An agent is not a dependent subject of action but an active individual who constructs social behaviour (Cockerham *et al.* 1997). This is the basis of Giddens' structuration theory.

An essential element of the theory, in distinction from traditional structural/functionalists is the emphasis given to 'practical consciousness', an individual's tacit understanding of the 'goings on' in the context of social life. Structure has no existence outside the knowledge that agents have regarding their daily activities. This is embodied, for Giddens, in his notion of routinisation, the everyday activities that are continually being produced and reproduced. Routine, he argues, is integral both to the continuity of the personality of the agent, as well as to the institutions of society. The routinised activities do not just happen, but are 'made to happen' by the habitual model of reflexive monitoring of action which individuals sustain in circumstances and co-presence (Giddens 1984: 64). Agents therefore are conscious individuals, a distinction with structuralist thinking which tends to posit that agents are subordinate to the dictates of greater structural forces, often implying a certain non-reflexivity. Giddens proposes that action comes about as a result of the purposive, reasoning behaviour of agents and to its intersection with constraining and enabling features of the social and material contexts of that behaviour. Routinisation operates on two levels. At the level of the individual, it provides for ontological security in the predictability of events. At a collective level, routinisation is critical to the workings of institutions which exist by virtue of the continued reproduction of routines.

Giddens has also tackled certain issues regarding the current understanding of lifestyle in *Modernity and Self-Identity* (1991). According to him, lifestyle is a set of more or less integrated practices embraced, in part, to give material form to a particular need for self-identity. Lifestyle is furthermore not something forced upon an individual, but rather, adopted. Thus, there is again an important element of reflexivity involved. Lifestyle is therefore a cluster of habits and orientations that are routinised into; 'habits of dress, eating, modes of acting and favoured milieux for encountering others' (Giddens 1991: 81). Furthermore, lifestyles are characteristically attached to, and expressive of, specific milieu of action; giving some credence to the notion that lifestyles may be the expression of context.

Habitus and Bourdieu

Bourdieu affords us a slightly different theory of social action that helps to explain the recurrence of social practices over time. He does this by examining individuals' routine practices as influenced by the external structure of their social world and the contribution that these practices then make to the maintenance of the same structure. His theory of practice seeks to escape the objectivism of action viewed as a mechanistic reaction devoid of the agent, while concurrently avoiding subjectivism which describes action as the deliberate accomplishment of a conscious intention (Bourdieu 1992). It becomes clear, however, that Bourdieu awards epistemological priority to objective conditions over subjectivist understanding and to the reflexive nature of agency, although he considers both to be important (Cockerham *et al.* 1997, Williams 1995).

The epistemological privilege awarded to objectivism is particularly clear when plunging into his conceptualisation of *habitus*. Bourdieu defines *habitus* as:

> systems of durable, transposable dispositions, structured structures predisposed to operate as structuring structures, that is, as principles which generate and organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the conditions necessary in order to attain them (Bourdieu 1980: 53).

Habitus is a form of transcendental historic, a socialised body, a structured body, a body that has incorporated the immanent structures of this world and that, in response, structures perception and action in this world. The *habitus* is a: 'system that is socially constituted of structured and structuring dispositions that are learned through practices'(Bourdieu 1992: 97).

The *habitus* is produced by the objective conditions of existence combined with positions in the social structure, it is a system of schemes that generates practices and schemes of perceptions and tastes that together result in a lifestyle. Lifestyles are viewed as a set system of classified and classifying practices involving different tastes. These practices consist of particular forms of dress, food, music, art, sport, leisure activities, etc. – all of which express class, gender, and ethnic distinctions (Cockerham *et al.* 1997). While individuals choose their lifestyle they are, however, predisposed by their *habitus* toward certain choices; thereby proposing a certain determinism. Agents' choices tend to be consistent with their *habitus*.

Habitus, structuration theory and collective lifestyles

Bourdieu and Giddens differ considerably regarding the importance they place on the roles of structure and agency in determining lifestyles. First,

Bourdieu gives more credence to class structure, and hence, categories of perception and appreciation are largely determined by one's class position. Giddens, on the other hand, views individuals as being more autonomous, or less restrained by their class positions. For Giddens, modernity provides a multitude of choices, and individuals create and maintain their identity through their routine practices. In this sense, individuals' choices shape their identity rather than one's class identity shaping one's choices, as Bourdieu would view it. The individual, for Giddens, thus plays a greater role, and choice emerges as the dominant factor in lifestyle formation.

Second, for Bourdieu the agent is oddly absent, being somewhat passive in the process of structuring perception and action. Indeed, the notion of *habitus* has been criticised for being the reflection and replication of exterior structures rather than a locus for voluntary action (Alexander 1995). Meaning therefore appears not to be of much concern to Bourdieu as the *habitus* merely translates material structures into subjective entities in a non-interpretive way; actors are in a continuous adaptation to their environment rather than actively and consciously interacting with it. Giddens, on the other hand, gives greater room for individuals to construct social behaviour. Indeed, Giddens generally tends to emphasise individual choice while Bourdieu is more focused on the effects of the structure in shaping practices.

These differences are reflected in the two theorists' notions of lifestyle. Bourdieu's notion of *habitus* proposes a template defining people's social practices that goes beyond the behavioural notion of lifestyle; one that considers only 'behaviours' believed to be associated with disease outcomes (smoking, physical activity, etc.) The *habitus* is closer to a notion of lifestyle, as discussed by Williams (1995), that links together in a theoretically meaningful way lifestyle choices (agency), practices and the broader social and material determinants (structure). However, Bourdieu is rather deterministic in his philosophy; lifestyles are somehow predetermined by *habitus*. Although Bourdieu claims that individuals choose their lifestyles, they are not completely free in this endeavour as their *habitus* predisposes them towards certain choices.

While Giddens does not ignore the influence of others on an individual's lifestyle choices, what is most important is that the lifestyles individuals choose 'involve a cluster of habits and orientations and hence has a certain unity-important to a continuing sense of ontological security...' (Giddens 1991: 82). It is the plurality of choice offered by the conditions of modernity that increasingly forces individuals to associate their lifestyle choices with their notions of self-identity. In Giddens' analysis, however, the structural component remains relatively abstract. Also, he notes that lifestyle variations between groups are elementary structuring features of stratification, not just the results of class differentiation (Giddens 1991).

Taking into consideration the differences between the positions of Bourdieu and Giddens we believe that Bourdieu's emphasis on the importance of class structure in bringing about lifestyle is potentially useful, given

that the relational aspect to the *habitus* may help us understand how health inequalities come about; that is, how social relations, through power, may ascribe certain lifestyles and lead to health inequalities. Giddens does not confront such issues as he focuses much more on individual choices, rather than on the constraints regarding choices that are brought about by power relations. Also, the *habitus* resonates with the notion of collective lifestyles by taking into account both material conditions (class) and behaviours (social practices).

Epistemologically, however, it may be useful to consider a structure-agent recursivity with reference to collective lifestyles, rather than the *habitus* of Bourdieu which structures the practices of agents and thus is clearly a precursor. A recursive conception of the relationship between structure and practices moves us away from the predominantly deterministic approach taken by researchers in social epidemiology and other sub-fields of public health. It has been noted, within the field of health promotion particularly, that there is a tendency to have a non-resolution with reference to the roles of free will and determinism in explaining human behaviour (Kelly and Charlton 1995). It will be argued that collective lifestyles arise, quite frequently, from a structure-agent recursivity which produces and reproduces tastes, values and behaviours. Collective lifestyles are thus an expression of a shared way of relating and acting in a given environment, and therefore it is this expression that is the collective lifestyle – a form of meta-lifestyle.

Giddens' structuration theory does however suffer from what Margaret Archer (1988) has termed central conflation. Archer's contention with structuration theory is that the logical conclusion of the duality of structure and agency; that is, that structure can never be detached from human agency analytically, is that there is no way of untying the constitutive elements. Archer continues her critique by proposing that this interconnectedness leads to a complete lack of autonomy for either structure or agency. In lacking any autonomy, the empirical examination of their interplay becomes impossible. Perhaps even more importantly, critical problems arise when trying to explain change. Structuration theory, due to its persistent reproduction through recursivity, does not allow for some practices to engender replication, with others initiating transformation. As Archer states: 'This ... derives from Giddens not answering the "when" questions – when can actors be transformative ... and when are they trapped into replication?' (Archer, 1988: 87). This is an important shortcoming of the use of structuration theory and one that would need to be addressed if we were interested in explaining how collective lifestyles could change.

Context, collective lifestyles, and health inequalities

We thus propose that collective lifestyles could be analysed as the observable aspects of context; observable through individuals' practices.

Methodologically, we also propose, in distinction from classic epidemiological studies, that a recursive aspect be added to the study of context. The mechanisms of recursivity are therefore, at once, both individual and collective, as the individual 'acts out' the practices that feed into a larger system. It is not only the context (or structure) that acts on individuals, but individuals are constantly re-creating the conditions that make this structure (the context) possible. This proposal puts up for question the formerly discussed assumptions made by many current researchers interested in context; that context is either the reflection of the varying distribution of types of people whose individual characteristics influence disease (that is, similar types of people will have similar types of disease experiences wherever they live) or that the disease experience of particular types of individuals depends primarily on the attributes of the area, so that similar types of people have different disease status from one place to another (Shouls *et al.* 1996). We adhere to a notion of context that is more dynamic than either of these propositions and suggest that context is the reflection of both place and the characteristics of people of the place, and that this relationship is recursive and influences disease states. Contexts will be reflected in the collective lifestyles of people living there, both in terms of people's relationship to the attributes of the area as well as to their similitude to each other in terms of their social practices. Place cannot influence social practices without groups of people who are influencing place through their social practices. There is a caveat however to this methodological stance, as mentioned previously, in that it has difficulty in explaining how change occurs (the conflationary problem). For the time being it may be more promising to use this theoretical tool for describing *what* certain collective lifestyles are rather than *how* they can change.

This brings us to the relationship between collective lifestyles and social inequalities in disease. To examine inequalities as a function of context using Sen's notion of capability we could presumably not just examine resources, but also what people are able to do with the resources in their environment. We would therefore argue that these aspects are not reducible to the enumeration of material goods, but also include people's social practices as they are a critical empirical aspect of the social structure. It may well be that by evaluating resources (whether they be individual aggregate or ecologic) researchers take insufficient account of social inequality. It is not simply a question of equating more resources (or particular types of resources) with more opportunities or fewer resources with constraints. We would therefore suggest taking Sen's argument and introducing it to structuration theory to understand what context is, how it is reproduced, and how social inequalities in disease arise in different contexts.

Lastly, the theoretical arguments raised here attempt to reconcile the distinction made in the context literature between contextual and compositional effects by suggesting that 'cultural context' (shared reinforced practices) and 'structural context' (local institutions and their rules and

ability to distribute resources) are very much intertwined. Indeed, the context that influences health outcomes is a combination of both social practices and social structure.

An example in lieu of a conclusion

Suppose we are interested in understanding if and how smoking initiation rates are differentially distributed among pre-adolescents in several neighbourhoods. In traditional context studies we might operationalise context as the neighbourhood and develop statistical models that would enumerate a certain number of aggregate variables, such as education or income that would classify the neighbourhoods based on deprivation levels, etc. We would then develop a model based on its ability to predict the variation in smoking rates we observed across our neighbourhoods. Others might examine the relationship between smoking initiation rates and traditional lifestyle factors such as exercise or alcohol consumption amongst teenagers.

Neither of these procedures, however, inform us as to how the smoking rates came to be differentially distributed or how these macro-level aggregate variables are translated, and reinforced, by practices. If we were, instead, to employ the notion of collective lifestyles we would examine the relationship between structure and practices in these neighbourhoods and endeavour to understand how this relationship impinges on smoking initiation. So, for instance, we could examine structural aspects of the neighbourhood, or the rules and resources, in relation to smoking. Examples might include non-smoking public places, the number of stores that sell cigarettes, the number of bars present in the area, etc. But this too will be insufficient. By simply giving an enumeration of the resources available in the various neighbourhoods we have no idea as to how they are used. Indeed, an enumeration tells us little about how individuals interact with their resources; what their social practices are. Nor does an enumeration tell us anything about the population's agency or their capabilities. So, for instance, in one neighbourhood it may be the local norm to smoke in non-smoking public places to demonstrate one's ability to oppose authority. Or in a seemingly 'non-smoking' neighbourhood where teenagers' access to cigarettes is made difficult by stores' stringent adherence to laws prohibiting sales to minors, there is an illicit trade between older teenagers and pre-adolescents, with the former providing the latter with cigarettes for profit. These two examples elucidate aspects of the collective lifestyles in each of these neighbourhoods.

This approach differs from a more traditional social epidemiological model in that it examines the social practices related to smoking in an attempt to understand how smoking is practised in that area; what rules and resources people draw on to smoke, or not, and the ways in which people, through their practices reinforce these rules and resources. One examines,

then, the routine aspects of smoking in neighbourhoods: the sale of cigarettes, the places in which people smoke, who is smoking together, and how smoking is perceived.

Together these aspects give us an idea of the collective lifestyle of each of these neighbourhoods. We suggest that through this analytic tool we may be better able to understand how it is that disease rates distribute differently across areas, and that it could also serve to improve the development of more 'context dependent' public health intervention efforts.

Notes

1. Recursivity is taken here to signify that the social structure is both the medium as well as the outcome of social practices.
2. The concept of 'race' and its utilisation in public health databases has been highly criticised (Krieger *et al.* 1993, Krieger and Fee 1994) for its underlying biological determinism and its racist potential. It will be used here given its ubiquitous use in the public health literature but with full knowledge that it is a highly controversial term.
3. An example of this is the Burnam scale which is used to classify people's socio-economic status through their education using three categories: no qualifications and less than ordinary level (exams usually taken at age 16), ordinary level and equivalents, and advanced level (exams usually taken at age 18) and equivalents or higher.
4. This is a classic structuralist position that can lead to deterministic conclusions such as those we question in social epidemiology, *i.e.* structure constrains actors and determines how they will act.
5. John Rawls' book *A Theory of Justice* (1971) has greatly influenced thinking in 20th century political philosophy. Rawls argues that under conditions of impartiality, individuals would choose to distribute primary goods so that the worst off were as well off as they could be. This is what he terms the difference principle.

Address for correspondence: Katherine L. Frohlich, University of California, Berkeley, School of Public Health, 140 Warren Hall, Berkeley, CA 94720-7360
e-mail: katefr@uclink.berkeley.edu

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